

Hi-Fidelity, Electronic Components & Equipment Catalogue

5TH. EDITION

G.W. SMITH & CO. (RADIO) LTD

World Radio History



TERMS OF BUSINESS

GENERAL. All orders accepted by the company are subject to the terms and conditions hereunder, notwithstanding anything which may be stated to the contrary on customer's order forms or correspondence. No goods are supplied on approval or on sale or return. *All prices are subject to alteration without notice and goods are supplied at prices ruling at date of despatch.*

ACCEPTANCE OF ORDERS. No orders placed with the company shall be deemed to be accepted until the company has specifically indicated acceptance.

METHOD OF PAYMENT. Payment should be made by cash, postal order, money order or cheque. All cash should be sent by registered mail. Postal orders, money orders and cheques should be made payable to G.W. SMITH & CO. (RADIO) LTD., and crossed. Regret no C.O.D.

ACCOUNTS. Official purchasing orders will be accepted from all Government departments recognised educational authorities and industrial organisations with established credit standing.

NEW ACCOUNTS. We will be pleased to open new credit accounts subject to the usual conditions.

CARRIAGE/POSTAGE. Charges quoted or a minimum of 3/- must be included with all orders. Where no amount is stated please add sufficient money to cover the cost of postage or carriage for the item(s) being ordered.

CLAIMS. The company accepts no responsibility for alleged shortage of goods, damage or other discrepancy unless notification is received within ten days of the date of despatch of goods.

DESPATCH. Orders are accepted and delivery promises made in good faith but the company accepts no responsibility whatsoever for delays in execution of any order and the company shall not be liable for damages for non-delivery.

NON-DELIVERY. Failure to advise non-delivery of goods within ten days from date of despatch will be held to free the company from any responsibility.

IMPORTED GOODS. Prices of imported goods are based on existing import duties. The company reserves the right to determine any order or contract if duty or increased duty affecting the order or contract is imposed.

DAMAGE. We will replace free of charge any goods proved to our satisfaction to have been damaged in transit provided that within three days after delivery both we and the carriers have received notification in writing of the occurrence of the damage and also the nature and extent of such damage. In such cases the packing and insurance slips should be retained.

GUARANTEE. We guarantee to repair or replace free of charge any goods found to our satisfaction to be defective due to faulty workmanship or materials provided such goods are found to our satisfaction not to have been misused or damaged in any way and provided that defective merchandise or parts are promptly returned carriage paid to the company's address. The company shall be under no liability in respect of defects whatsoever in goods delivered or for any injury, damage or loss resulting from such defects.

RETURNS. No return of goods supplied against order will be accepted unless permission is previously given in writing and in that event the return must be made carriage paid.

SPECIFICATIONS. Every effort has been made to ensure accurate descriptions of all merchandise. We cannot however accept any responsibility for contingencies arising from errors and reserve the right to alter specifications without notice.

TRADE AND EXPORT. We are able to supply most of the items listed in this catalogue in bulk quantities at special discount prices. All inquiries of this nature should be sent to us on official company letter heading.

G.W. SMITH & CO. (RADIO) LTD.

DIRECTORS: G.W. SMITH (MANAGING) D.G. SMITH

ELECTRONIC COMPONENTS & EQUIPMENT

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311, EDGWARE ROAD, LONDON, W.2. TEL: 01-262 0387

OUR REF:

YOUR REF:

October, 1970.

Comprehensive Catalogue 5th Edition

Dear Customer,

We trust you will find the 5th edition of our Catalogue interesting reading and feel sure that there must be many items throughout its 248 pages to suit your requirements. Our prices are most competitive and you can even save the cost of the Catalogue by using the discount coupons below.

It will pay you to call in and browse around any of our three retail shops where you will also find many more special offers of exclusive lines too limited to include in the catalogue.

Our Mail Order Department is at your service but please include sufficient money to cover post and packing charges to avoid any delay in despatching your order.


With the advent of Decimal Currency we have quoted many prices in both Sterling and Decimal Currency and a conversion guide is given on the inside back page.

All prices are correct at time of printing but subject to alteration without notice.

For overseas visitors we can supply goods free of tax for personal export.

Assuring you of our best attention at all times.

Yours sincerely,
FOR G.W. SMITH & CO. (RADIO) LTD.


D. G. Smith, Director.

P.S. Watch our advertisements for the opening date of our new shop at 27, Tottenham Court Road.

SPECIALIST DISTRIBUTORS OF:

ELECTRONIC COMPONENTS · TEST EQUIPMENT · COMMUNICATION EQUIPMENT · HI FIDELITY EQUIPMENT

HOW TO USE THESE DISCOUNT COUPONS

Each coupon is worth 2/- when used as instructed. For every complete £1 of your order enclose one coupon and deduct 2/- . Example for an order of £3.5.0 (not including postage) send £2.19.0 cash and three coupons plus postage charges, these coupons can,

TELETON HIGH QUALITY RADIOS



£48.19.6 Carr. 10/-
(£48.97½ Carr. 50p)

TELETON MODEL: TF182 8 BAND WORLD-WIDE RADIO COMMUNICATIONS RECEIVER (INCLUDING MARINE BAND AND FOUR SHORT-WAVE BANDS)

Another fine example designed to meet the requirements of short-wave enthusiasts. Operated as either battery (9 V) or mains (115/230 V) it features many of the most modern developments in home receivers.

Features include:

(BFO) Beat Frequency Oscillator for (SSB) Single Side-band reception. Clear Constant Wave (Morse Code) reception. (AFC) Automatic Drift-free reception on FM Band. Squelch Control to eliminate noise. Combined tuning and battery condition meter. Switched Din Plug Connection for tape recording/playback.

TECHNICAL DATA

28 transistors, 14 diodes, 2 thermistors. 5-ft. telescopic aerial for FM Marine and SW and a twin ferrite bar for LW and AM Bands. Frequency Ranges: LW—(150–400 kHz); AM—(535–1,605 kHz); MB—(1.8–4 MHz); SW¹—(4–12 MHz); SW²—(12–22 MHz); SW³—(22–30 MHz); SW⁴—(49–M Bandspread); FM—(88–108 MHz). Power Output: Max. 1.5 watts; undistorted 1 watt. Power Supply: Battery 6 × 1.5 V; A.C. 115/230 V 60 Hz. Earphone Jack Sockets, Tape Din-plu sockets, switched tuner. (H) 10½" (W) 19½" (G) 5½". 15.6 lb. with batteries.



£48.19.6 Carr. 10/-
(£48.97½ Carr. 50p)

TELETON MODEL: TF181 8 BAND WORLD-WIDE RADIO COMMUNICATIONS RECEIVER (INCLUDING AIRCRAFT AND PUBLIC SERVICE BANDS)

A highly sensitive 8-band all-wave superheterodyne receiver, operated by either battery (9 V) or mains a.c. (115 V or 230 V). Features include: piano-key pushbutton controls, combined tuning and battery conditions meter, fine tuning control for easy short-wave band reception and separate tone and volume controls.

Circuitry includes beat frequency oscillation (BFO) for clear single side band (SSB) and constant wave (morse code signals) reception. In addition, automatic frequency control (AFC) ensures drift-free reception and a Squelch Control reduces background noise. Complete with world map and time-zone dial

TECHNICAL DATA

28 transistors, 14 diodes. Twin ferrite bar plus 5-ft. telescopic aerial. Frequency Ranges: LW—(150–350 kHz); PSB¹—(30–50 MHz); AM—(530–1,600 kHz); FM—(87–108 MHz); SW¹—(4–12 MHz); AIR—(108–135 MHz); SW²—(12–22 MHz); PSB²—(147–174 MHz). Power Output: Max. 1.5 watts; undistorted 1 watt. Power Supply: Batteries 6 × 1.5 V; A.C. 115/230 V 50 Hz. (H) 10½" (W) 19½" (D) 5½". Weight: 15.6 lb. with batteries.



£37.10.0 Carr. 7/6
(£37.50 Carr. 37½p)

TELETON MODEL: T1931 COMPACT CASSETTE TAPE RECORDER WITH AM/FM RADIO

A two-in-one machine that can do more than two separate machines:—

● If you want a good two-band AM/FM Radio Receiver—then this is one of many you can choose from ● If you are looking for a Cassette Tape Recorder and Player—then this is again, one of many to choose from ● But if you want a machine that lets you listen to and enjoy a radio programme, at the same time as you are recording it—then this is the machine for you.

Truly portable with its a.c./d.c. facility plus a built-in radio that provides a continuous variety of programmes to record from, means that you can—by simply pressing buttons, record that favourite programme wherever you are. The monitor switch allows you to listen to the recording being made or, if you prefer, the recording will continue without any audible sound at all. The recording made, can then be replayed at some later date.

Its many features include: A remote-control mike, automatic frequency control on FM, easy-to-head. Battery level and recording level meters plus simple push-button controls and a speedy system for loading and unloading your cassettes.

TECHNICAL DATA

RADIO:

6 transistors, 6 diodes. Frequency Range: AM—540–1,605 kHz; FM—88–108 MHz Sensitivity: AM—200 μV at 50 mW Output; FM—10 μV at 50 mW Output. Signal-to-Noise Ratio: AM—25 dB over (Input 60 dB); FM—40 dB over (Input 28 dB).

TAPE RECORDER:

9 transistors, 3 diodes, 2 thermistors. Tape: C30 to C120 Cassettes. Tape Speed: 1½" per sec. Tape Width: 0.15" (3.8 mm). Track Width: 0.059" (1.5 mm). Recording System: A.C. Bias. Erasing System: A.C. Erasure. Output Power: 1.4 (max.) 900 MW (at 10% distortion). Frequency Response: 100–8,000 Hz. Wow and Flutter: Less than 0.35%. Signal-to-Noise Ratio: Better than 40 dB. Level Indicator: VU-Meter. Power Supply: A.C.—220/240 V 50 Hz; D.C.—9 V (6 × 1.5 V). Speaker: 4½" × 3½", impedance 8 ohms. Dimensions: (W) 12½" × (H) 9" × (D) 3½". Weight: 6.9 lb. (including accessories).

JET STREAM

The Jet Stream Radio is a 9-transistor three-waveband receiver of high quality and superb performance. Every Jet Stream Radio is tested by skilled engineers before leaving the factory. Jet Stream has all the features the listening enthusiast has come to expect. VHF Aircraft Band performance plus quality output for both close in and distant listening. Ideal for home or at the airport.



Handy size to carry, the Jet Stream gives you the best on all wave bands. Superb performance on medium and long waves ensures interference-free listening on the entertainment wavelengths.

Jet Stream is backed by Park Air Electronics 12-month guarantee and service work may be undertaken by their own skilled personnel. When you buy Jet Stream you buy a radio quality built for your enjoyment for years to come.

SPECIFICATIONS

Circuit: 3-Band 9-Transistor Superheterodyne
Tuning Range: MW 530-1600 kHz; LW 150-255 kHz; VHF Aircraft 108-136 MHz
Antenna: 10 x 140 mm (1 1/2" x 5 1/2") Ferrite Core
 64 cm (25 1/8") Telescopic Antenna
Power Output: Undistorted 300 mW, maximum 500 mW
Speaker: 9 cm (3 1/2") Dynamic
Power Supply: 4 x Size "PENLIGHT" 1.5V battery (HP1)
Dimension: 174 x 100 x 39 mm (6 1/2" x 3 3/4" x 1 1/2")
Weight: 500 g (1.1 lb.) with batteries

£16.16.0 (£16.80)

HITACHI WH. 1160 MARINE RADIO



A marine radio receiver in genuine leather-covered cabinet. Coverage is over the medium, long and short wavebands plus marine band. A special feature is the aerial on a rotatable mounting and sighting device and 360-degree dial. Additional features are a radio DF switch and beat frequency oscillator for non-modulated carriers.

Dimensions: 9 1/2" x 6 1/2" x 3 3/4".

Weight: 5.5 lb. approx.

Uses 4 U2 batteries or equivalents.

£21.0.0. (£21.00) Carr. 5/- (25p)

VANTONE MODEL 1601 AM/AIR BAND RECEIVER

Covers medium wave and aircraft band 108-136 MHz. Built-in loudspeaker and telescopic aerial. Earphone socket. Leatherette case with shoulder strap. Operates on 200/240V a.c. or internal batteries.



EXCEPTIONAL VALUE

£10.19.6
Carr. 7/6

EAGLE US.50 ULTRA SONIC REMOTE SWITCH



Shaped like a small torch and powered by an internal battery, the transmitter sends out a narrow ultra sonic beam when the button is pressed. Directed at the receiver, which can be anything up to 12 metres away, the beam will automatically switch on or off any unit (TV, radio, light, etc.) connected via the receiver.

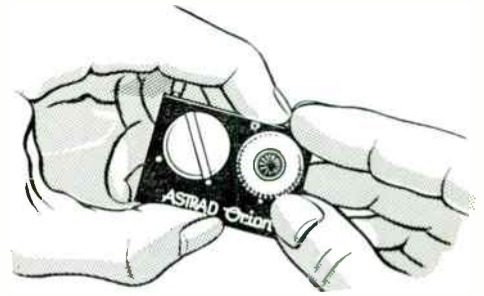
Specification: Maximum Loading: 600 watts. Operating Frequency: 38 kHz. £9.10.6.

ASTRAD ORION

'WORLD'S SMALLEST RADIO'

Made in Russia and utilises the latest space-age techniques. Weight less than 1 oz., size $1\frac{1}{8}'' \times 1\frac{3}{8}'' \times \frac{3}{8}''$.

Two waveband, long and medium. Coupled to the receiver is a miniature earphone. Supplied in presentation case complete with earphone and battery.



PRICE 39/6

Spare mercury battery 2/9
Optional battery charger 19/6

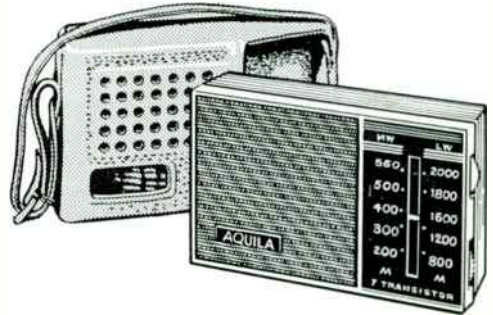
AQUILA

Although the least expensive of the Astrad range this is still a quality pocket portable radio of high performance. The coverage on the two wavebands is excellent. This set features fingertip On/Off control and Volume control. In a durable black and white cabinet. The price includes a leather carrying case.

SPECIFICATIONS

2 wavebands—Medium and Long. 7 transistors. Leather travelling case. Push-pull output. Weight: 9 oz. Dimensions: $4\frac{1}{4}'' \times 1\frac{1}{4}'' \times 2\frac{3}{4}''$. Battery: 1 x 9 volt.

PRICE £5.19.6.



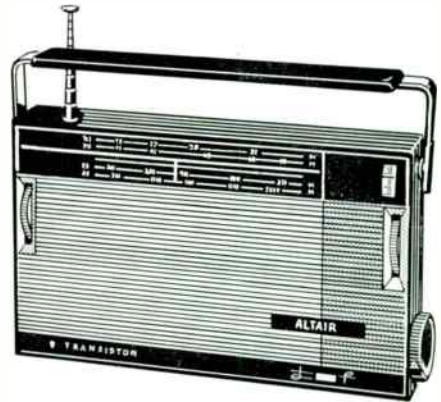
ALTAIR

The Altair has been tastefully designed for the discerning listener requiring a high performance radio at low cost. Particularly outstanding is the performance on short waves. The slow-motion tuning dial and telescopic aerial will put the world at your fingertips. Finished in an attractive compact cabinet.

SPECIFICATIONS

4 wavebands—medium, long and 2 short. 8 transistors. Tone control. Slow-motion tuning. Telescopic aerial. Additional miniature earphone. Aerial and tape recorder sockets. Push-pull output. Weight: $2\frac{1}{4}$ lb. Dimensions: $8\frac{1}{2}'' \times 1\frac{1}{4}'' \times 4\frac{1}{4}''$. Batteries: 2 x 3 volts penlight type.

PRICE £11.19.6.



AURIGA

The Auriga takes its name from the stars and its highly sophisticated transistor circuitry system owes much to the Russian space research programme. The specification includes many features not normally found in radios of this price range. The elegant cabinet has a high quality finish in black and chrome. The well-spaced tuning dial guarantees spot-on reception and may be illuminated at the press of a button.

SPECIFICATIONS

8 wavebands—medium, long and 6 short. 10 solderless lock-fit transistors and 2 diodes. Tone control. External battery, tape recorder and aerial sockets. Telescopic aerial. Push-pull output. Weight: $7\frac{1}{2}$ lb. Dimensions: $11'' \times 3\frac{3}{4}'' \times 7\frac{1}{2}''$. Batteries: 6 x $1\frac{1}{2}$ volts.

PRICE £18.10.0. Carr 5/-





GENERAL TF-161 WORLD WIDE RADIO

6 Wavebands:
 Long Wave 150-350 Kc/s
 Medium Wave 530-1600 Kc/s
 Marine Band 1.6-4 Mc/s
 Short Wave 4-12 Mc/s
 Short Wave 12-22 Mc/s
 FM Band 87-108 Mc/s

35 GNS.

(36.25)
 carr. 7/6 (37½p)

A new all-transistor receiver incorporating 26 solid state devices.

Large 5" speaker for good output, built-in battery/tuning indicator, volume and tone controls, world map and time dial. Telescopic aerials. Earphone jack. Operation on internal batteries or 115/230 volts 50-60 cps. Size: 10" x 13" x 4". Supplied brand new with all accessories.



VHF AIRCRAFT BAND CONVERTER MIDLAND Model 10-502

An entirely new item for the radio enthusiast bringing instant reception of the ground-to-air, air-to-ground waveband. For use with any standard AM or FM radio covering 535-1605 Kc/s, 88-108 Mc/s respectively—with no electrical conversion or connection required. Self-powered by one 9-volt (PP3 type) battery, is merely placed close to the receiving set and then tuned over 110-135 Mc/s which covers the whole aircraft communications band. Volume and reception effectiveness is adjusted by moving both sets to the most favourable position and balancing the vol. controls of each accordingly. Black plastic cabinet with brushed metal front panel and 18" chrome telescopic antenna, size only 4" x 2½" x 2½" (inc. knobs). Complete with battery and full instructions.

£3.12.6 (£3.62½)

VANTONE 8 TRANSISTOR RADIO



A magnificent 2 waveband portable radio. Incorporates 8 semi-conductor devices. Extremely good tone. Covers the medium and long waves. Hundreds of Stations. Supplied complete with leather case, shoulder strap, personal earpiece, telescopic aerial and batteries. £4.19.6 (£4.97½)

NEW IMPROVED NA 5018 MK II JULIETTE 18 TRANSISTOR 5 BAND RADIO WITH A.F.C.

(Automatic Frequency Control on FM)

£35 (£35.00)



Most versatile receiver in the range. Full FM broadcast coverage plus four AM bands: Broadcast (540 to 1600 Kc/s), Marine (1.6 to 4.6 Mc/s), VHF for aircraft, taxis, and all commercial and industrial radio in two bands (108 to 134 Mc/s and 148 to 174 Mc/s). Features include: dial indicator lights with On/Off switch, waveband indicator lamps, swivel-mounted telescopic aerial, earphone jack with automatic speaker cut-off, and AC mains adaptor facilities. Supplied in open-front leather case with carrying handle and fitted with attractive diecast front panel and grille. Size overall: 9½" x 5½" x 3½". Weight 5½ lb.

AFTER SALES SERVICE AND SPARES

Full range of spares available for all imported
 equipment shown in this catalogue
 plus an efficient After Sales Service

UR-1A SOLID STATE 4-BAND AM/SHORT WAVE COMMUNICATION RECEIVER

4 BANDS

- A. 550 kHz–1,605 kHz
- B. 1.6 MHz–4.5 MHz
- C. 4.5 MHz–12 MHz
- D. 12 MHz–30 MHz

The ideal Communication Receiver for the junior ham or short-wave enthusiast. Uses advanced solid state circuitry incorporating FET transistors to ensure higher sensitivity with less noise.

Features:

Electrical Bandspread.
'S' Meter, ANL, SSB, BFO, Sensitivity Control.



EXCELLENT VALUE

£25.0.0 (£25.00) Carr. 10/- (50p)

Built-in Speaker, Low-impedance headphone socket.
Operation from a.c. 230 V or 12 V.DC. d.c.
Size: 320 × 120 × 160 mm.

BARNET HAM-2 SOLID STATE COMMUNICATION RECEIVER

An entirely new four-band all-transistor receiver with the following outstanding features:—

- ILLUMINATED SLIDE RULE DIAL WITH LOGGING SCALE
- FREQUENCY COVERAGE—
BAND 1: 535 kHz – 1,605 MHz
BAND 2: 1.6 MHz – 4.5 MHz
BAND 3: 4.0 MHz – 12 MHz
BAND 4: 11 MHz – 30 MHz
- BANDSPREAD CONTROL
- SIGNAL STRENGTH METER
- AUTOMATIC NOISE LIMITER
- RECEIVE STANDBY SWITCH
- VARIABLE BFO FOR 55B RECEPTION

£27.10.0 (£27.50) Carr. 10/- (50p)



Built-in 4" speaker and phone socket on the front panel for low-impedance headphones. A telescopic aerial is fitted to the rear of the receiver.

Circuit incorporates 1—FET, 10 transistors and 4 diodes.
Operation is for 220/240V a.c.

Supplied complete with full operating instructions.

PERSONAL SHOPPERS WELCOME!

LARGE WALK ROUND SHOPS WITH THOUSANDS OF BARGAINS WHICH WE ARE NOT ABLE TO INCLUDE IN OUR CATALOGUE. OPEN 6 DAYS A WEEK. 9 a.m.—6 p.m. EDGWARE RD. HALF DAY THURS

UNICA COMMUNICATION RECEIVER

MODEL UNR-30

FEATURES

★ 6:1 Spread Dial Ratio Main Tuning ★ BFO Pitch Control for CW/SSB ★ AC Transformer Operation ★ Front Panel Phone Jack ★ Compact and Handy Size.

SPECIFICATIONS

Frequency Range: A band 550-1600 KC; B band 1.5-4.5 MC; C band 4-12 MC; D band 11.5-30 MC. Sensitivity: A band 2 μ V at 50 mW; B band 5 μ V at 50 mW; C band 10 μ V at 50 mW; D band 20 μ V at 50 mW. Selectivity: 20 db \pm 10 KC. IF: 455 KC. Audio Output: 1 watt. Speaker: 3". Main Tuning: 6:1 spread dial ratio tuning. Auxiliary Circuits: (a) BFO pitch control; (b) Phone jack. Tubes Complement: 6BE6 for converter 6BA6 for IF amplifier; 6AV6 for detector, audio amplifier; 6AR5 for power amplifier; 15-313 for rectifier. Power Source: 110-117 Volts, 220-230 Volts AC 50/60 cycles. Power Consumption: 20 watts. Dimensions: 240 mm (W) \times 140 mm (H \times 150 mm (D). Net Weight: 3 Kg. Cabinet: Metal cabinet, finished in grey.



£15.15.0 Carr. 7/6
(£15.75 Carr. 37½p)

LAFAYETTE 5 BAND AM/CW/SSB SOLID STATE AMATEUR AND SW RECEIVER

MODEL HA-600

2 FIELD EFFECT TRANSISTORS
+ 10 TRANSISTORS + 8 DIODES
Product Detector For SSB/CW

5 BANDS

BAND A	BAND B
150 KC To 400 KC	550 KC To 1600 KC
BAND C	BAND D
1.6 MC To 4.8 MC	4.8 MC To 14.6 MC
BAND E	
10.5 MC To 30 MC	



- 10 Transistors, 2 FET's, 7 Diodes, and 1 Zener Diode
- Two Mechanical Filters for Exceptional Selectivity
- Huge Edge-Illuminated Slide Rule Dial with "S" Meter
- 230 Volts AC and 12-Volt DC Negative Ground Operation
- Full 24½ inches of Bandspread On 10-80 Metre Bands
- Automatic Series Gate Noise Limiter With AVC

The HA-600 general coverage receiver combines the latest solid state electronics with sleek, modern appearance to achieve a superb blend of performance and style. Advanced circuitry utilizes two Field Effect Transistors in the front end RF stages to assure high sensitivity with lowest noise factor. 10 high performance transistors and 8 diodes complement the FET's to provide sharp response with exceptional stability. Series Gate noise limiter and automatic volume control circuitry provide efficient noise and audio blasting suppression. Built-in variable BFO permits clear reception of code and single sideband signals. Dual 455 KC mechanical filters assure superior selectivity. Receiver's operation is virtually undisturbed by harmonics or noise from antenna to speaker. Rear panel accessory socket provides convenient connection for audio, output, 12 VDC, ground, and AVC line along with receiver muting connections. Huge flywheel operated slide rule dial has easy-to-read illuminated main tuning, logging and bandspread scales. Electrical bandspread features wide calibration for easier tuning of crowded ham bands. Operates from 230 V AC 60 cycles or 12 V DC (negative ground only) . . . perfect for emergency use! wt. 18 lbs.

SPECIFICATIONS: Sensitivity: 1 μ V at 10 db signal to noise ratio. Selectivity: \pm 6 KC at 60 db down, \pm 2 KC at 6 db down. Intermediate Frequency: 455 KC. BFO Frequency: 455 KC \pm 2.5 KC. Antenna Impedance: 50 - 400 ohms. Audio Power Output: 3-watt at 4 ohms. Speaker Impedance: 4, 8, and 500 ohms. Headphone Impedance: 8 ohms. Receiving Modes: AM-CW-SSB. Power Requirements: 230 Volts 60 cycle AC (17 watts max.) 12 Volts DC (650 ma. max.). Controls: Function, BFO, Volume, Band Selector, R.F. Gain, Antenna Trimmer, and Automatic Noise Limiter On/off. Size: 15W \times 9½D \times 8½"H.

£45 CARR.10/- (£45.00 Carr. 50p)

LAFAYETTE HA.800 SOLID STATE AMATEUR COMMUNICATION RECEIVER

3 FET's + 7 DIODES + 14 TRANSISTORS

- Product Detector for SSB/CW
- Dual Conversion On All Bands
- Two 455 kHz Mechanical Filters for Sharp Selectivity
- FET's for Automatic Radio Frequency Overload Protection
- Zener Voltage Regulated Power Supply
- Series Gate Automatic Noise Limiting
- External Receiver Muting Rear Panel Connection
- Illuminated Calibrated 'S' Meter
- Huge Edge-illuminated Slide Rule Dial

SIX BANDS

- 80 Metres (3.5-4.0 MHz)
- 40 Metres (7.0-7.3 MHz)
- 20 Metres (14-14.35 MHz)
- 15 Metres (21-21.45 MHz)
- 10 Metres (28-29.7 MHz)
- 6 Metres (50-54 MHz)

Model HA-800 receiver covers the 80 through 6 metre amateur bands with outstanding reception of CW, AM and SSB signals. Dual conversion circuitry utilises 3 FET's and 14 transistors + 7 diodes for cool, reliable performance. Tuned RF and 1st mixer stages combine with an FET to provide maximum sensitivity with high front end selectivity and an excellent signal-to-noise ratio. Intermediate frequency circuits feature two selective mechanical filters. Product detector and BFO assure crisp CW and clear SSB. Built-in 100 kHz calibrator provides accurate frequency pre-selection (supplied less crystal). Power supply utilises a constant voltage zener stage. Rear panel accessory socket provides convenient connection for audio output, 12 volts DC, ground and receiver muting. Front panel earphone and rear panel tape output jacks. Operates from 220/240V AC 50/60 Hz or 12V DC.



SPECIFICATIONS

Controls: Function Switch (Power Off, AM, Stand-by, SSB-CW), BFO Variable LSB-USB, Volume, RF Gain, Band Selector (3.5, 7, 14, 21, 28, 50 MHz), Antenna trim, Tuning, Calibration (tuning), Calibration (on-off), Automatic Noise Limited, Battery Saver Pilot Light Switch (rear panel). **Sensitivity:** Better than $1\mu\text{v}$ on 80, 40, 20 metres; $5\mu\text{v}$ on 15, 10 metres and $2.5\mu\text{v}$ on 6 metres. **Selectivity:** -6dB at $\pm 2\text{ kHz}$, -60dB at $\pm 6\text{ kHz}$. **Intermediate Frequencies:** 1st IF 2.608 MHz, 2nd IF 455 kHz. **BFO Frequency:** 455 kHz $\pm 2.5\text{ kHz}$. **Image Rejection:** Better than -40dB . **Audio Output:** Impedance 8 and 500 ohms; Power 1 watt. **Antenna Input Impedance:** 50 ohms. **Power Requirements:** 220/240V 50/60 Hz AC, 12V DC (negative ground). **Power Consumption:** AC 8.5 watts, DC 6.8 watts. **Size:** 15" wide \times 9 $\frac{1}{2}$ " deep \times 8 $\frac{1}{4}$ " high.

£57.10.0 Carr. 10/-

Optional extra 100 Kc/s crystal 40/-

LAFAYETTE VHF COMMUNICATION BAND RECEIVER MODEL PF-60



★ 152-174 Mc/s

★ 4 IC'S Plus 13 Transistors ★ Crystal Control Plus Tuneable Reception ★ 230 VAC and 12 VDC Operation ★ Tape Recorder Output Jack.

An advanced FM receiver that is outstanding in performance and features. Fully tuneable or can be crystal-controlled. Superheterodyne circuit includes tuned RF and mixer stages. Four IF stages, each using an advanced space-age integrated circuit (IC). No larger than a tiny transistor, each IC is actually a complete circuit with 5 transistors and 2 resistors—you get the equivalent of 20 transistors in the IF stages alone! 100% solid state design offers top reliability too! 'Instant-on' transistor circuit permits immediate response to emergencies! Built-in universal power supply assures continuous monitoring under any conditions—the unit operates also from a 12-volt

d.c. battery supply for field use or as an emergency portable if a.c. power fails. Variable squelch control lets you silence the receiver during no-signal conditions to reduce monitoring fatigue. Also equipped with illuminated slide-rule dial, plus hand on-off volume control. Has a handsomely styled vinyl-clad steel cabinet in a simulated walnut wood-grain finish, and equipped with built-in 4" front-mounted speaker and external phone jack. **Controls:** Variable Squelch, On-Off Volume, Tuning and Selector (Tune-xtal). **Less Crystal.** **Size:** 13 $\frac{1}{4}$ " W \times 7 $\frac{1}{4}$ " D \times 6" H.

Price **£37.10.0.** carr. 10/-

TRIO SSB TRANSCEIVER SYSTEM



POWER SUPPLY/ SPEAKER PS.510

Utilises a silicon voltage rectifier to supply the requirements of the TS.510. Supply lines requiring 300V and less are taken from the centre of the capacitor stack and voltage dropping resistors are used in series to form the 200V and 150V supplies. A half wave silicon rectifier circuit is used to obtain block bias voltage of 120V. Two 12.6V secondary windings supply heater voltages for the transceiver valves. The primary windings are connected for operation from 250V line sources. The power supply jack incorporates speaker line terminals, as well as the power transformer primary connections so that AC power switching is made from the transceiver. Incorporates specially designed 6 $\frac{1}{2}$ " communications speaker — frequency range 150—5,000 Hz. Size: 7 $\frac{1}{4}$ " x 8 $\frac{3}{8}$ " x 11 $\frac{1}{4}$ "

SSB TRANSCEIVER TS.510

Employs a high frequency crystal filter and covers all ham bands from 3.5–29.7 MHz. Both the receiver and transmitter sections employ the dual conversion configuration. The receiver is a dual conversion super-heterodyne in which the RF and local oscillator are independently tuned, providing high stability and sensitivity. New extremely stable VFO, built around 2 FET's and 13 transistors, insures stable QSO's. Precision double-gear tuning mechanism and linear tuning capacitor provide 1 kHz direct reading on all bands. A high frequency filter especially developed for the 510 series is employed. Its excellent Q factor makes sharp cut-off for both receiver and transmission. Equipped with a selectivity switch for both SSB and CW modes. The AGC circuit includes an amplifier to ensure that even the largest input signal can be received without distortion. The AGC circuit also features signal strength meter indication independent of RF gain adjustment. Side-tone oscillator eliminates the necessity of adding an RF oscillator for accurate CW reception. RIT circuit permits fine adjustment during reception and tuner reading correction without changing the main dial setting. AGC time constant can be switched between Slow and Fast. Circuits include built-in VOX, PTT amplifier—AGC, RIT, CAL circuits, bandwidth switching, multimeter which indicates Ip, RF, HV, ALC and signal strength. AGC switch, terminals for external VFO, ALC and receiver input and output terminals.

Specifications: Receive and Transmit Frequencies: 3.5 to 29.7 MHz with a 7-band tuning system in both modes. Type of Emission: SSB (A3J), CW (A1). Rated input 100W at 3.5–21 MHz, 120W at 28 MHz. Antenna Input: 50–70 ohms. Carrier Suppression: Less than –40 dB. Sideband Suppression: Less than 40 dB. Transmit Audio Frequency Response: 300–2,700 Hz (–6 dB). Radiation of Unwanted Components: Less than –50 dB. Receive Sensitivity: 0.5 μ V, S/N ratio of 10 dB at 3.5–21 MHz. Selectivity: SSB more than \pm 1.2 kHz (at –6 dB), less than \pm 2.4 kHz (at 60 dB); CW more than \pm 250 Hz (at 6 dB); less than \pm 750 Hz (at –60 dB). AF Output: More than 1 watt (with 10% distortion). Uses 14 valves, 2 FET's, 13 transistors and 29 diodes. Dimensions: 13" x 7" x 13 $\frac{3}{8}$ " CW filter optional extra.

PRICE £180.00 COMPLETE

VARIABLE FREQUENCY OSCILLATOR VFO.50

This VFO has been designed to match the TS.510 transceiver and PS.510 power supply. Superb stability is assured through the use of two FET's plus two other transistors in the VFO unit to assure drift-free QSOs for hours on end. The VFO-50 is equipped with the same precision double gear dial as the TS.510 which tunes a 25 kHz range with one complete revolution. Crystal controlled operation permits spot channel communication. Built-in RIT circuit permits slight shifting of receiver/transmit frequencies when desired. Power is received from the TS.510. A relay connection socket is provided for controlling a preselector or linear amplifier.

Specifications: Frequency Range: Band 80m 3.5–4.1 MHz; 40m 7.0–7.6 MHz; 20m 14.0–14.6 MHz; 15m 21.0–21.6 MHz; 10m A 28.0–28.6 MHz; 10m B 28.5–29.1 MHz; 10m C 29.1–29.7 MHz. Oscillation Frequency: 4.9–5.5 MHz. Output Voltage: 10V. Power AC: 12.6V 100 mA; DC 150V 30 mA. Size: 7 $\frac{1}{4}$ "W x 8 $\frac{3}{8}$ "H x 7 $\frac{1}{8}$ "D. **PRICE £32.00**

TRIO JR.310 AMATEUR BAND RECEIVER

This Receiver is of ultra-modern design employing an exceedingly stable VFO, 2 FET's and 2 Transistors. A precise double-gear dial mechanism permits accurate frequency readings to within 1 kHz. The circuit employs a double superhet with a crystal controlled first local oscillator and a VFO which serves as the second oscillator. Independent tuning of the first IF is provided and a mechanical filter in the second IF produces excellent selectivity. Crystal controlled BFO for SSB reception. S Meter, ANL and a calibrator circuit switch are provided. RIT circuit included and space is provided for the addition of a marker oscillator calibrator and/or voltage regulator circuits. Use of an additional crystal permits provision of an extra receiving band.

Receiving Frequency Ranges:

3.5 MHz band 3.5– 4.1 MHz	Standard wave WWV 15.0 MHz
7.0 MHz band 7.0– 7.6 MHz	
14.0 MHz band 14.0–14.6 MHz	
21.0 MHz band 21.0–21.6 MHz	(EXT band. Any band between 3.5 and 30 MHz covering a range of 600 kHz. No crystal provided.)
28.0 MHz band 28.0–28.6 MHz	
28.5 MHz band 28.5–29.2 MHz	
29.1 MHz band 29.1–29.7 MHz	

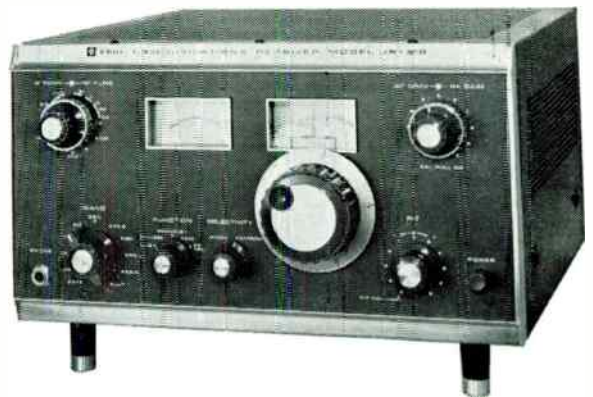
Sensitivity: Less than 1 μ V (S/N 10 dB)

Selectivity: More than 50 dB at \pm 6 kHz off tuning.

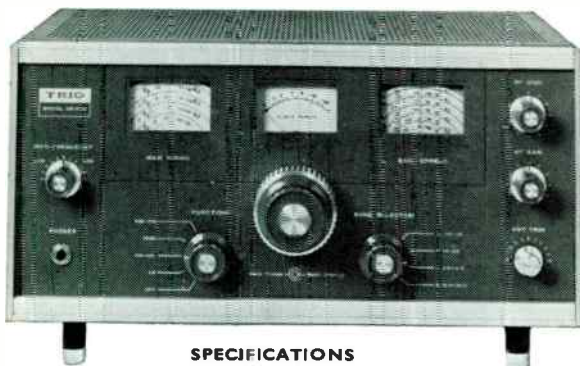
Detection: AM, diode detector

Output: SSB CW; diode ring demodulator. Undistorted maximum power output: 1W. **Power Supply:** AC 110–120V/220–240V, 50/60 Hz. 6 valves, 6 transistors (2 FET's) and 19 diodes. **Dimensions:** 13x7 $\frac{1}{8}$ x12 $\frac{1}{8}$ "

PRICE £77.10.00



TRIO MODEL 9R-59DE COMMUNICATIONS RECEIVER



SPECIFICATIONS

Frequency Ranges: Band A 550 - 1600 Kc., Band B 1.6 - 4.8 Mc., Band C 4.8 - 14.5 Mc., Band D 10.5 - 30 Mc. Bandspread: Calibrated Electrical Bandsread 80 and 40 metres, 5 Kc per division; 20 and 15 metres, 20 Kc per division; 10 metres, 50 Kc per division. Antenna Input: 50 - 400 ohms impedance. Audio Power Output: 1.5 Watts. Sensitivity: 2 μ V for 10 dB 5/N Ratio (at 10 Mc). Selectivity: \pm 5 Kc at -60 dB (\pm 1.3 Kc at -6dB). When use the Mechanical Filter. BFO Frequency: 455 Kc \pm 2.5 Kc. Speaker Output: 4 or 8 ohms. Headphone Output: Low Impedance. Power Consumption: 45 VA at 115/230 V Volts A.C. 50/60 CPS. Tube Complement: V1 - 6BA6 RF Amplifier, V2 - 6BE6 Mixer, V3 - 6AQ8 HF Oscillator, V4 - 6BA6 1st IF Amplifier, V5 - 6BA6 2nd IF Amplifier, V6 - 6BE6 Product Detector, V7a - 6AQ8 Beat Frequency Oscillator, V7b - 6AQ8 1st AF Amplifier, V8 - 6AQ5 Audio Output, IN60 AF Detector, IN60, 5W-055 AVC, 5W-055 ANL, 5W-055 \times 2 Rectifier. Dimension: 7" Height, 15" Width, 10" Depth. Weight: 19 lbs.

£40 0 0 Carr. 10/-

Main tuning and Band Spread readings are easily made on these easy-to-read separate dials. The anti-backlash mechanism is smooth and sure. It provides close calibration accuracy and makes tuning a real pleasure.

The receiver provides continuous coverage from 550 KC to 30 MC Band spread tuning, with direct reading dial, is available on amateur bands.

Superb selectivity, heretofore unattainable with ordinary IF Transformers, is achieved through the use of a mechanical filter. One RF, and two audio stages of amplification ensure high sensitivity and selectivity.

Unusually stable operation is obtained through special design and shielding.

Clear SSB reception is achieved through the use of a Product Detector.

A large easy-to-read S meter provides accurate S readings at all times, including during CW and SSB reception.

Pre-mounted and pre-aligned printed board circuits are utilized in the front end. This permits successful kit-form assembly even by beginners.

The ANL circuit (Automatic Noise Limiter) effectively limits interference from pulse type noise.

The receiver is designed to form a neat "Ham Station" when used in conjunction with Trio's TX-88D, SM-5D or SP-5D. It is equipped with a stand-by switch, enabling it to be used with any other transmitter, or it can be used alone for listening purposes.

A phone jack is provided so that the receiver may be operated laet at night without disturbing others.

An antenna trimmer ensures optimum sensitivity on all bands. Bandsread on the 3.5 MC band covers the 500 KC between 3.5 and 4.0 MC, enabling the use of this receiver in conjunction with a separate converter.

TRIO MODEL JR-500 SE COMMUNICATION RECEIVER

This receiver covers all the amateur bands between 3.5 and 29.7 MHz. It will also receive the 10 MHz frequency standard signal. The dial features an anti-backlash double gear constructions. It is direct reading down to 1 kHz. Precise tuning of all signals including SSB is assured by the large, geared down dial speed ratio of 28:1.

Superior stability performance is obtained by the use of a crystal controlled first local oscillator, and also a VFO type 2nd oscillator. Frequency drift is practically nil due to the use of a solid state VFO circuitry.

Superior selectivity performance is obtained by the use of a mechanical filter in the IF circuitry.

The receiver incorporates a built-in product detector which assures good reception of SSB and CW.

The BFO circuit utilizes a crystal controlled oscillator for superior performance.

The VFO circuit is equipped with convenient output terminals so that it can also be used as a VFO for the transmitter.

Besides the 8 ohm impedance speaker terminals at the audio output, the receiver has a 500 ohm impedance phone jack. 500 ohm impedance output terminals are also available for recording purposes, and as an output source for RTTY connections.

The receiver incorporates AVC, ANL, and S-meter circuits.

The receiver is equipped with an OFF-ON switch, which can be used when it is desired to add a calibration circuit.

Coaxial cable connector receptacle may be easily installed if desired.

The receiver is equipped with remote control terminals which facilitate connections to the transmitter.

£65.0.0. Post Free



SPECIFICATIONS

Frequency Ranges: 3.5-4.0; 7.0-7.3; 14.0-14.35; 21.0-21.45; 28.0-28.5; 28.5-29.1; 29.1-29.7 MHz. Reception: AM, SSB, CW. Selectivity: \pm 1.5 kHz at -6 dB; \pm 6 kHz at -60 dB. Sensitivity: 1.5 mV for 10 dB 5/N Ratio (at 14 MHz). Image Range and IF Rejection: More than 40 dB at 14 MHz. Maximum Power Output: 1 watt. Tubes and Transistors Used: 7 Vacuum tubes, 2 transistors, 5 diodes. Power Consumption: 65 watts. Dimensions: 13" Wide \times 7" High \times 10" Deep. Special Circuits: ANL, Crystal BFO, S-Meter, AVC. Operation: 115/230V A.C.

TRIO HS4 HEADPHONES

Rugged construction plus comfort make these a must for the Ham. Dynamic headset. Input impedance 8 ohms, matching 4-16 ohms. Max. power 3 watts. Frequency range 300-3,000 Hz.

Price £5.19.6

TRIO SP-5D

Communications speaker unit—matching TRIO 9R-59DE and JR-500 SE receivers in both style and size. Contains 5" \times 3" elliptical 8 ohms speaker specially designed to give extremely crisp reproduction of voice frequencies. Dark grey metal cabinet—size 7" \times 3 $\frac{1}{2}$ " \times 5 $\frac{1}{2}$ ".

Price 87/6



PACKAGE DEAL!

JR500SE with HS4 Headphones and SP5D Speaker. £69.10.0



CODAR AMATEUR EQUIPMENT



CODAR CR 45 ALL BAND RECEIVER

The **CODAR CR 45** All Band receiver is an entirely new model in the famous CODAR range and is the finest ALL BAND receiver at the price. The highly sensitive CR 45 circuit brings World-Wide reception to your fingertips, whilst the construction is extremely simple with the comprehensive instruction manual. No technical knowledge is required to build this fine receiver and complete success, even by 'first time beginners' is assured.

The CR 45 features the widest frequency range of any receiver available at the price and will provide consistent reception from all parts of the world. All components are top grade quality and conservatively rated to give high reliability with trouble free performance, a noted feature of all CODAR Equipment.

- ★ COVERS 150 KC/S - 30 MC/S.
 - ★ SEPARATE ELECTRICAL BANDSPREAD
 - ★ LOW LOSS POLYSTYRENE PLUG-IN COILS
 - ★ 3 BALL BEARING VERNIER DRIVES
 - ★ POWER OUTPUT 3½ WATTS
- Coil ranges:** (1) 150-600 kc/s. (2) 600kc/s-1.8 mc/s. (3) 1.7-5.0 mc/s. (4) 4-11.5 mc/s (5) 10.5-30 mc/s.

PRICE LIST: CR 45K Complete kit with 3 coils range 3, 4, 5 £10.10.0 post 7/6 (£10.50 Carr. 37½p)
CR 45RB As above but ready built £13.10.6 post 7/6 (£13.52½ Carr. 37½p)

EXTRAS AVAILABLE IF REQUIRED

Headphones high imp. 4000 ohms	19/- (95p)	Coil range 1	6/3 (31½p)
Speaker 5" 3 ohms	19/6 (97½p)	Coil range 2	6/3 (31½p)
Metal Speaker Cabinet	45/- (£2.25)	Spare coil pack	8/6 (42½p)



CODAR CR 70A COMMUNICATION RECEIVER

The **CODAR CR 70A** Communication receiver sets a new high standard for performance and finish unequalled at the price, and is a worthy addition to the outstanding range of CODAR quality equipment.

Its superb styling is matched by its brilliant performance, and the design and construction with quality selected materials ensures reliable and consistent reception from all parts of the world.

Five valve (inc. two twin triodes) giving 7 valve line-up: ECH81 EF183, 2×ECC81, EZ80.

Controls: AF. gain / IF. gain / Function switch / Bandswitch / Aerial trimmer / Tuning. 2/3 ohm output for speaker or phone jack for private listening. HT/LT power take off socket for PR.30 preselector or other accessories.

Finish: Front panel white background with black detail, knobs black with chrome insets. Cabinet 13"×5½"×7½" for a.c. 200/250 volts.

- ★ COVERS 560 KC/S - 30 MC/S IN 4 RANGES
- ★ SLIDE RULE DIAL WITH LOGGING SCALE
- ★ 2 SPEED VERNIER TUNING CONTROL
- ★ SEPARATE B.F.O. FOR C.W. AND S.S.B
- ★ CALIBRATED S METER

PRICE LIST

CR 70A receiver complete with instruction manual ready built.
£22.10.0 carr. 7/6 (£22.50 carr. 37½p)

ACCESSORIES

Matching speaker cabinet	45/- (£2.25)
5" speaker	19/6 (97½p)
High imp. headphones	19/- (95p)

SEPARATE LEAFLETS ARE AVAILABLE ON ALL CODAR PRODUCTS

CODAR AMATEUR EQUIPMENT



CODAR T28 2 BAND RECEIVER

The **CODAR T28** 2 Band receiver employs 9 Transistors plus one diode. The Mixer, I.F. and A.F. sections are printed circuit modules giving reliability and high performance.

The R.F. section is separately tuned with the PEAK control to maintain maximum performance over a wide range of aerial types and impedances.

Backlash free precision slow motion drive, clear vision cursor and fully bandspread scales covering 1.8–2.0 mc/s and 3.5–4.0 mc/s.

Audio output is up to 1 watt for external 2–3 ohm speaker.

Designed for use on 12 volt battery supply, the T28 can be safely used for mobile work where the battery voltage may reach 14/15 volts. It will function down to 9/10 volts with lower gain and output.

The case is completely isolated to allow installation in vehicles having either positive or negative earth electrical systems.

Compact size 8" x 4" x 3½". Cabinet finished in Silver grey hammer.

Complete with plugs, instructions and technical data.

£16.10.0 Carr. 5/- (£16.50 Carr. 25p)

- ★ 9 TRANSISTORS
- ★ 2 BAND COVERAGE
160/80 METRES
- ★ FULLY BANDSPREAD
- ★ SEPARATE R.F. PEAK
CONTROL
- ★ B.F.O. SWITCH
- ★ 1 WATT OUTPUT
- ★ IDEAL FOR HOME,
MOBILE AND PORTABLE USE



CODAR P.R.30 R.F. PRESELECTOR

The **CODAR P.R.30** R.F. Preselector will considerably improve the performance of any superhet receiver. It employs E.F.183 Frame Grid tuned R.F. Amplifier and provides up to 20 dB gain plus substantial image rejection, improved signal/noise ratio and selectivity.

Outstanding features include air-spaced, low loss CODAR-QOIL INDUCTOR input, vernier tuning, gain control, rear selector switch for either dipole or single wire antenna. Co-ax output socket. Smart styling in Grey cabinet 8½" x 5" x 4" with silver/black panel. Complete, ready for use, with all cables, plugs, instructions.

Model P.R.30 for external power supplies 180–250 volts 12 mA H.T., 6.3 volts 0.3 Amp L.T. (obtainable from receiver) £6.10.0 Carr. 5/- (£6.50 Carr. 25p)

Model P.R.30X self powered version for 200–250 volts a.c. This model has accessory socket to provide up to 25 mA at 200 volts H.T. and 6.3 volts 1 Amp. L.T. for other accessories. £8.10.0 Carr. 5/- (£8.50 Carr. 25p)

- ★ FREQUENCY RANGE
1.5–30 MC/S.
- ★ BAND 1. 30–11.5 MC.
- ★ BAND 2. 11.5–4.2 MC.
- ★ BAND 3. 4.2–1.5 MC.



CODAR R.Q.10 Q. MULTIPLIER/FILTER

The new **CODAR RQ.10** Q Multiplier is a valve type electronic filter that can be used with any superhet receiver employing an I.F. between 450–470 kc/s.

It provides a considerable increase in selectivity for either peaking or rejecting a signal on AM, CW or SSB. Both PEAK and NULL functions are tunable with the vernier control over the receiver I.F. passband.

The PEAK function will produce either a very narrow I.F. passband for AM or SSB reception, or a sharp peak for CW reception. The PEAK control allows for complete adjustment of I.F. Bandwidth or amplitude of peak up to the maximum position where feedback occurs to provide B.F.O. function for the reception of SSB and CW signals. For receivers without a product detector, improved resolution of SSB signals can be obtained as the amplitude of BFO injection is higher than the usual type of BFO and the vernier tuning control assists in obtaining the correct signal frequency.

The NULL function provides a deep rejection notch for eliminating an interfering heterodyne, and is a steep sided slot without the combination of slot and peak as with the conventional type of crystal filter.

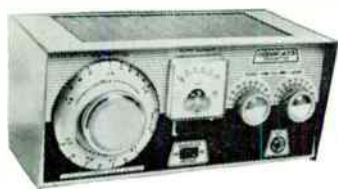
Special High Q Pot core enclosed inductors are used to obtain the highest possible efficiency and an effective Q of over 4,000 is achieved. The performance plus ease of control and negligible insertion loss makes the RQ 10 superior to the average crystal filter unit.

Smart styling in silver/grey cabinet 8½" x 5" x 4" with silver/black panel. (The RQ10 is a matching unit in size and finish to the P.R.30 Preselector).

Model R.Q.10X self powered version for 200–250 volts a.c. This model has accessory socket to provide up to 25 mA at 200 volts H.T. and 6.3 volts 1 Amp L.T. for other accessories. £8.17.6 Carr. 5/- (£8.87½ Carr. 25p)

Both models are complete with all cables, plugs, instructions.

CODAR AMATEUR EQUIPMENT



CODAR AT.5 12 WATT 2 BAND TRANSMITTER

New modified Vackar type V.F.O. circuit developed by CODAR and giving extreme stability. Temperature compensated Calibrated 1.8-2.0 mc/s and 3.5-3.8 mc/s (up to 4 mc/s for export). Ball bearing slow motion drive, completely free of backlash. Pi-network output using low loss CODAR-QOIL air spaced inductor.

P.A. Plate current meter, plus neon indicator.

Plate and screen modulation, high impedance input to speech amplifier for crystal microphone.

AM/CW function switch and panel key jack.

Plug changeover for 6 or 12 volt heater supply. This unique feature allows the heaters to be run from a 6 volt transformer supply for fixed use, or from 12 volt battery supply when installed in a car. No leads or links to change. Just insert the appropriate power supply plug from the mains or mobile power unit.

Front panel controls: V.F.O. Tune. Plate current meter. Neon indicator. Band switch. P.A. Tune/P.A. Load. Key jack.

Size: 8½" × 5" × 4".

Rear chassis: Microphone co-ax socket. Pre-set mic. gain control. Power supply socket. AM/CW function switch. Output co-ax socket.

Cabinet: Grey cabinet, black and satin silver front panel, grey with chrome trim control knobs.

Valve line-up: EF80/EF80/6BW6/12AX7/6BW6.

Power requirements: 250 volts H.T. 100 mA. 6.3 volts 1.8 Amps. L.T. (or 12 volts 0.9 Amps). 150 volts stabilised for V.F.O. supply.

CODAR AT.5 Transmitter, complete ready for use
£17.0.0 carr. 5/- (£17.00 carr. 25p)

REMOTE CONTROL SWITCHING UNIT TYPE 12 R/C



The 12 R/C Remote Control Switching Unit provides full control of the 12 M/S Unit with all STANDBY/NET/TRANSMIT and aerial changeover switching plus H.T. ON indicator and is designed to fit under the car instrument panel or glove compartment. Connections are made to a matching terminal block as fitted on the 12 M/S Unit and 3 co-axial sockets are provided for aerial connections to the receiver and transmitter. A spare L.T. feed terminal for optional receiver connection is also provided.

Dimensions: 5" × 2" × 1½".

Finish, Silver grey.

Complete with plugs, installation data

Price £2.10.0 carr. 3/-

(£2.50 carr. 15p)



TYPE 12 M/S 12 VOLT SOLID STATE, RELAY CONTROLLED POWER SUPPLY UNIT

Employing the latest developments in solid state techniques, this new Unit provides up to 280 volts 100 mA and 150 volts V.F.O. supply from a nominal 12 volt d.c. source.

A total of 7 Conservatively rated semi-conductors in conjunction with a special ferrite cored toroid transformer provides high efficiency with extreme reliability. In addition a unique feature is the built-in remote control facility using a precision micro-miniature heavy duty relay. This avoids L.T. voltage drop, heavy duty wiring and control switching, making for easier installation.

All external connections are made to a terminal block and plug-in power supply output socket. The Unit is supplied complete with a 4' power supply cable fitted plugs each end and 4' of 5 way control cable supplied as a twin pair and 3 way miniature cable.

Full H.T. can be short-circuited without damage to the Unit which automatically stops functioning until the fault is corrected. In addition a built-in fuse protects the L.T. side.

The Unit is supplied ready for use on positive earth (chassis) car electrical systems. Provisions for changeover to negative earth systems is incorporated with an internal wiring link.

Dimensions: 6½" × 3½" × 2½". Finish, Silver grey/black.

Complete with cables, installation data.

z Price £11.10.0 carr. 5/- (£11.50 carr. 25p)

MAINS POWER SUPPLY UNIT TYPE 250/S 200-250 VOLTS A.C.



Provides all the power supplies for the AT.5 Transmitter together with standby/net/transmit and aerial changeover switching.

The unit supplies 270 volts H.T. at 100 mA 6.3 volts L.T. 2.5 Amp and 150 volts stabilised H.T. A mains voltage selector panel is fitted internally for mains adjustment. An H.T. fuse provides protection. Smart styling in silver grey cabinet 8½" × 5½" × 4½" with silver/black anodised front panel. Weight 7½ lbs.

Price £9.0.0 carr. 6/6

(£9.00 carr. 32½p)

CODAR STATION CONTROL UNIT CC/40



The CODAR CC/40 Station Control Unit provides complete RECEIVE/TRANSMIT changeover facilities plus mains power supply control to the whole station. All mains power supply controlled by one switch (rating 750 watts at 250 volts AC). (2KW rating to special order at 7/6 extra.) A second switch provides the changeover facility via two precision relays with high purity solid silver contacts. Aerial changeover to coaxial sockets built in plus 4 SP/CO and 1 SP/ make contacts provide adequate switching for practically any type of TX/RX combination. In addition, a push button on a 6 ft. flexible lead comes into use automatically when the TRANSMIT/RECEIVE switch is in the RECEIVE position, giving fast "break in" facility and true finger tip armchair control.

Two indicators glow independently to show the TRANSMIT/RECEIVE function. For 200-250 volts A.C. Complete with plugs and installation data.

£6. 15. 0 (£6-75)



HEADPHONES

1. **2,000 ohm LIGHTWEIGHT HEADPHONE**
Modestly priced general purpose headphones with adjustable ear pieces on flexible head band. Approximately 3' lead. Total impedance: 2,000 ohms 16/6 (82½p)
2. **4,000 ohm LIGHTWEIGHT HEADPHONE**
Similar in specification and appearance to above, but with total impedance of 4,000 ohms. 17/6 (87½p)
3. **De-luxe 2,000 ohms with double headband and fitted with standard jack plug** .. 17/6 (87½p)

CODAR MINI-CLIPPER—ALL BAND RECEIVER



A miniature one tube radio specially produced to provide an introduction to the fascination of Short Wave listening at very low cost.

Top quality components and carefully planned design, the MINI-CLIPPER with its wide frequency coverage will receive Amateur and Broadcast transmissions from all parts of the world.

Low loss Polystyrene plug-in Coils and air spaced ball bearing capacitors are used in a highly sensitive regenerative circuit with IF3/IT4 tube detector. Provision is made for adding two transistor high gain audio stages and also Electrical Bandsread, which can be fitted at any time.

The Coils are factory matched and tested with following ranges:—

Range	1	2000-550 metres
"	2	550-170 "
"	3	175- 75 "
"	4	65-25 "
"	5	28- 10 "

No technical knowledge is required to build this fine little receiver, the comprehensive instruction manual and pictorial diagrams make assembly simplicity itself. Each part and every connection is clearly shown—no guesswork. The chassis is supplied pre-punched—no drilling—all parts fit perfectly into place. The metal front panel is finished in smart satin silver with printed scales and grey control knobs. Can be built in one evening—ready to switch on and bring the world to your fingertips.

Total building cost all parts, IF3/IT4 tube, chassis, front panel, one Coil Range 4, wire, solder, instruction manual £2.15.0 p/p 3/- (£2-75 p/p 15p)

ACCESSORIES

- Electrical Bandsread capacitor with control knob..... 10/- (50p)
All parts for 2 Transistor stages, including Transistors, mounting panel etc..... 16/- (80p)
Additional Coils, all range..... 6/3 each (31½p)
Cat No. HK4 High Sensitivity Headphones. 4000 ohms..... 19/- (95p)
Cat. No. L5504 Battery Pack. 69/1½ volts..... 16/- (80p)
Instruction Manual Only..... 2/- (10p)
Aerial Kit with Plans..... 12/6 (62½p)
"Guide to Broadcasting Stations" (Latest revised Edition) . . . 6/- (30p)
Any accessories post free when ordered with all Receiver Parts.

EX-MILITARY HEADSETS

1. **Modern Army Headset**
Extremely robust and serviceable. Earpieces moulded in rubber. Fitted with standard size jack plug. Low impedance. Brand new and boxed 17/6 (87½p)
2. **Headset and Microphone Assembly No. 10**
Moving coil headset with moulded rubber housing. Moving coil moulded bakelite microphone with Pressel switch. Brand new .. 15/- (75p)
Spare Cords for No. 10 Headset and Microphone Assembly 2/6 each (12½p)



HIGH TO LOW IMPEDANCE ADAPTOR FOR HEADPHONES

Fitted with standard jack socket input and jack plug output.

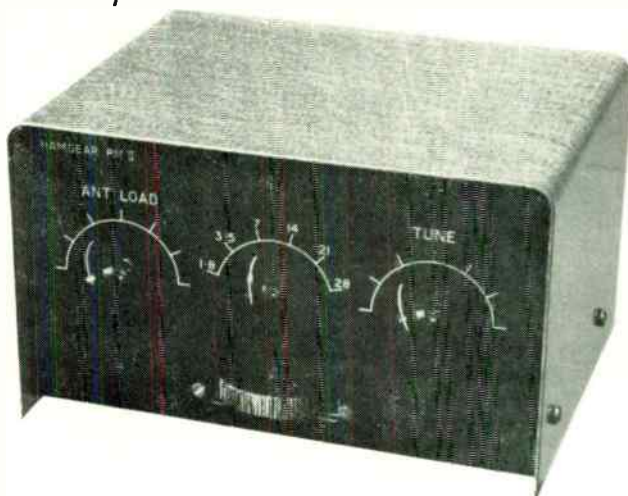
3/6 each (17½p)

THE HAMGEAR PM II PRESELECTOR/ANTENNA UNIT

Basically an EF80 RF amplifier switched and tuned from 1.6/32 mc/s. With a gain of 20/25 dB it will vastly improve any receiver. In one go the sensitivity is increased enormously, the aerial is tuned and the image rejection improved. Apart from being a high-gain amplifier, the PM II has a built-in aerial tuner of the P1 tank variety, thus enabling the best use to be made of the aerial, whether it be beam or piece of wire. There are no doubtful link coils to waste energy, no coil taps, no long leads hanging about and no unwieldy controls, as in the usual aerial tuner—just a highly efficient aerial tuner and RF amplifier in the one small case with only a bandswitch and three easy-to-operate controls—antenna tuning, loading and RF gain.

The advantages of a P1 coupler feeding directly into a high gain RF amplifier are not appreciated until one tries it out. Literally any type of antenna or length of wire can be coupled in and used with efficiency. This is ideal for anybody who wishes to experiment with various types of aerial—somebody who has a large garden perhaps, or on the other hand somebody who has only space for an indoor aerial.

This unit has been tried on a variety of aeriels and receivers ranging from the R109 to the BRT400 and in each case there was a substantial improvement. The output impedance is uncritical (such is the circuit used) and will work satisfactorily over a wide range of input impedances of various receivers. In any case the signal/noise ratio of the system will already be set and a little mismatch on the output can be tolerated. A point worth noting is the fact that the gain actually improves as the frequency gets higher. Just where receivers start to drop off, this unit brings the gain up. So we have a fairly even gain from 1.6/32 mc/s. Connections into the unit are via a coaxial socket and connections out via a coaxial to the main receiver, mains at 235/250 volts being taken in by a generous amount of 3-core cable. No alterations, electrical or physical are required on the main receiver, coaxial from the PM II just plugging straight into the aerial and earth sockets. Contained in a small case, size 7" x 5½" x 4½". Of modern design, it has a silver hammer case, black panel with white engraved numerals—no painted numerals that can wear off. Supplied powered only, it has a transformer/silicon rectifier combination.

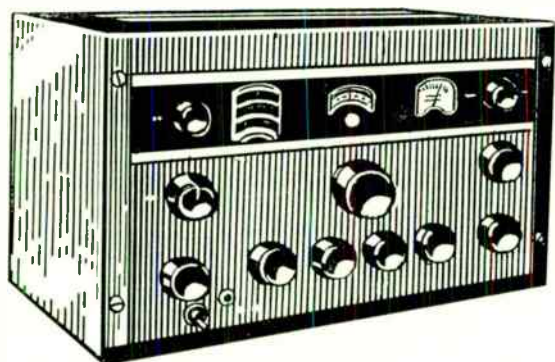


EX-MILITARY R.C.A. AR.88 RECEIVERS

Good stocks of this excellent Communication Receiver are usually available—interested customers are recommended to send for list of current offers. The two models available are the AR.88D. Coverage: 550 kc/s–32 mc/s. AR.88LF. Coverage: 75 kc/s–550 kc/s and 1.5 mc/s–30.5 mc/s.

STOP PRESS!

R.C.A. AR.88D Limited quantity of these receivers available Brand New and Boxed and complete with manuals £65 carr. 50/- (£2.50)



ADMIRALTY B.40 RECEIVERS

An opportunity to purchase an excellent receiver which cost the government over £600 each. Manufactured by Murphy Radio.

Special Features

★2 RF and 3 IF stages ★BANDPASS FILTER ★500 Kc/s CRYSTAL CALIBRATOR
★CRYSTAL B.F.O. ★LARGE ILLUMINATED DIAL ★NOISE LIMITER

Receiver uses 10 valves and gives continuous coverage of 650 Kc/s 30.5 Mc/s on 5 bands. Incorporates IF output and built in monitor speaker. Output also for phones. Operates on 115 or 230 volt A.C. RF and AF gain controls. Aerial matching for low or high impedance. Size 19½" x 13½" x 16".

These receivers are not new but are offered in good working order at £22.10.0 carr. 30/- (£22.50 carr. £1.50)

Also available the matching LF version B.41. This is identical in appearance but covers the frequency range of 15 Kc/s–700 Kc/s.

Price £17.10.0 carr. 30/- (£17.50 carr. £1.50)

COMMUNICATION RECEIVERS

LARGE STOCKS OF EX-MILITARY COMMUNICATION RECEIVERS ALWAYS AVAILABLE. Refer to our Advertisements for current offers or better still send us a letter stating your requirements.





SWR METER NEW PRODUCT MODEL SWR-3

Handy SWR meter for transmitter antenna alignment. Convenient field strength meter built-in. Suitable for mobile and amateur stations.

Specifications:

SWR: 1:1 to 1:3.
Accuracy: 5%.
Impedance: 52 ohms.
Indicator: 100 μ A d.c. Full Scale.
Antenna: 5 section collapsible.
Dimensions: 145 x 50 x 60 mm.
Weight: 500 g.

85/-

FIELD STRENGTH METER NEW PRODUCT MODEL FS-1

Very simple to use field strength meter for transmitter antenna alignment.

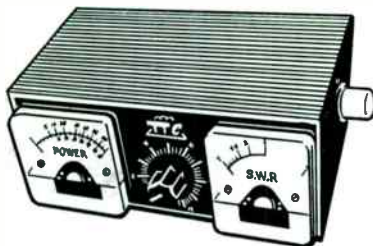
Specifications:

Frequency Range: 1—250 mc/s.
Antenna: 5 sections—extended length.
Meter: 100 μ A d.c. Full Scale.
Dimensions: 55 x 80 x 40 mm.
Weight: 500 g.



**BARGAIN
OFFER
45/-**

SWR & POWER METER MODEL C3005



Versatile, highly efficient new TTC meter. Reads output and reflected power simultaneously. Easy-to-read heavy black numbers scaled for quick, exact readings. Can be used for reference power meter. Dual 100-microamp meter movements, low insertion loss. May be left in line, up to 2,000 watts. Good through 175 MHz. Grey enamelled metal case. Size: 4 $\frac{3}{4}$ " x 2 $\frac{1}{4}$ " — 2 $\frac{1}{2}$ ". Complete with full instructions. **£6.6.0**

MINIATURE "S" METER

- ★ JEWELLED BEARINGS
- ★ ACCURACY 2% OF FULL SCALE
- ★ HIGH QUALITY D'ARSONVAL MOVEMENT
- ★ CLEAR PLASTIC FRONT

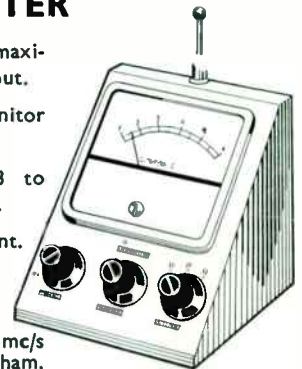


Durable wrap-around plastic front panel provides wide-angle readability. Zero adjustment screw on front panel; jewelled bearing movement. Calibrated in "S" units from 0-9 with the scale terminating in +10 and +30 calibrations. Additional full scale calibrations of 0-5 and 0-10 in linear scale divisions. Silvered dials; black numerals and pointers. 1 $\frac{3}{8}$ " dial face; 1 $\frac{1}{2}$ " overall behind panel. Supplied with mounting screws. **29/6**

TRANSISTORISED FIELD STRENGTH METER

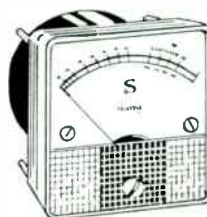
- ★ Permits easy Tune-up for maximum Transmitter Output.
- ★ Earphone Jack to Monitor Audio.
- ★ Tuned Input from 2-53 to 57 mc/s in three Bands.
- ★ 200 μ A Meter Movement.

£4.19.6. P/P 3/-



Covers 2-530 mc/s to 57-000 mc/s in 3 bands. Ideal for use with ham, Citizens Band or other transmitters within this frequency range. Enables user to tune his transmitter and antenna for maximum RF output. 200 μ A meter is calibrated from 0 to 10. Earphone jack provided. Front panel controls: gain on-off switch, tuning, and band selector switch. Battery powered—can be operated anywhere. With telescoping antenna and battery.

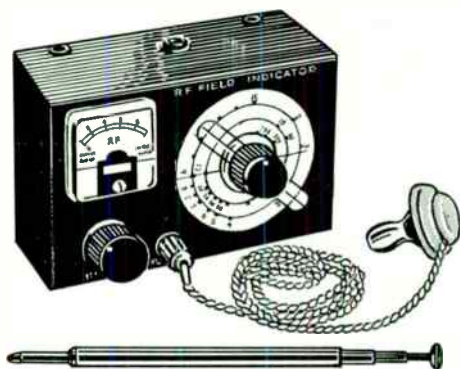
FULL-SIZE ILLUMINATED "S" METER



- ★ 2 JEWEL MOVEMENT
- ★ CLEAR PLASTIC FRONT
- ★ CALIBRATED TO S9+40db

A quality "S" meter (basic 1 ma, 2 jewel movement) designed to replace many "S" meters used in communications receivers. Clear plastic front measures 2 $\frac{3}{8}$ " square and meter fits standard 2 $\frac{1}{2}$ " round hole. Perfect for the experimenter and amateur. Complete with mounting screws, instructions for installation and use. For 6 volt operation. Zero adjustment control on front panel. **39/6**

FIELD STRENGTH METER MODEL FL.20HA



This sensitive field strength meter requires no battery. RF power is rectified by crystal diode and current is indicated on meter. Select the appropriate range and adjust frequency selector for a maximum reading on meter. Sensitivity is controlled by decreasing the antenna length. Supplied with 9" 5-section antenna, phone jack and crystal earphone. Base is magnetic for attaching to any steel surface. Black enamelled metal case. $3\frac{3}{8}'' \times 2\frac{1}{2}'' \times 2\frac{1}{4}''$ Spec.: Frequency Range 5 channel Tuned Circuit Type A ch.: 1-3 Mc/s; B ch.: 3-9 Mc/s; C ch.: 9-27 Mc/s; D ch.: 27-100 Mc/s; E ch.: 100-250 Mc/s; Meter 200 μ A d.c., full scale complete with instructions.

£3.19.6 (£3.97½)

GRID DIP METER Model TE.15 Transistorized

£12.10.0. (£12.50)

- Operates as a Grid Dip, Oscillator, Absorption Wave-meter and Oscillating Detector

- Versatile Portable Applications

- SPECIFICATION

Frequency Range: 440 kc/s-280 mc/s in 6 coils:
A coil 0.44-1.3 mc/s; B coil 1.3-4.3 mc/s; C coil 4-14 mc/s; D coil 14-40 mc/s; E coil 40-140 mc/s; F coil 120-280 mc/s

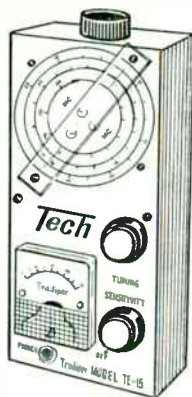
Transistor: 3 TRs and 1 diode

Meter: 500 μ A Fs

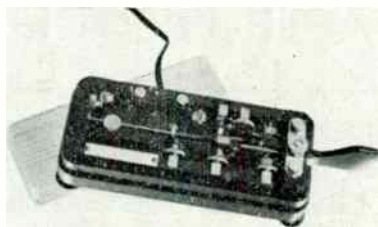
Battery: 9 volts (BL-006P)

Dimensions: 180 x 80 x 40 mm

Weight: 730 g



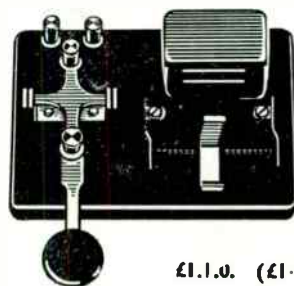
SEMI-AUTOMATIC BUG KEYS



Precision operated semi-automatic BUG Key. 7 adjustments for speed and comfort. Key is completely adjustable for tension, swing, speed, etc. Precision tooled anti-rust, nickel-plated brass and stainless steel operating parts. Variable speed capable of 5 w.p.m. to approximately 60 w.p.m. Complete with cord, tension wedges and transparent dust cover. £4.10.0 (£4.50)

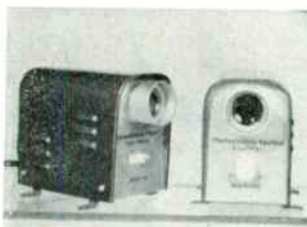
CODE PRACTICE SET TTC F-1003

A simple and highly effective unit for practising morse code, comprising moulded black plastic base with adjustable key, holder for one U-2 type battery, buzzer for connection to another set. Base size $5\frac{1}{2}'' \times 3\frac{3}{4}''$.



£1.1.0. (£1.05)

EAGLE PHOTO ELECTRIC RELAY SYSTEM PEA. 400



EAGLE's PEA. 400, an inexpensive warning or counting system featuring the very latest technical advantages of photo electric circuitry. Consisting of a rugged exciter and relay unit which can be

connected to signal persons entering a room or building, counting people or merchandise, or function as an effective alarm system to warn of intruders.

Relay unit has a convenient variable sensitivity control and switch for intermittent alarm operation. Exciter unit has removable infra red filter. Includes a.c. outlet socket to operate bells, or counters, etc.

Both units housed in robust metal cases, complete with connecting cables and installation and operating instructions. 240 volt a.c. operation. £10.2.6 (£10.12½)

JOYSTICK REGD. VARIABLE FREQUENCY ANTENNA SYSTEM

(U.K. AND FOREIGN PATENTS)



JOYSTICK VFA ASSEMBLED



TYPE SM

JOYSTICK VFA
COLLAPSED



TYPE LO-Z

The JOYSTICK VFA comes to you in a 3-ft. carton containing three sections. Assembled in seconds, with 8-ft. feeder attached and you are ready, together with your selected JOYMATCH ATU (WITHOUT WHICH IT WILL NOT WORK), to go on the air on 160, 80, 40, 20, 15 and 10 metres; or, receiving only, anywhere on the Short Wave and Medium Wave bands, and from almost any location indoors or outside.

With additional JOYSTICK Special Feeder Wire, a Stack Lashing, Wall Bracket or JOYMAST, the added advantage of extra height will put your signal well among the "big boys"!

The difference between SUCCESS and FAILURE with the JOYSTICK VFA is dependent upon how successful WE are in persuading YOU to read and carefully follow our SPECIAL INSTRUCTIONS! Conventional procedures just DO NOT APPLY. A refreshing absence of harmonics and 5 & 9 plus signals are their own reward for carefully applied instructions!! We have taken a lot of trouble to perfect this patented device to eliminate the damaging effect of harmonics on the radio amateur and his neighbours!!! For the SWL this special quality results in improved selectivity, sensitivity and signal-to-noise ratio!!!

The JOYSTICK VFA radiating elements are constructed from the finest materials and are very light in weight. The tubular elements of the DE LUXE model are COPPER, those of the STANDARD and JUNIOR models are ALUMINIUM.

BECAUSE the radiation pattern is SPHERICAL, the JOYSTICK VFA can be positioned in any physical plane, but it is usually more convenient to mount vertically, using a Stack Lashing, Wall Bracket, with tubular insulators or JOYMAST for support. Used indoors there is no problem. Lean against wall for example, or suspend horizontally in attic space for added height.

STANDARD JOYSTICK VFA weighs 11b. 14oz. (0.85kg), 7' 6" (2.3 m) assembled	£5.10.0
DE-LUXE JOYSTICK VFA weighs 21b 4oz. (1.02kg) 7' 6" (2.3 m) assembled	£6.11.0
JUNIOR JOYSTICK VFA weighs 21b 2oz. (.91kg) 7' 6" (2.3 m) assembled	£4.4.0

JOYMATCH REGD. A.T.U.

RESONATING UNITS

Provide the essential perfect match to the JOYSTICK VFA, are compact, simple to operate and the same transmitter-type tuner does double duty on receive. The compact popular range are housed in "shatter-proof" black high impact polystyrene cases, size 6" x 4½" x 2q" (15½ x 11 x 7 cm).

JOYMATCH TUNER FOR RECEIVING ONLY

USING ANY NORMAL RECEIVER and almost any aerial, but more especially the JOYSTICK VFA, the very popular and efficient type SM JOYMATCH ATU will peak your signal anywhere on the Short Wave Amateur and Broadcast bands, the Matine and Medium Wave bands. Circuit design preserves high "Q" throughout this extensive coverage.

PRICE £5.10.0 (£5.52½)

FOR TRANSMITTING (½ kW P.E.P. S.S.B.)

The new LO-Z one-knob JOYMATCH tuner is the result of extensive research, and "on the air" all-band operation using maximum permitted power.

The LO-Z JOYMATCH ATU offers the radio amateur complete high "Q" harmonic-free operation on all the Amateur bands, 80 through 100 metres. PLUS 100-watt power capability on the 160-metre band. Ease of operation is an essential feature of this very compact, attractive and highly efficient all-purpose tuner. As its name implies, the LO-Z JOYMATCH is essentially a part of the very effective JOYSTICK VFA system and should not be used with conventional aerials.

PRICE £7.19.6 (£7.97½)

NOT ILLUSTRATED: The newly developed type TR JOYMATCH designed especially for use with transistorised radios where insufficient "front end isolation" demands something special. Effective increase of all signals in the Medium Wave and Short Wave bands, plus increased sensitivity on the FM bands. For use with a simple length of wire or more especially with the highly sensitive and selective JOYSTICK VFA.

PRICE £3.6.0 (£3.30)

ARMSTRONG HI-FI EQUIPMENT



521 STEREO AMPLIFIER

New high-fidelity amplifier 25 watts per channel (r.m.s.), Frequency response: 20–20,000 Hz...–1dB. Speaker outputs for 4–16 lms. Output also for tape recording and stereo phones. Inputs 400 mV, 60 mV, 3.5 mV. Wide range of bass, treble, tone controls and balance control together with three switched filters and loudness control.

Size: 11½" × 4⅝" × 10¾". £45.19.6 (£45.97½) Carr. 10/- (50p)



523 AM/FM TUNER 524 FM TUNER

New high-fidelity radio tuners which are identical to the 521 in size. Model 523 covers the FM band 86–109 MHz and Am band 510–300 kHz L.W.

Model 524 covers the FM band only.

Both have provision for simple plug-in stereo decoder. Self-powered 105–125, 200–250 volts a.c. operation.

MODEL 523 £45.10.0 (£45.50) Carr. 10/- (50p)

MODEL 524 £35.17.6 (£35.87½) Carr. 10/- (50p)

Stereo Decoder for above £7.19.6 (£7.97½)



525 FM STEREO TUNER-AMPLIFIER

526 AM-FM STEREO TUNER-AMPLIFIER

Compact fully integrated tuner amplifiers which are combinations of the 521 amplifier and 523 and 524 tuners and have identical specifications. The 525 is literally a 521 amplifier and 524 tuner combined in one unit and the 526 is a combination of the 521 amplifier and 523 tuner.

Size: 17" × 4⅝" × 10¾".

MODEL 525 £77.10.0 (£77.50) Carr. 10/- (50p)

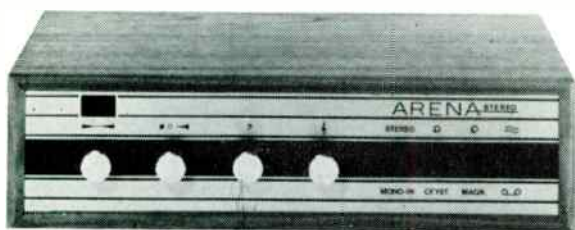
MODEL 526 £87.10.0 (£87.50) Carr. 10/- (50p)

M8 Stereo Decoder £7.19.6 (£7.97½) extra

The Armstrong 500 series are housed in attractive Teak wooden cases and all models are suitable for standing on bookshelf or mounting in the equipment cabinet of your choice.

All inputs and controls are indicated by international symbols. Full instructions supplied with each unit.

ARENA HI-FI EQUIPMENT



AMPLIFIERS ARENA F210

2 x 10 watts stereo/mono amplifier.
Magnetic and ceramic inputs.

£28.0.0 (£28.00) Carr. 10/- (50p)

TUNERS ARENA F211

Matching unit for F210 amplifier.

£38.0.0 (£38.00) Carr. 10/- (50p)

NEW ARENA F212 AMPLIFIER £29.10.0 (£29.50) Carr. 10/- (50p)

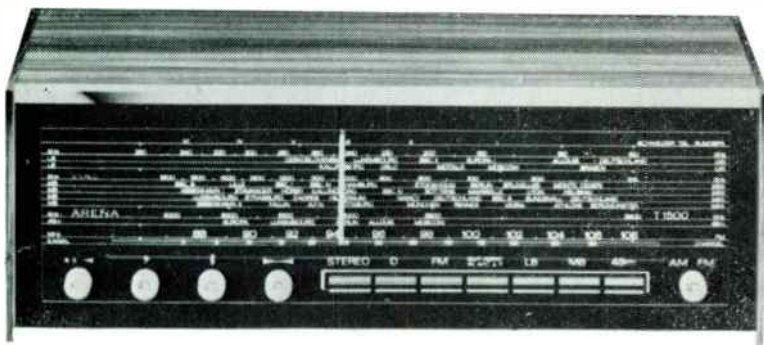
TUNER AMPLIFIERS

ARENA T1500F Ceramic Input with Multiplex	£63. 0.0 (£63.00) Carr. 10/- (50p)
ARENA T1500F Magnetic Input with Multiplex	£65. 0.0 (£65.00) Carr. 10/- (50p)
ARENA T2400 with Multiplex	£72.10.0 (£72.50) Carr. 10/- (50p)
ARENA T2500F with Multiplex	£87.10.0 (£87.50) Carr. 10/- (50p)
ARENA T2600 with Multiplex	£92.10.0 (£92.50) Carr. 10/- (50p)
ARENA T2700 with Multiplex	£85. 0.0 (£85.00) Carr. 10/- (50p)
ARENA T9000	£258. 0.0 (£258.00) Carr. 15/- (75p)

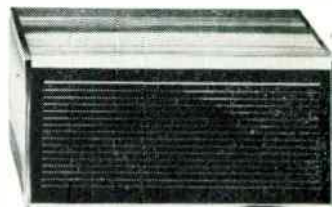
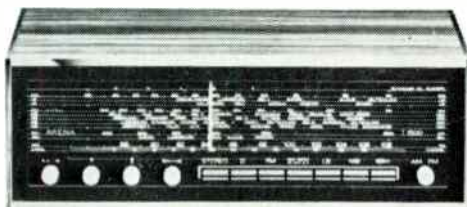
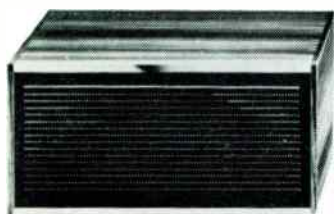


SPEAKER SYSTEMS

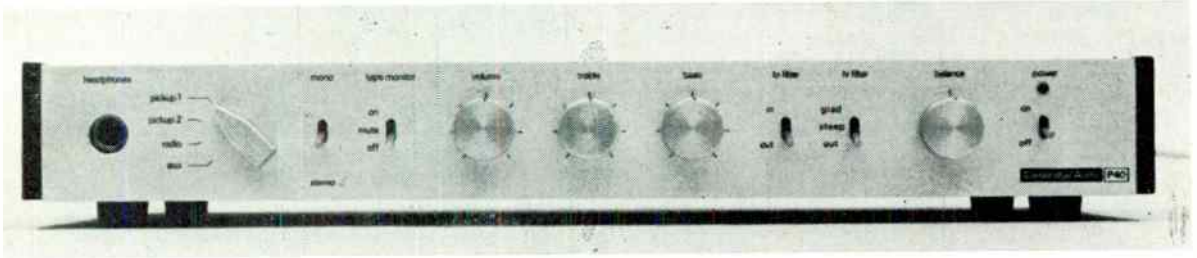
HT.19	£6.19.6 (£6.97½)
HT.21	£9. 4.0 (£9.20)
HT.14	£13. 7.6 (£13.37½)
HT.17	£13. 7.6 (£13.37½)
HT. 7	£16.16.0 (£16.80)
HT.10	£18.10.0 (£18.50)
HT.20	£26.10.0 (£26.50)
HT.18	£30.19.6 (£30.97½)
HT.26	£65. 0.0 (£65.00)
HT.25	£130. 0.0 (£130.00)
HT.27	£13.19.6 (£13.97½)
HT.28	£12.19.6 (£13.97½)



ALL MODELS AVAILABLE IN TEAK OR ROSEWOOD



CAMBRIDGE AUDIO P40 AMPLIFIER



CONSIDERED BY MANY TO BE ONE OF THE BEST AMPLIFIERS ON THE MARKET

Specification

Power

Not less than 20 watts RMS per channel into 8 ohms.

Damping Factor

Better than 80 into 8 ohms and 150 into 15 ohms.

Frequency Response

25-25,000 Hz ± 0.5 db.

Signal-to-Noise Ratio

Better than 60 db, pick-up; 70 db, tuner.

Total Harmonic Distortion

Less than 0.1% at 1 kHz at full rated output.

Less than 0.1% at 1 kHz at 0.5 watts output.

Input Overload Capability

Better than 60 db.

Sensitivity

PU 1 Magnetic 3mV impedance 47k ohms nominal.

PU 2 Ceramic 100mV impedance 100k ohms.

Tuner 100mV impedance 100k ohms.

Tape 50mV impedance 100k ohms.

Short circuit protection by electronic switch.

Persistent short-circuit protection by fuse.

Stable into open-circuit or complex impedances.

Dimensions: $16\frac{1}{2}'' \times 9\frac{5}{8}'' \times 2''$.

Weight: 12 lb.

Mains power requirements: 200/240V a.c.
110/120V a.c.

Two mains outlets (one switched).

OUR PRICE

£65.0.0 (£65.00) Carr. 10/- (50p)



Ferrograph's F.307 is one of the finest stereo amplifiers in the world. It has been designed to make the heart of great hi-fi systems.

It is an integrated stereo amplifier, built in the Ferrograph tradition to provide a unique combination of performance and facilities. Power output is 20 watts RMS per channel into a load of 8 ohms. Total harmonic distortion is less than 0.25% at 1 kHz at all levels up to its rated output. Silicon solid state devices are used throughout, with F.E.T.'s in certain input stages to provide high input impedances and large overload margins and thus to accommodate a wide range of input sources, including tape, ceramic and magnetic pick-ups, radio and auxiliary inputs, at their optimum levels. The signal-to-noise ratio, measured with volume control at maximum, is better than 65 db. Controls include four-input selector switch, switched mains outlets, press-button HF filter, comprehensive mono/stereo input and output switching. The

FERROGRAPH STEREO AMPLIFIER F307

main controls are readily to hand on the front panels; all others are conveniently placed under a hinged flap. Phones output suitable for headphones with an impedance of 15 ohms or more.

In appearance, the F.307 amplifier continues the uncluttered lines of the Ferrograph Series 7 recorder, the two making an ideal combination which is matched both visually and technically. But the amplifier is equally compatible with most other good recorders and hi-fi installations, suits innumerable amateurs and professional uses, blends with any decor, stands attractively on any bookshelf or room-divider.

When planning your hi-fi system the F.307 deserves your serious consideration.

Power Supply: 200-250V 50 Hz, 117V a.c. 60 Hz.

Size overall: $16\frac{1}{2}'' \times 5'' \times 9\frac{5}{8}''$.

£49.0.0 (£49.00) Carr. 10/- (50p)

Technical specification

Power Output:	2 x 5 watts
Frequency Response:	40-20,000 Hz \pm 3 db
Hum and Noise Level:	-55 db at 5 watts
Tone Controls:	Bass control: Boost and Cut 15 db at 100 Hz Treble control: Boost and Cut 15 db at 10,000 Hz reference 0 db at 1,000 Hz
Sensitivities:	Radio: 60mV into 47k P.U. Ceramic: 100mV into 500k P.U. Magnetic: 4mV into 47k RIAA Compensated Tape Input: 60mV into 47k Tape Output: 150mV into 47k
Loudspeaker Impedance:	Min: 8 ohms
Controls:	Mono-Stereo Switch Selector Switch: Disc-Radio Tape Volume Control On-Off Balance, Bass, Treble
Input-Output Sockets:	Magnetic P.U.: 2 x Phono Ceramic P.U.: 2 x Phono Radio: 2 x Phono Tape In-Out: 5 Pin DIN
Output Sockets	Loudspeaker: 2 x 2 pin DIN
Headphone Sockets:	Switched Jack socket on front panel automatically disconnecting loudspeakers when Jack is inserted.
Mains Voltage:	200-250V 50 Hz 3-core cable. Fully isolated
Fuse:	1 amp
Finish:	Teak
Dimensions:	14 $\frac{1}{2}$ " x 9 $\frac{1}{2}$ " x 3 $\frac{1}{2}$ " (36 x 23.5 x 9 cm)
Weight:	7.5 lb (3.4 kg)

STEREO 505 AMPLIFIER



10-watt amplifier. Magnetic or ceramic inputs. All the features of amplifiers twice its price. British built throughout. Latest circuit techniques. Beautifully styled in oiled teak cabinet with solid aluminium front finished brushed silver and black.

£16.19.6 (£16.97 $\frac{1}{2}$)
Carr. 7/6 (37 $\frac{1}{2}$ p)



DULCI MODEL 207 AMPLIFIER

£17.0.0 (£17.00) Carr. 7/6 (37 $\frac{1}{2}$ p)

Dimensions: 13 $\frac{3}{4}$ " x 2 $\frac{3}{4}$ " x 7"

Weight: 6 $\frac{1}{2}$ lbs.

Output: 2 x 7 watts

Sensitivity: Radio 100 mV, Tape 100 mV, P.U. 100 mV

Transistors: 12

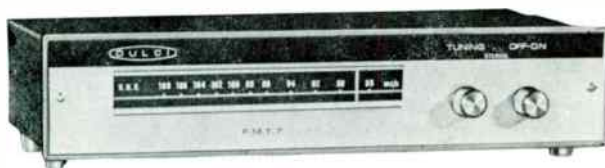
Absolutely the finest value in the Hi Fi field. Carefully designed with an extremely good specification, this amplifier is the ideal selection for those starting out to build their own high fidelity system. Supplied as a free-standing unit and fully enclosed with a protective case finished in dark grey, it is most elegant in appearance and simple in operation. It is suitable for use with pick-ups incorporating a crystal or ceramic cartridge. As selected by the Council of Industrial Design.

DULCI 207M STEREO AMPLIFIER

This model is identical in appearance to the 207 but has the additional facility of a 5 mV input suitable for matching to all

magnetic cartridges. The rest of the specification is identical but the circuitry now incorporates 16 transistors.

£20.19.0 (£20.95) Carr. 7/6 (37 $\frac{1}{2}$ p)



DULCI FMT7 FM TUNER

£20.10.0 (£20.50) Carr. 7/6 (37 $\frac{1}{2}$ p)

**TEAK SLEEVES
AVAILABLE FOR
207 AMPLIFIERS
OR
FMT7 TUNERS
at optional £3 extra**

Dimensions: 13 $\frac{3}{4}$ " x 2 $\frac{3}{4}$ " x 7"

Weight: 5 lbs.

AFC: \pm 250 Kcs

Audio Output: 100 mV

Tuning Range: 88-108 Mc/s

For the first time a highly efficient FM tuner at a realistic price. Built especially to match the 207 stereo amplifier, this tuner has been carefully designed in our laboratory to give the best possible performance in its price range. As selected by the Council of Industrial Design.

DULCI FMT7S STEREO TUNER

The specification is identical to the FMT7 but with built-in multiplex decoder. The very first Stereo FM tuner at a realistic

price. When stereo transmissions are not in operation, this tuner will accept the mono broadcasts and reproduce them monaurally.

£28.10.0 (£28.50) Carr. 7/6 (37 $\frac{1}{2}$ p)

EAGLE HIGH FIDELITY AM/FM TUNER

MODEL AFM.200



A perfect companion to the "EAGLE" SA.200 stereo amplifier. Offers many fine features including a FM Multiplex output socket for connection to a Multiplex adapter, and smooth, easy-to-use flywheel tuning. Beautifully styled in a low silhouette enclosure with silver front panel and grey cabinet. Complete with operating manual.

Specifications: FM Circuits: Armstrong circuit with dual limiters and wide band discriminator, Automatic frequency control (A.F.C.), low noise front end with tuned triode grounded grid amplifier and triode mixer. Tuning Range: 88-108 mc/s. Sensitivity: 2 μ V for 20 db quieting. Selectivity: 200 kc/s band width at 6 db down. Harmonic Distortion: Less than 1%. Hum Level: -56 db. Outputs: FM Audio, FM Multiplex terminal. Aerial Input: 300 ohms, unbalanced. Tuning Indicator: Magic eye. AM Circuits: Superheterodyne circuits, high fidelity detector. Tuning Range: 535-1605 kc/s. Maximum Sensitivity: 100 μ V. Output: AM Audio. Aerial. Lead aerial wire included. Tuning Indicator: Magic eye. Power Supply: Internal 240v. a.c. Valves: 1 \times 6AQ8, FM circuits, RF amplifier and mixer. 1 \times 6AQ8 AFC and oscillator. 2 \times 6BA6, first and second IF amplifiers. 2 \times 6AU6, first and second limiters. 1 \times 6AL5, Foster-Seeley discriminator. 1 \times 6BE6, AM circuits, oscillator and mixer. 1 \times 6BA6, IF Amplifier. 1 \times 6X4, rectifier. 1 \times 6DA5, magic eye.

£31.10.0 Carr. 10/-

EAGLE 15 WATT INTEGRATED STEREO AMPLIFIER

MODEL SA.200



A complete range of control facilities has been provided to ensure complete stereo capability and flexibility. Stereo, reverse stereo, monaural left channel and monaural right channel mode switch. A selector switch for aux. mike, tape, tuner or pick-up. Slide switches are included for: loudness, speaker/headphone, power plus input socket for headphone. Inputs for magnetic, crystal or ceramic cartridges, tuner, tape, auxiliary (high output) plus tape out jacks for recording through your tape recorder. Beautifully styled in a low silhouette enclosure—silver front panel with grey cabinet, complete with mounting legs.

Specifications: Power Output: 15 watts, 7.5 watts per channel. Frequency Response: \pm 2 db, 50-20,000 cps at 1 watt. Harmonic Distortion: Less than 1% at 15 watts (1 kc/s), less than .25% at 1 watt (1 kc/s). Hum and Noise: Volume maximum 20 mV (Tone flat). Sensitivity: Magnetic input 5 mV for 5 watts, crystal input 100 mV for 5 watts, tuner input 100 mV for 5 watts, tape input 5 mV for 5 watts, mike input 5 mV for 5 watts, Aux. input 5 mV for 5 watts, tape Play 200 mV. Base Control: Boost 8 db, cut 8 db (100 c/s). Treble Control: Boost 8 db, cut 8 db (10 kc/s). Channel Separation: Better than 35 db at 1 kc/s. Controls: Selector, mode, volume, bass, treble. Switches: Loudness, speaker/headphone, power. Output Impedance: 4, 8, 16 ohms. A.C. Output: 250 volt, 300 watts. Valves: 2-6BQ5, 1-6AQ8, 2-6BQ5, 1-6CA4. Dimensions: 12 $\frac{1}{4}$ " \times 4 $\frac{3}{4}$ " \times 8 $\frac{1}{4}$ ".

£27.10.0 Carr. 10/-



EAGLE SMC 10 AM/FM/MPX STEREO MUSIC CENTRE

This new low-cost addition to the stereo music centres provides all the superb AM and FM stereo facilities of the SMC.20 and SMC.60 as well as the same stereo inputs for phono and tape. Simple to connect and operate, three coloured indicator lamps show the function selected—AM, FM or Stereo FM MPX. Modern styling as well as performance raises the SMC.10 well above units in a comparable price range.

FM Section

Frequency Range: 88-108 MHz. **Sensitivity:** 2 μ V for 20 db quieting. **Stereo Separation:** 25 db at 1 kHz. **Image Rejection:** 60 db. **Aerial Input:** 75 ohms unbalanced.

AM Section

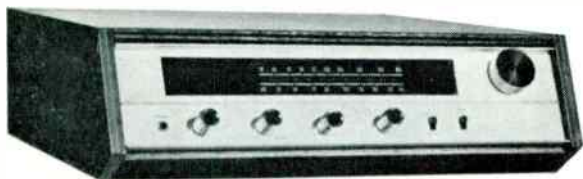
Frequency Range: 540-1600 kHz. **Sensitivity:** 250 μ V.

Audio Section

Output Power: 3.5 watts per channel (total peak 7 watts). **Frequency Range:** 30-18000 Hz. **Inputs:** Phono 500 mV, Tape 300 mV. **Signal to Noise:** Better than 50 db. **Dimensions:** 380 \times 160 \times 246 mm.

£37.8.6 (£37-42 $\frac{1}{2}$) Carr. 10/- (50p)

EAGLE SMC.20 AM/FM/MPX STEREO MUSIC CENTRE



This is a best buy for the man who wants a true stereo music centre—superb stereo tuner/amplifier, excellent distortion-free reception of AM, FM, and FM Stereo broadcasts, plus provision for swift fitting of any of the Series 20 range of Garrard Turntables—which simply drop into an optional cut-out. The purchaser has the comprehensiveness and versatility of an installation costing him many pounds more.

FM Section

Frequency Range: 88–108 MHz. **Sensitivity:** 2 μ V for 20 dB quieting. **Stereo Separation:** 30 dB at 1 kHz. **Image Rejection:** 60 dB. **Aerial Input:** 75 ohms unbalanced.

AM Section

Frequency Range: 535–1,600 kHz. **Sensitivity:** 250 mV.

Audio Section

Output Power: 5 watts RMS per channel (total peak 20 watts). **Frequency Range:** 25–20,000 Hz. **Inputs:** Tape 300 mV. **Signal to Noise:** Better than 55 dB. **Dimensions:** 420 × 130 × 400 mm.

£59.10.0 Carr. 15/-
(£59.50 Carr. 75p)

EAGLE SMC.60 AM/FM/MPX STEREO MUSIC CENTRE



This is designed for the man who wants the ultimate in quality—at a realistic price. More powerful than the SMC.20 (15 watts RMS per channel), it also has meter tuning, separate bass and treble controls and input facilities for magnetic cartridge. It is only a matter of minutes to install the appropriate Garrard Turntable in the optional cut-out.

FM Section

Frequency Range: 88–108 MHz. **Sensitivity:** 2 μ V for 20 dB quieting. **Stereo Separation:** 30 dB at 1 kHz. **Image Rejection:** 60 dB. **Aerial Input:** 75 ohms unbalanced.

AM Section

Frequency Range: 535–1,600 kHz. **Sensitivity:** 250 mV.

Audio Section

Output Power: 15 watts RMS per channel (total peak 60 watts). **Frequency Range:** 25–25,000 Hz. **Inputs:** Tape 300 mV. **Signal to Noise:** Better than 55 dB. **Dimensions:** 420 × 130 × 400 mm.

£86.10.0 Carr. 15/-
(£86.50 Carr. 75p)

EAGLE TSA.250 TRANSISTOR STEREO AMPLIFIER



Ideal amplifier for the stereo enthusiast on a budget. Excellent value at an attractive price. Inputs for all needs; 12.5 watts RMS per channel; minimum distortion; sturdily built for long service; housed in well-designed metal cabinet. This combination of quality and economy offers a unique opportunity.

Output Power: 12.5 watts RMS per channel (total peak 50 watts). **Frequency Range:** 25–22,000 Hz. **Inputs:** Magnetic 3 mV, Ceramic 200 mV, Tuner 200 mV, Aux 200 mV. **Signal to Noise:** Better than 50 dB. **Dimensions:** 330 × 108 × 250 mm.

£30.0.0 Carr. 7/6
(£30.00 Carr. 37½p)

EAGLE TSA.500 TRANSISTOR STEREO AMPLIFIER



This is the amplifier for the man with professional standards—powerful (25 watts RMS per channel), with first-class distortion-free performance; full range of controls, including loudness control. Inputs for all possible needs. Practical well-designed metal cabinet—and a keen price for such outstanding quality.

Output Power: 25 watts RMS per channel (total peak 100 watts). **Frequency Range:** 20–25,000 Hz. **Inputs:** Magnetic 3 mV, Tape Head 1.6 mV, Ceramic 200 mV, Tuner 280 mV, Aux 280 mV. **Signal to Noise:** Better than 50 dB. **Dimensions:** 345 × 110 × 260 mm.

£45.0.0 Carr. 7/6
(£45.00 Carr. 37½p)

EAGLE ALL TRANSISTOR STEREO AMPLIFIER

MODEL TSA.20



The TSA.20 is the ideal choice for the value-conscious Hi-Fi/Stereo enthusiast or beginner who requires a de luxe integrated stereo amplifier with the addition of advanced all-transistor design. A complete range of input connections enables the TSA.20 to work with magnetic, ceramic and crystal cartridges plus tuners and microphones. Front panel controls allow independent tone and volume settings for each channel, which means that they can be adjusted to suit individual room conditions and speaker systems. Output transformerless circuitry ensures magnificent sound reproduction with the minimum distortion and best damping effects. Beautifully styled in a low silhouette enclosure with brushed silver front panel and grey cabinet.

SPECIFICATIONS:

Output Power: 20 watts RMS per channel at 3 ohms. 10 watts RMS per channel at 8 ohms. **Frequency Response:** 30-20,000 cps ± 2 db. **Distortion:** Less than 1% at 5 watts. **Output Impedance:** 4-16 ohms (transformerless output). **Input Sensitivities:** Magnetic 3 mV (corrected to RIAA), Ceramic/Crystal 100 mV, Tuner 150 mV, Aux. 250 mV. **Signal to Noise Ratio:** Better

than 50 db (MAG). Better than 60 db (AUX). **Cross Talk:** Better than -45 db. **Controls:** Independent Tone and Volume controls for each channel. **Phono, Tuner, Aux., Selector switch. Stereo normal, Stereo reverse, Monaural mode switch. Transistors:** 12 transistors (silicon types in pre-amplifier), 2 silicon diodes. **Size:** 10" \times 4 $\frac{1}{2}$ " \times 8". **£22.0.0 Carr. 7/6**

Eagle 10-Watt Integrated Stereo Amplifier SA.100

Matchless performance and styling at a price only 'EAGLE' can offer.

This de-luxe stereo amplifier features engineering design and quality of construction worthy of use in the finest stereophonic music system.

Versatility of controls assure matchless performance from all programme sources.

A compact versatile integrated unit for monaural or stereophonic reproduction of Record Player, Tape Recorder and Tuner.

Beautifully styled in a low silhouette enclosure with silver front panel and grey cabinet.

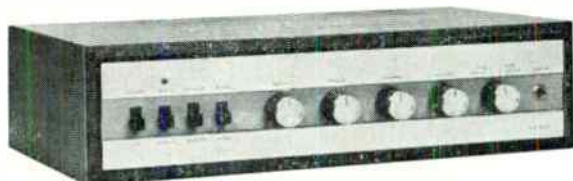
SPECIFICATIONS:

Power Output: 10 watts, 5 watts per channel. **Frequency Response:** ± 1 db, 40-20,000 cps. **Harmonic Distortion:** Less than 1% at full power output. **Hum and Noise:** 58 db below rated output. **Sensitivity:** 300 mV over all inputs. **Cross Talk at 1 C:** Better than 40 db.

Tone Control: More than minus 14 db at 10,000 cps. **Selector Switch:** PHONO, TUNER, AUX. **Mode Switch:** STEREO, MONAURAL, NORMAL, INVERT. **Output Impedances:** 4, 8, 16 ohms each channel. **Operating Voltage:** 240 v. a.c. **Dimensions:** 9 $\frac{1}{4}$ " \times 4 $\frac{1}{2}$ " \times 7". **£18.18.0. Carr. 7/6**



Eagle TSA.150 All-silicon Transistor Stereo Amplifier



£26.7.6. Carr. 7/6

Powerful, distortion-free stereo amplifier, housed in attractive wooden cabinet. Separate terminals for main and remote speaker systems—either set of speakers can be switched in independently, if required. Better performance at a price to appeal to the value-conscious enthusiast.

Specifications:

Output Power: 7.5 watts RMS per channel (total peak 30 watts). **Frequency Range:** 30-18,000 Hz. **Inputs:** Magnetic 3.5 mV, Ceramic 100 mV, Tuner 100 mV, Aux 100 mV. **Signal to Noise:** Better than 50 dB. **Dimensions:** 330 \times 80 \times 220 mm.



EAGLE

TSA.60 30 Watt Transistor Stereo Amplifier AFT.60 AM/FM/MPX Silicon Transistor Stereo Tuner

Two brilliant new "All Modular—All Transistor—Total Performance" matching stereo units. Versatile enough for the audiophile, simple enough for the beginner. Superb performance yet so sensibly priced; we earnestly invite you to compare these two new models with any others available . . . you won't find anything that will give you such honest-for-value money.

AFT.60—Offering you what you want in a quality Stereo Tuner, at a price considered unbelievable until EAGLE DID IT. All-silicon transistor, all-modular circuitry ensures crystal-clear transparency on AM/FM and FM/MPX Bands. AGC, AFC, MPX filter, 4-stage, double tuned IF and transistor stabilized power supply circuits for maximum sensitivity, selectivity, stereo separation and stability. Variable output voltage. Tuning level meter and stereo station indicator. Housed in magnificent TEAK cabinet.

AFT.60 SPECIFICATIONS

FM Tuner Section:

Frequency Range: 88–108.5 mhz. Sensitivity: 2 μ V between 88–108 mhz for 20 db quieting. Stereo Separation: 25 db at 1 kHz. Image Rejection: 50 db. F Stages: 4 sets, double tuned. Aerial Input: 75 ohms unbalanced.

AM Tuner Section:

Frequency Range: 600–16,000 Hz. Sensitivity: 500 μ V. Image Rejection: 30 db

General:

Controls: Tuning AM/FM/Mono/FM/Stereo Switch, On/Off Switch, Stereo Noise Filter, AFC Switch. Output Voltage: Variable from 50–200 mV by rear panel control. Indicators: AM/FM Tuning Level Meter; FM Stereo Beacon. Transistors: 13 silicon transistors. Power Supply: 220/240 volts AC transistor stabilised internal power supply. Tuning Mechanism: Fly wheel drive. Size: 12 $\frac{3}{4}$ " x 4 $\frac{1}{2}$ " x 9 $\frac{1}{2}$ ".

£48.10.0

CARR. 7/6

TSA.60—This Amplifier will change people's thinking about what quality stereo prices should be. Here is the natural transparency of transistor sound. 30 watts of RMS power for easy smooth handling of transient bursts of sound. The ruggedness and long life of all-transistor, all-modular circuitry. Complete control facilities. Housed in a magnificent TEAK cabinet.

TSA.60 SPECIFICATIONS

Power Output: 30 watts RMS (15 watts RMS per channel at 8 ohms); 60 watts IHFM (30 watts IHFM per channel at 8 ohms). Output Impedance: 4–16 ohms. Distortion: Less than 1% at 9 watts RMS. Frequency Response: 30–20,000 Hzs, \pm 2 db. Sensitivity and Impedance: Phono Magnetic: 5 mV at 47 ohms (RIAA); Phono Ceramic: 100 mV at 1M ohm; Tape Amplifier: 250 mV at 100K ohm (flat); Tuner: 100 mV at 100K ohm (flat); Tape Recorder output: 150 mV at 50K ohm. Signal to Noise Ratio: Phono Magnetic: Better than –45 db; Phono Ceramic: Better than –45 db; Tape Amplifier: Better than –50 db; Tuner: Better than –50 db. Tone Controls: Bass \pm 10 db at 100 Hz; Treble: \pm 10 db at 10 kHz. Controls: Selector Switch, Volume, Balance, Treble, Bass, On/Off Switch, Mono/Stereo Selector, Stereo Headphone Socket. Transistors: 14 transistors, 4 diodes (Bridge rectifier). Power Supply: 220/240 volts AV 50 Hz. AC outlet for connection to AFT.60 or other auxiliary equipment. Size 12 $\frac{3}{4}$ " x 4 $\frac{1}{2}$ " x 9 $\frac{1}{2}$ ".

£36.10.0

CARR. 7/6

EAGLE ALL TRANSISTOR STEREO AMPLIFIER

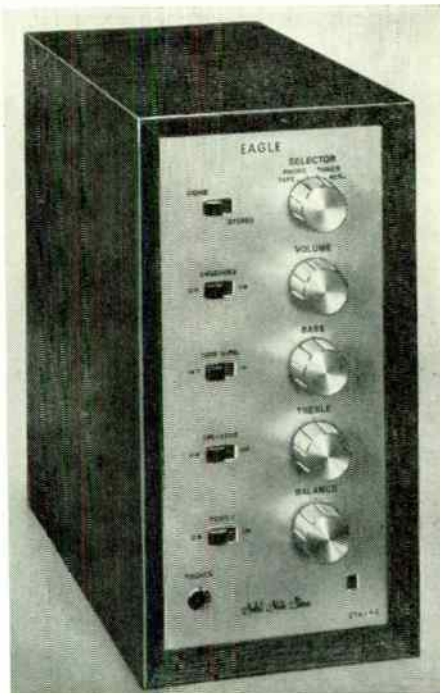
MODEL VTA.40

Eagle proudly introduces this magnificent all-transistor stereo amplifier. In every aspect of its design, from appearance to performance, the VTA.40 is the most technically advanced and outstanding amplifier on the British market. The VTA.40 has taken two years to develop and is now being exported to 14 countries, hence, we now have production quantities that no other amplifier manufacturer can rival and quantity production means lower costs. The VTA.40 provides a complete stereophonic pre-amplifier and a dual-channel 20 watts power amplifier. All-transistor circuit ensures cool operation, instant warm-up, no microphonics, considerable reduction of hum and noise, low distortion and superb transient response. Features exclusive "circuit breaker" overload protection controls which act with incredible speed to protect the output power transistors. Other features include: Front panel stereo headphone socket, direct tape monitor facilities, automatic loudness compensation, speaker silencing switch, push-button speaker terminals, comprehensive controls of utmost versatility. Walnut cabinet of vertical and compact design to match the wide range of new EAGLE compact speaker systems. These features, coupled with its advanced all-modular circuit design result in an amplifier of outstanding quality that must be heard to be appreciated, and one we know you will be proud to own.

£36.10.0 Carr. 10/- (£36.50 Carr. 50p)

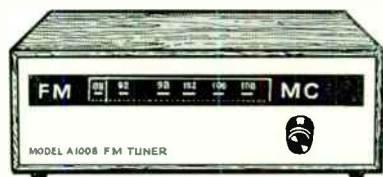
SPECIFICATIONS

Power Output; 20 watts RMS (10 watts RMS per channel at 8 ohms), 40 watts IHFM (20 watts IHFM per channel at 8 ohms). Distortion: Less than 1% at 8 watts. Frequency Response: 20-20,000 Hz \pm 2 db. Sensitivity and Equalisation: Tape Head: 2 mV RMS N.A.R.T.B. Phono: 3 mV R.I.A.A. Tuner: 100 mV RMS Flat. Aux.: 300 mV RMS Flat. Tape Monitor: 160 mV RMS Flat. Tape Record Output: 150 mV RMS Flat. Signal to Noise Ratio: Tape Head: Better than -48 db. Phono: Better than -54 db. Tuner: Better than -85 db.



Aux.: Better than -58 db. Tone Controls: Bass: +11.5 db at 70 Hz Bass: -13.5 db at 70 Hz. Treble: +11 db at 10 kHz. Treble: -14 db at 10 kHz. Controls: Selector Switch; Volume Control; Base Control; Treble Control; Balance Control; Mono-stereo Selector Switch; Loudness Switch; Tape Monitor Switch; Speaker On/Off Switch; Power On/Off Switch; Stereo-phones Socket. Transistors: 14 transistors (6 silicon in pre-amplifier stage). Two diodes. Power Supply: 240 volts AC 50 c/s. AC Outlet on Amplifier for connection of auxiliary equipment. Size: 9" high x 4½" wide x 9" deep.

FM TUNER MODEL A.1008



For size, quality and price the A.1008 FM Tuner is unbeatable. Probably the world's most compact FM tuner with 6 transistor and 3 diode printed circuit, self-powered—operating from any 9-volt d.c. source. Slow-motion tuning drive. Housed in beautifully finished walnut cabinet with classic silver trim. Clear horizontal tuning scale covering the entire FM band from 88-108 Mc/s. Complete with FM aerial. Brief Spec.: Aerial Imp. 75 ohms. Sensitivity better than 10 μ V (at 100% modulation for 20 dB S/V). Size 7¼" x 5" x 3½".

£9.19.6 (£9.97½)

Also available A1005M. Multiplex Decoder 99/6 (£4.97½)

FANTAVOX 500 12 WATT STEREO AMPLIFIER

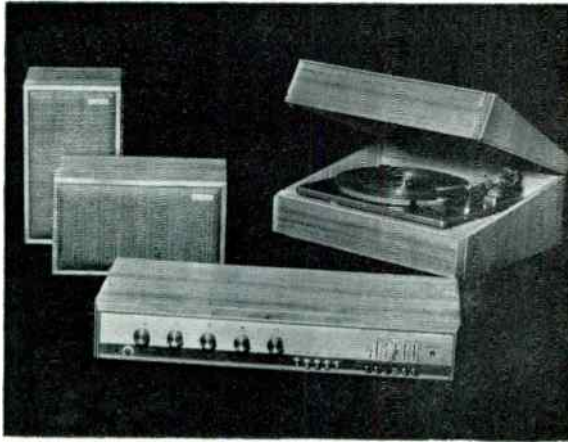


This outstanding amplifier incorporates all the features expected of an expensive unit but at a budget price. The amplifier has separate tone and volume controls for both channels plus stereo mono switch and tuner output socket. Finished in an attractive walnut grained metal cabinet this amplifier would be a proud addition to any budget stereo system. Brief Spec.: Output, Peak Power 12 watts. Freq. Response: 40-20,000 Hz. Output Impedance 4-16 ohms. Input Sensitivity, Phono/Tuner 250 mV.

£11.19.6 Carr. 5/- (£11.97½ Carr. 25p)

AFTER SALES SERVICE AND SPARES

Full range of spares available for all imported equipment shown in this catalogue plus an efficient After Sales Service



GOODMANS MUSIC SUITE

3000 STEREO TUNER/AMPLIFIER

The heart of the Music Suite is the Goodmans 3000 combined Stereo Amplifier and Stereo FM Radio Tuner built to DIN standards. The illustration shows the simplicity, versatility and sophistication of design. Beautifully finished in teak.

MUSIC SUITE RECORD PLAYER THE GOODMANS 3025

Goodmans 3025 comes complete with arm and pick-up head and stylus and is a single record turntable. Four standard speeds; weight counterbalanced pick-up arm, bias compensated; cue and pause control; automatic switch-off. Housed in handsome polished wood cabinet with hinged lid and inspection window. Beautifully finished in teak.

Dimensions: Height: closed $7\frac{1}{8}$ " , open $20\frac{3}{8}$ " .
Width: $16\frac{3}{4}$ " . Depth: closed $14\frac{1}{2}$ " , open $15\frac{3}{4}$ " .

Speeds: $16\frac{2}{3}$, $33\frac{1}{3}$, 45, 78 r.p.m.

Motor: 4-pole induction.

Turntable: $10\frac{1}{2}$ " diameter.

Cartridge: Dynamic.

Stylus: Diamond.

£32.19.6 Carr. 10/-
(£32.97½ Carr. 50p)

MUSIC SUITE LOUDSPEAKER SYSTEMS THE GOODMANS 3005's

Smooth and unobtrusive appearance, only $7" \times 12" \times 7"$ deep, handling 15 watts, these attractive little speakers are specially built to complement the Goodmans 3000. Full frequency range coverage with smooth, delicate precision. Should, however, larger loudspeakers be preferred, any of the famous M-range of High Fidelity Loudspeakers is suitable for use in the Music Suite.

Dimensions: $7" \times 12" \times 7"$ deep.

Power: 15 watts.

Finish: Teak.

£16.19.6 per pair Carr. 10/-
(£16.97½ per pair Carr. 50p)

SPECIFICATIONS

Overall Dimensions: $21\frac{3}{4}"$ wide \times $10\frac{3}{4}"$ deep \times 4" high including feet (55.2 cm \times 27.3 cm \times 10.2 cm).

Weight: 14 lb (6.3 kg).

Power Supply: 120/220/245V 50 Hz.

Power Consumption: 20-80 watts.

Amplifier Frequency Response: 30 Hz-20 kHz ± 3 dB (40 Hz-16 kHz ± 1 dB). (With tone controls set level, volume control at maximum)

Speech and Music Output: 25 watts per channel into 4 ohm load at 1 kHz.

Power Output: 15 watts per channel (sine) into 4 ohms; 12 watts per channel (sine) into 8 ohms; 10 watts per channel (sine) into 15 ohms. All measured at 1 kHz.

Total Harmonic Distortion: Less than 0.5% at 1 kHz (15 watts sine output).

FM Tuner RF Sensitivity: (Typical) $3\mu V$ for 26 dB Signal/Noise ratio. Limiting level better than $10\mu V$.

FM Tuning Range: 87.5 MHz-108 MHz (five pre-tunable push buttons. Switchable AFC).

FM Antenna Input: 240 ohms balanced.

Tone Controls: 0 dB at 1 kHz. Bass: ± 14 dB at 50 Hz. Treble: ± 12 dB to -15 dB at 10 kHz.

Record Player Sockets (DIN 5-pin): Magnetic Pickup (M) Input: 6.8 mV into 47 k ohms for 15 watts sine wave output. Ceramic Pickup (K) Input: 220 mV into 1.2 m ohms for 15 watts sine wave output.

Tape Socket (DIN 5-pin): Input: 300 mV into 56 k ohms for 15 watts sine wave output. Output: 60 mV at 68 k ohms with 1 mV VHF input, 25 kHz deviation.

Auxiliary Socket (DIN 5-pin): Input: 20 mV into 6.8 k ohms for 15 watts sine wave output.

Stereo Headphone Socket (automatic speaker muting): Recommended Headphone Impedance: 300-600 ohms.

Semi-Conductors: 33 Transistors, 15 Diodes, 1 Zener Diode, 4 Power Rectifier Diodes, 2 Vari-cap Diodes.

£55.19.6 Carr. 10/-
(£55.97½ Carr. 50p)

PACKAGE DEAL OFFER!

GOODMANS 3000 TUNER AMPLIFIER WITH GOODMANS 3025 RECORD PLAYER AND A PAIR OF GOODMANS 3005 SPEAKER SYSTEMS.

Normal Recommended List Price £140.9.4

OUR PRICE £95.19.6 Carr. & Ins. 30/-

(£95.97½ Carr. & Ins. £1.50)

GOODMANS AUDIO SUITE



AUDIO SUITE RADIO (Tuner)

The Stereomax is the Goodmans Audio Suite Tuner and provides the radio signal to the amplifier. It has AM and FM wavebands as well as stereophonic FM—built in.

It is designed to complement the MAXAMP 30 both in performance and styling and is the same compact size as the MAXAMP and the MAXIM (5½" x 10½" x 7½" deep). Stereomax uses silicon transistors throughout (18 transistors and 18 diodes) and receives both AM, FM and stereo FM programmes with incomparable reliability, stability and accuracy. The controls are at once sophisticated yet very simple to use. For example, separate tuning for AM and FM enables switching to the or the waveband without disturbing the selected station. The polished wood cabinet (teak or walnut finish to order) is easily removable for flush panel mounting. The control panel—like the MAXAMP—is in Danish Silver finish. The picture shows the 'perfect partnership'.

sisters throughout (18 transistors and 18 diodes) and receives both AM, FM and stereo FM programmes with incomparable reliability, stability and accuracy. The controls are at once sophisticated yet very simple to use. For example, separate tuning for AM and FM enables switching to the or the waveband without disturbing the selected station. The polished wood cabinet (teak or walnut finish to order) is easily removable for flush panel mounting. The control panel—like the MAXAMP—is in Danish Silver finish. The picture shows the 'perfect partnership'.



Specification

Tuning Range: FM 87.5–108 MHz; AM 1650–545 kHz (186–550 metres).

Distortion: Overall harmonic distortion:

FM <0.6% at 100% modulation.

AM <1.5% at 1 mV input measured at 30% modulation 400 Hz.

Hum —80 dB.

Supply: Adjustable for 105–120–200–220–240 volts a.c. 40/60 Hz.

£65.19.6 Carr. 10/–

(£65.97½ Carr. 50p)

M.T.1000 AUDIO SUITE RECORD PLAYER

The M.T. 1000 is the AUDIO SUITE record player complete. The superb Thorens TD150A turntable and Shure M75-MB stereo cartridge have been selected to meet the same high standard as the other AUDIO SUITE units. The cabinet is smoothly styled to complement the rest of the AUDIO SUITE and is available in teak and walnut finish with sleek see-through panel at the front edges. The cartridge in the head-shell is jig-aligned and each and every machine is checked for output, stereo balance and general performance at the main Wembley factory.

Specification

Two-speed 33½ and 45 r.p.m.

Heavy (7½ lbs.) Two-part Non-ferrous Turntable.

Built-in Lowering Device.

•0006" Diamond Stylus for mono and stereo use.

20 Hz–20,000 Hz Frequency Range.

Recommended Playing Weight 2 grams.

Solid Wood Cabinet (Teak or Walnut finish) with inspection window.

Cartridge meticulously aligned and checked.

Goodmans' Guarantee.

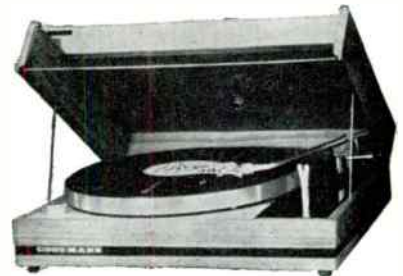
Dimensions:

Width 15½" x 13 ½" depth (closed)

Width 15½" x 16½" depth (open)

Height including feet 5½" (closed)

Height including feet 16½" (open)



£65.0.0 Carr. £1

(£65.00 Carr. £1.00)



MAXAMP 30 AUDIO SUITE AMPLIFIER

Introduced in 1966, the MAXAMP 30 is the first British High Fidelity all-silicon transistor stereophonic amplifier. It has a power output of 15 watts per channel and is available in teak- or walnut-finish cabinet to order. It measures only 10½" x 5½" x 7½" deep (the same as the Stereomax and the Maxim) and has a performance of the highest order. (Send for copy of the MAXAMP Review Leaflet—this is a collection of famous critics' test reports). It

is complete with integrated pre-amplifier and power pack and can be used as it stands or removed from its cabinet for panel mounting. It is precision engineered and built throughout and looks as good as it is!

Performance Specification

Power Output:

30 watts r.m.s. maximum (15 watts per channel) into an 8-ohm load.

20 watts r.m.s. maximum (10 watts per channel) into a 4- or -15-ohm load.

Total Harmonic Distortion: Less than 0.3% for 15 watts per channel into an 8-ohm load at 1000 Hz.

Frequency Response: 20 Hz–20 kHz ±½ dB.

Inputs:

Pick-up: Monophonic or stereophonic; RIAA characteristic.

Radio Tuner: Monophonic or stereophonic; flat characteristic.

Tape: Monophonic or stereophonic; flat characteristic.

Auxiliary: Monophonic or stereophonic; for low output microphones tape heads, etc., flat characteristic.

Outputs:

Loudspeakers: 4–8–15 ohms.

Tape: High level signal for tape recording.

Supply: Adjustable for 105–120–200–220–240 volts, a.c. 40/60 Hz.

£38.19.6 Carr. 10/–

(£38.97½ Carr. 50p)

LAFAYETTE AM/FM STEREO RECEIVER MODEL LR-1000T



SPECIFICATIONS—TUNER SECTION:

4 Gang Tuning Condenser. Usable FM Sensitivity IHF: 1.65 μ v. FM Stereo Separation: 38 dB at 400 Hz. Signal-to-Noise Ratio: 68dB. Spurious Response Rejection: 95 dB. Harmonic Distortion: at 100% modulation, 0.4%. Capture Ratio: 1.5 dB. Cross Modulation Index: 90 dB. FM Antenna Impedance: 300 ohms balanced. AM Section: 3 gang tuning condenser. IHF External antenna sensitivity: 18 μ v.

AMPLIFIER SECTION:

Power: 80 watts R.M.S. at 4 ohm; 40 watts per channel, 60 watts at 8 ohms. Frequency Response: 22-20,000 Hz \pm 1dB. Harmonic Distortion: at rated output, less than 1%. IM Distortion: at rated output, 0.4% Hum and Noise: Tape Head, -57 dB; Phono (high), -57 dB; Auxiliary, -75 dB. Power Bandwidth: 20-40000, Hz. Input Sensitivity: Tape Head, 2.5 mV; Phono (high), 2.2 mV; Phono (low), 7 mV; Auxiliary, 270 mV. Output Impedance: 4-16 ohms; low impedance stereo headphones.

COMPUTOR-MATIC T.M. (Pat. Pend.) Protective Circuitry for Audio Power Stages.

Centre Channel Output. High/Low Phono Sensitivity Switch. Exclusive Front and Rear Panel Tape Output Jacks. 4 Integrated Circuits plus 31 Transistors, plus 2 FET's plus 17 Diodes. 80 watts of Sterling Stereo Output Power. Automatic FM Stereo Switching. Interstation Muting Control. Built-in FM Antenna plus Loopstick AM Antenna.

Stereo Indicator Light. Automatically Switches "On" When FM Stereo Programme is Being Received. Coloured Function Lights to Indicate Phono, Tape, or Auxiliary Settings of The Selector Switch.

Softly Illuminated D'Arsonval Signal Strength Meter Permits Fast, Accurate Tuning on FM and AM. Selector Switch Determines the Mode of Operation for The Receiver—AM, FM Filter, FM, Phono, Tape Head and Auxiliary.

The exceptional component quality and enduring performance of the LR-1000T contribute directly to its superb sound reproduction. Features the new space age miracle, integrated Circuits ("IC's"), plus FET's in the tuner front end to assure you of outstanding selectivity, stability, and superior capture ratio; ingenious computer-type circuitry (patent pending) for protection of audio driver and power output transistors. In addition to advanced circuitry you have all the controls you need to adjust the sound to your particular taste; separate Bass, Treble, and Volume controls plus a Balance control. Other features include special filter that can be switched in or out from the front panel to minimize high frequency noise; precision vernier tuning control; front panel headphone output jack; tape output jack for direct tape recording without use of a separate amplifier; tape monitor and loudness switches; mode and selector switches; special muting control; signal strength tuning meter; coloured function lights and automatic FM stereo indicator light. Complete input and output facilities designed for easy installation and connection to any programme source or external components. It's professional styling is enhanced by a brushed gold anodized extruded aluminium front panel and simulated walnut grain metal case. Size: 15 $\frac{1}{2}$ "W x 4 $\frac{1}{2}$ "H x 11 $\frac{1}{2}$ ". 220/240v AC.

£105 0 0 Carr. 10/

LAFAYETTE AM/FM STEREO RECEIVER MODEL LR-500T



SPECIFICATIONS—TUNER SECTION:

4 Gang Tuning Condenser. Tuning Range: FM 88-108 MHz, AM 535-1605 kHz. FM-IHF Sensitivity: 1.8 μ v 5/N Ratio: 67 dB. Distortion: 0.5% at 100% Mod. Spurious Response Rejection: 95 dB. Capture Ratio: 1.5 dB Stereo MPX. Separation: 35 dB at 400 Hz. Cross Modulation Index: 90 dB AM Section: 3 Gang Tuning Condenser. IHF External Antenna Sensitivity: 20 μ v.

AMPLIFIER SECTION:

Power: 40 watts R.M.S. at 4 ohms; 20 watts per channel. 33 watts at 8 ohms. Frequency Response: 22-20,000 Hz \pm 1 dB. Power Bandwidth: 22-40,000 Hz. Harmonic Distortion: Less than 1% at full output: 0.3% at 1 watt. Hum and Noise: Auxiliary -72 dB; Phono -55 dB. Input Sensitivity: Mag. Phono 2.2 mV; Aux. 270 mV; Tape in 500mV. Output Impedance: 4-16 ohm speaker (main and remote) INTEGRATED CIRCUITS

The size of a tiny transistor, each IC contains a complete circuit in miniature with 5 transistors and 2 resistors. Provide dramatic improvements in FM reception, plus life-time dependability

4 Integrated Circuits plus 29 transistors plus 2 FET's plus 17 Diodes. 40 watts of Flawless Stereo Output Power. Automatic FM Stereo Switching and Indicator Light. Illuminated Tuning Meter for Accurate FM/AM Tuning. Fused Output Transistors—Protects Transistors Against Shorts and Overloads. Exclusive Front and Rear Panel Tape Output Jacks. Speaker Mode Switch Activates Main and/or Remote Speakers or both, plus headphone only position. Front Panel Stereo Phono Jack.

Just add speakers and an antenna, then sit back and enjoy the magnificent FM Stereo sound that comes from the finest AM/FM Stereo receiver we have ever built. Employing space-age technology in its design, the LR-500T incorporates 4 revolutionary integrated Circuits and 2 high-performance Field Effect Transistors in the FM section to provide exemplary FM stereo reception. And, because of the amazing reliability of these new devices, you are assured of this superior performance for many years to come.

Advanced solid-state engineering has been applied to other areas of the receiver too. AM broadcast reception is improved to let you hear your favourite AM stations with maximum possible fidelity. There's a built-in AM antenna for local stations, plus provisions for an external antenna for those distant, hard-to-get stations. And all programme sources are superbly reproduced through the audio section. 4 rugged silicon output transistors, delivering 40 watts of stereo music power with full fidelity assure you of stunning realism and there's every needed control for complete flexibility of operation, plus a full range of stereo inputs to accommodate virtually any external programme source. You get outputs for stereo tape recording (both front and rear of unit for convenience), provision for 4, 8 or 16 ohm main and remote speakers, plus a stereo headphone receptacle. Check the distinctive styling too. There's a handsome brushed gold anodized extruded aluminium front panel with matching knobs and a vinyl-clad heavy gauge metal enclosure with the simulated look of rich walnut wood-grain. Size: 15"W x 12"D x 5" H. 220/240v AC.

£85 0 0 Carr 10/



SPECIFICATIONS—TUNER SECTION:

FM: 4 Gang Tuning Condenser. Tuning Range: 88-108 MHz. IHF Sensitivity: 2.5 μ v. 5/N Ratio: -60 dB. Distortion: 0.7% at 100% Mod. Spurious Rejection: 70 dB. Capture Ratio: 5 dB. Stereo MPX Separation: 35 dB at 400 Hz. Selectivity: 40 dB. Antenna Impedance: 300 ohm Balanced. AM: 3 Gang Tuning Condenser. Tuning Range: 535-1,605 kHz. Image Rejection: 50 dB.

AMPLIFIER SECTION:

Power Output: 25 watts \pm 1 dB. Power Bandwidth: 35-30,000 Hz. Frequency Response: 20-20,000 Hz \pm 1.5 dB. Harmonic Distortion: 0.1% at 1 watt. Hum/Noise: Auxiliary -75 dB; Mag. Phono -60 dB; Ceramic Phono -55 dB. Input Sensitivity: Mag. Phono 2.3 mV; Ceramic Phono 80 mV; Auxiliary 250 mV. Output Impedance: 4-16 ohm Speaker (main and remote); 8 ohm Headphones. 33 Transistors, 25 Diodes and 2 Thermistors. 25 watts \pm 1 dB Stereo Amplifier. 4 Gang FM Tuning Condenser for Extra Sensitivity. Illuminated Signal Strength Tuning Meter. Built-in FM plus Flexible Mount AM Antenna. Front and Rear Panel Tape Output Jacks. Front Panel Stereo Headphone Jack. High Frequency Filter.

LAFAYETTE AM/FM STEREO RECEIVER MODEL LR-100

An outstanding hi-fi value, the Lafayette LR-100 features de-luxe decorator-designed styling plus full-range, full-fidelity sound from thrilling stereo or mono FM broadcasts, AM broadcasts, as well as phono or tape. A full complement of front panel tone controls (Bass, Treble, Volume/Balance) and push-button switches (Loudness, Stereo/Mono, High Filter) enable the LR-100 to be tailored to the acoustical characteristics of any room and to match the sound characteristics of virtually any phono cartridge, tape plater or speaker system—performance features normally included only on much more expensive hi-fi components. Excellent sensitivity, selectivity, and capture ratio are inherent in the technologically advanced and long-life circuitry of the LR-100. You will be delighted with the clear reception of the weak as well as the stronger stations! The amplifier section has power to spare... 25 watts (12 $\frac{1}{2}$ watts per channel) will drive main and remote stereo speakers, and will easily fill any room with clean, wall-to-wall sound. Some additional fine features of the LR-100 are: automatic stereo switching; signal-strength tuning meter for more accurate tuning; MPX filter; FM stereo indicator light; front and rear panel tape outputs for easier tape recording; stereo headphone output for enjoyable private listening; fused speaker outputs; distinctively styled front panel and attractive simulated walnut grain vinyl-clad metal case. Size: 14 $\frac{1}{2}$ " wide x 4 $\frac{1}{2}$ " high x 10 $\frac{1}{2}$ " deep.

£67 10 0 Carr 10/

LAFAYETTE STEREO AMPLIFIER MODEL STEREO 10



Left/Right Channel Volume Controls. Front Panel Switch for Selection of Phono or Tuner Input. Variable Tone Control. Selector Switch for Monaural or Stereo Operation. 5 watts per channel I.H.F. Music Power.

COMPACT SIZE, BIG PERFORMANCE! Ideal amplifier for Hi-Fi beginners, or use it in a second system for the bedroom or business. Perfect for limited-space installation. For use with record players, AM, FM and FM MPX tuners. Completely transistorized to provide clean, cool operation. Output stages couple directly to the speakers for smooth frequency response and low distortion. Input stages are designed to present a high impedance, resulting in an excellent low frequency response when used with high impedance crystal or ceramic phono cartridges. Front panel features: Separate volume controls for Left/Right channels; tone control for Bass and Treble; individual slide switches for mode input (1 Stereo/Mono operation), (1 phono/Tuner input); power On/Off slide switch. Rear Panel features: Right/Left channel inputs for phono and tuner; Right/Left channel taps for 8 ohm speakers. Beautifully finished in neutral grey and aluminium. Size: $7\frac{1}{2}$ " W x $2\frac{1}{2}$ " H x $5\frac{3}{8}$ " D. 220/240v AC.

£11. 19. 6. Carr. 7/-

LAFAYETTE STEREO AMPLIFIER MODEL LA-85T



Output 60 watts R.M.S. Cool and Instant Operation. Tape Record Inputs. Play back Outputs. Brushed Aluminium. Gold Anodized Extruded Front Panel. Simulated Walnut Wood Grain Case. Direct Coupled Output Matches 4, 8 or 16 Ohm Speakers. Fused Output Transistors. 2 AC Outlet Sockets (1 Switched).

Quality solid state stereo pre-amplifier and dual channel 60 watt amplifier on one integrated chassis. Compact size and minimum of heat make for easy installation anywhere. Instant play, no waiting for warm-up, and lasting trouble-free operation with an exceptionally low degree of hum and noise are characteristic of this quality transistorized amplifier. The LA-85T also features 4-stereo inputs which accept stereo/monaural phono, tape head, tuner, and auxiliary; speaker outputs for 4, 8 or 16 ohm impedance, plus convenient front and rear outputs for direct stereo taping. Front panel stereo headphone jack. Remote/Main speaker selector switch. High Filter for elimination of high frequency noises. Loudness switch for compensation of tonal quality at low volume levels. Controls include: Bass and Treble tone controls; separate dual concentric Volume control for each channel; Mode switch selects R/L input, Mono, Stereo, Reverse and Tape Monitor; Selector switch selects any of 4 different programme sources. Size 13 " W x $3\frac{3}{8}$ " H x $9\frac{1}{4}$ " D. 220/240v AC.

£45 0 0 Carr 10/-

LAFAYETTE STEREO AMPLIFIER MODEL LA-450



Advanced Features for Better Listening. Output. 33 watts R.M.S. Frequency Response: 20-20,000 Hz at 1 watt \pm 1.5 dB. Hi-Filter for Elimination of High Frequency Noises. Smart Distinctive Styling. Front Headphone Jack for Private Listening. 9 Versatile Controls. Front and Rear Tape Output Jacks. Speaker Mode Selector Switch Permits Main, Main and Remote, or Remote Speaker Output.

A fresh startling concept of excellent craftsmanship and personal pride in manufacture and production . . . the LA-450 is perfectly suited for any "high quality" minimum priced stereo system! Full solid state circuitry delivers a full power-packed punch, and faithfully reproduces audio sound with an ultimate degree of realism. The controls and heavy-duty rocker switches are smooth and positive acting and reflect the quality of workmanship and attention to detail. Front Panel controls include Volume, Channel Balance, Bass and Treble, Stereo/Mono Mode, Input Selector for choice of programme source, Hi-Filter, Speaker Mode, Loudness, and Power On/Off. Tone controls work on both channels simultaneously. Front panel jack permits stereophonic headphone listening. Rear panel jacks accommodate all programme sources that are normally included on the most sophisticated amplifiers; separate pairs of inputs for magnetic and ceramic phono; tuner; and auxiliary. Main and remote speaker outputs are fused to protect output transistors against speaker shorts. Outputs (front and rear) allow direct recordings through your tape recorder. Two AC outlet sockets (1 switched) provide AC power to external component equipment. Smartly and distinctively styled, its black silhouette front panel with silver trim is complementary to most decors. Housed in a black wrinkle metal enclosure. Size: $10\frac{1}{8}$ " W x $3\frac{3}{8}$ " H $8\frac{1}{2}$ " D. 220/240v AC.

SPECIFICATIONS

Output 33 watts R.M.S. $16\frac{1}{2}$ watts per channel at 4 ohms. Frequency Response: 20-20,000 Hz \pm 1.5 dB. Harmonic Distortion: 1% or less. Hum and Noise: Magnetic Phono - 53 dB; Auxiliary -60 dB. Sensitivity: Magnetic Input 3 mV; Auxiliary 250 mV. Speaker outputs for all 4, 8 and 16 ohm impedance speakers. Solid State Circuitry: 20 Transistors, 4 Diodes.

£33 0 0 Carr 10/-



LAFAYETTE STEREO AMPLIFIER MODEL LA-324

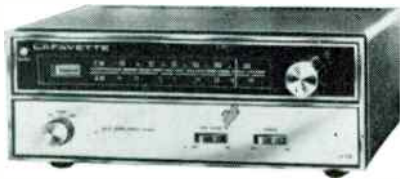
A fine hi-fi amplifier at an extremely low price. New distinctive styling features interesting black and aluminium knobs and switches that contrast neatly with an attractive black and brushed anodized aluminium front panel. With more than adequate power for any room in the home, the LR-324 will drive most speaker systems to maximum volume while maintaining very good frequency response and low distortion. The pleasing sound of the LA-324 will afford hours of tireless enjoyment to even the most critical listener. 18 transistors, 4 diodes and 2 thermistors are incorporated into the advanced circuitry of the LA-324 for an output of 25 watts of stereo power. The LA-324 features a front panel stereo headphone jack; fused right and left channel output transistor for protection against overloads; and a full complement of front panel controls which include concentric Volume/Balance control, Treble and Bass controls, Input Selector for Auxiliary, Tuner, Mag. Phono, and Ceramic Phono. Also included are rocker switches for Mono/Stereo Mode, Remote/Main Speakers, and Power On/Off. Rear panel features stereo inputs for Auxiliary, Tuner and Phono; 2 AC convenience outlets (1 switched, 1 unswitched); Tape Output Jack; and Main and Remote Speaker terminals for 4, 8 and 16 ohm speakers. Its attractive design, only 10 $\frac{1}{2}$ " wide x 3 $\frac{1}{2}$ " high x 8 $\frac{1}{2}$ " deep will complement any home decor. Complete with simulated walnut vinyl-clad metal case. 220/240v. AC. 50/60 Hz with AC power fuse.

SPECIFICATIONS

Power Output: 12.5+12.5 watts r.m.s. at 4 ohms. Frequency Response: 20-20,000 Hz \pm 1 dB. Harmonic Distortion: 0.7% at 1 kHz at 1 watt. Channel Separation: 60 dB at 1 kHz. Input Sensitivity: Auxiliary 250 mV Tuner 500 mV; Phono Mag. 2.3 mV; Phono Ceramic 80 mV. Hum and Noise: Tuner -75 dB; Auxiliary -75 dB; Phono Mag. -60 dB; Phono Ceramic -55 dB. Power Bandwidth: 35-30,000 Hz. Speaker Impedance: 4, 8, 16 ohms. Stereo Headphones: 8 ohms.

18 Transistors, 4 Diodes and 2 Thermistors. Frequency Response 20-20,000 Hz \pm 1.5 dB. Front Panel Stereo Headphone Jack. 2 AC Outlets, 1 switched. Beautifully Styled Front Panel. Attractive Simulated Walnut Vinyl-clad Metal Case.

£24.00 Carr 10/-



LAFAYETTE AM/FM/STEREO TUNER MODEL LT-225

FET Front-End plus 16 Transistors plus 14 Diodes. 3 Gang FM and AM Tuning. Built-In FM and AM Antennas. Automatic Mono/Stereo Switching, plus Stereo indicator Light. 3 μ v IHF Sensitivity. Distinctive Styling. Illuminated Signal Strength Type Tuning Meter fine tunes FM and AM.

Experience superb FM that's virtually free of outside electrical interference! Discover more AM stations across the tuning dial! Has an FET front-end for high sensitivity and minimum noise pickup, plus high quality semi-conductors offering all the advantages expected from solid state circuitry—instant operation, low current consumption, cool operation, and minimum distortion. An advanced feature is the fully automatic FM stereo-mono switching system for automatic reception and identification of stereo programmes. Included is a signal strength tuning meter and balanced flywheel tuning control for more precise station tuning. Other features are: Built-in AM and FM antenna systems for reception of local stations; illuminated slide rule dial; and stereo indicator light. Handsomely styled die-cast aluminium front panel with black metal case. Size: 11" W x 4 $\frac{1}{2}$ " H x 8 $\frac{1}{2}$ " D. For 220/240v AC.

SPECIFICATIONS

FM: 3 Gang Tuning Condenser. Tuning Range: 88-180 MHz. IHF Sensitivity: 3 μ v. Image Rejection: 55 dB. IF Rejection: 80 dB. Capture Ratio: 3.0 dB. Signal-to-Noise-Ratio: -55 dB. Stereo Separation: 30 dB. Antenna: Built-in FM system plus provision for 300 ohm external antenna.

AM: 3 Gang Tuning Condenser. Tuning Range: 540-1605 kHz. Image Rejection: 50 dB. Antenna: Built-in AM system plus provision for external antenna. Outputs: Amplifier: Tape Recorder 1 v at 100% mod.

£45 0 0 Carr 10/-

LAFAYETTE LR-775 AM/FM STEREO TUNER AMPLIFIER

50 watts \pm 1 db of Exemplary Stereo Power. Four-gang FM Tuning Condenser. Fused Output Transistors. Automatic FM Stereo Switching and Stereo Indicator Light. Front and Rear Panel Tape Output Jacks.

This new 50-watt stereo receiver is one of Lafayette's finest with its distinctive styling and advanced solid state circuitry, truly a thing of beauty with top-notch stereo performance. The large tuning panel is black when the power is off, thus blending harmoniously even with the most luxurious decors. When the power is turned on, the tuning meter, FM stereo indicator and AM and FM dials light up and are revealed with the utmost clarity, thus enhancing the attractive appearance of the LR-775 and that of the room in which it performs. Another styling innovation is the aluminium and black knobs which contrast nicely with the gold anodized brushed aluminium panel trim. The LR-775's sensitive FM stereo circuitry will receive even the weakest signals while maintaining excellent fidelity and freedom from distortion. The AM tuner section offers very good selectivity plus a built-in, flexible-mount ferrite loopstick antenna for optimum sensitivity. A meticulously designed amplifier section gives faithful reproduction with more than adequate volume from any source. Output transistors are fused for full overload protection. In addition to the illustrated selected features the LR-775 also has a selector switch for Auxiliary, Phono, FM, MPX Filter, and AM; front and rear panel jacks for tape outputs; rear panel stereo inputs for Magnetic and Ceramic Phono, Auxiliary, Tape Record, and Tape Play; and one switched plus one unswitched AC convenience outlets. Complete with built-in FM antenna and provision for external AM and FM antennas. Power requirements: 220/240v AC, 50/60 Hz. Size: 14 $\frac{1}{2}$ " wide x 4" high x 10 $\frac{1}{2}$ " deep.

£85.00 Carr. 10/-



SPECIFICATIONS

Tuner, FM: 4-Gang Tuning Condenser, 88-108 MHz. IHF Sensitivity: 1.7 μ v. S/N Ratio: 75 db (100% Mod.). Distortion: 0.25% (at 400 Hz 100% Mod.). Capture Ratio: 1.5 db. Stereo MPX Separation: 40 db (400 Hz). Cross-modulation Index: 90 db. Image Rejection: 80 db. Tuner, AM: 3-Gang Condenser, 535-1,650 kHz. IHF External Antenna Sensitivity: 20 μ v. Image Rejection: 55 db.

Amplifier: Power Output: 25 + 25 watts RMS. Frequency Response: 20-20,000 Hz \pm 1 db. Power Bandwidth: 15-30,000 Hz. Harmonic Distortion: Less than 1% at rated output, 0.07% at 1 watt. Hum and Noise: Auxiliary -75 db, Phono (Mag.) -63 db. Input Sensitivity: Phono (Mag.) 2.3mV, (Ceramic) 80mV, Auxiliary 250mV, Tape Monitor 500mV. Output Impedance: 4-16-ohm speaker (main and remote); Headphone Jack Impedance: 8 ohms.

LAFAYETTE LA.750 STEREO AMPLIFIER



- 2 FET'S, 6 Diodes, 16 Transistors, 2 Thermistors
- 40 Watts RMS Power
- Fused Output Transistors
- Front and Rear Tape Output Jacks
- Front Panel Stereo Headphone Jack
- High Filter for Elimination of High-frequency Noises
- One Switched Plus One Unswitched A.C. Convenience Outlets

New, distinctive styling and performance is the accent with the Lafayette LA-750 stereo amplifier. Black front panel contrasting with gold lettering, aluminium and black knobs surrounded by a brushed gold anodized aluminium trim make this unit stand out and complement most any decor. Features outstanding versatility for even the largest of living rooms as well as for a den or bedroom with maximum fidelity and true stereo reproduction. All solid state for the utmost in dependable service with such advanced features as push on/push off switches for main power, loudness, stereo/mono, tape monitor, and high filter... plus all the additional controls found on much more expensive units: separate bass, treble, and volume/balance controls for adjusting the amplifier to suit individual tastes. Speaker mode switch selects main, main plus remote, remote speakers, or stereo headphones. Permits maximum enjoyment of selected Hi-Fi programmes in any predetermined location in your home. The headphone jack on the front panel has audio power at all times but with the speaker mode switch in the "Phones" position, only the headphones receive power, offering truly private listening. Convenient tape output jacks on front and rear panels. Rear panel includes stereo inputs for Auxiliary, Tuner, Phono, Tape Play, and Tape Record. Fused right and left channels for protection against shorts and overloads. Remote and main speaker outputs for stereo sound anywhere in your home without extra amplifiers or switches. One switched and one unswitched a.c. outlet; a.c. power fuse. Power requirements: 220/240V a.c., 50/60 Hz. Dimensions: 12" wide x 9 1/4" deep x 3 3/4" high.

SPECIFICATIONS

Power Output: 20 + 20 watts RMS. **Frequency Response:** 20-20,000 Hz \pm 1 db. **Power Bandwidth:** 15-30,000 Hz. **Harmonic Distortion:** Less than 1% at rated output, 0.07% at 1 watt. **Channel Separation:** 65 db at 1 kHz. **Hum and Noise:** Auxiliary and Tuner -75 db, Phono (Mag.) -63 db. **Input Sensitivity:** Auxiliary 250mV, Phono (Mag.) 2.3mV, Phono (Cer.) 80mV, Tuner and Tape Monitor 500mV. **Output Impedance:** 4-, 8-, or 16-ohm speakers, 8-ohm headphones.

£35.0.0 (£35-00) Carr. 10/- (50p)

LAFAYETTE LT.725 AM/FM TUNER



- 4 IC's — 2 FET's — 18 Transistors — 21 Diodes.
- 1.7 μ V IHF Sensitivity
- Front Panel Tape Output Jack
- Illuminated Signal-Strength Tuning Meter for Normal and Centre Scale Tuning
- Automatic Stereo Switching and Stereo Indicator Light
- Internal FM Antenna plus Flexible Mount AM Loopstick Antenna
- Beautifully Styled Dial that Illuminates with "Power-On"
- 40 db Stereo Separation

The new Lafayette LT-725 establishes pace-setting standards for excellence in performance, flexibility of controls, ease of operation, and convenience. Its distinctive styling will complement any home decor. Yet with all these features it is priced within the budget of the music lover who seeks superior performance and design at a moderate cost. In addition to high performance and unique circuit design, the LT-725 boasts an ultra-modern exterior with space-age styling. The most striking of these is the elegant ebony face-plate with gold embossed lettering; equally impressive when the unit is "On", the logging scale, tuning meter and stereo indicator are illuminated into a soft, rich blend from behind the face-plate. The front panel also features a row of push-buttons for the functions of Stereo/Mono mode, MPX Filter, FM/AM reception, and tuning meter for centre channel tuning and signal-strength indication. There are tape output jacks at the rear and front panels; and rear inputs for external FM and AM antennas. Complete with built-in FM and AM antennas, a.c. fuse holder and grounding post. Output suitable for any quality stereo amplifier. Size: 12" wide x 3 3/4" high x 9 1/4" deep.

SPECIFICATIONS

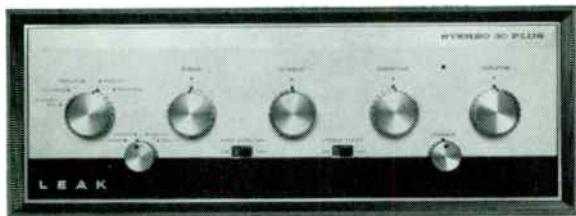
FM Section: 4-Gang Tuning Condenser. **Range:** 88-108 MHz. **Sensitivity:** 1.7 μ V. **Harmonic Distortion:** At 400 Hz. 100% modulation: 0.25%. **Selectivity:** 50 db. **Capture Ratio:** 1.5 db. **Stereo Separation:** 40 db at 400 Hz. **Cross-modulation Index:** 90 db. **Signal-to-Noise Ratio:** 75 db (100% modulation). **Image Rejection:** 80 db. **External Antenna Impedance:** 300 Ohms balanced. **AM Section:** 3-Gang Tuning Condenser. **Range:** 535-1,650 kHz. **Sensitivity (Antenna Terminal):** 20 μ V.

£45.0.0 (£45-00) Carr. 10/- (50p)

**PERSONAL CALLERS WELCOME
AT ALL BRANCHES**

LEAK HI-FIDELITY EQUIPMENT

LEAK STEREO 30 PLUS



The new improved version of Britain's top-selling transistor amplifier, the Stereo 30.

The compactness of the Stereo 30 Plus and its availability in either chassis form for cabinet mounting or in a teak case for shelf-mounting solve any problems about location. Careful detail design makes actual installation child's play.

SPECIFICATION

Power Output:

- 15 watts per channel into 8 ohm loudspeaker (IHFM)
- 10 watts per channel into 15 ohm loudspeaker (IHFM)
- 20 watts per channel into 4 ohm loudspeaker (IHFM)

Total Harmonic Distortion:

- 0.1% for ALL power levels up to 12 watts RMS each channel at 1 kHz into 8-ohm loudspeakers.
- 0.1% for ALL power levels up to 8 watts RMS each channel at 1 kHz into 15-ohm loudspeakers.

Dimensions:

- Chassis Model: 13" x 4½" x 8½" deep.
- Case Model: 13½" x 4½" x 9½" deep.

Chassis Model: £42.19.6 Carr. 10/- (£42.97½ Carr. 50p)

In wood case: £47.19.6 Carr. 10/- (£47.97½ Carr. 50p)

Case alone: £7.0.0 (£7.00)

LEAK STEREO 70



The new big gun from Leak. The amplifier in which distortion dies of fright.

In addition to all the well-known features of Leak amplifiers the Stereo 70 has facilities for a pair of remote loudspeakers, and a stereo headphone socket. There is a DIN record/replay socket on the front panel and two turntables and pick-ups can be connected with front panel selection.

SPECIFICATION

Power Output (both channels sine wave driven):
35 watts RMS per channel into 8-ohm loudspeakers.
28 watts RMS per channel into 15-ohm loudspeakers.

Total Harmonic Distortion:

- 0.1% for all power levels up to 25 watts RMS per channel at 1 kHz into an 8-ohm or 15-ohm loudspeaker.

Dimensions:

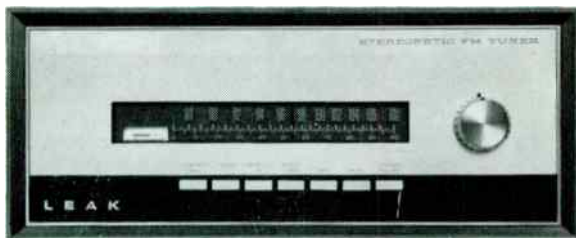
- Chassis Model: 13" x 4½" x 8½" deep.
- Case Model: 13½" x 4½" x 9½" deep.

Chassis Model: £53.19.6 Carr. 10/- (£53.97½ Carr. 50p)

In wood case: £57.19.6 Carr. 10/- (£57.97½ Carr. 50p)

Case alone: £7.0.0 (£7.00)

LEAK STEREOFETIC FM TUNER



The Stereofetic FM Tuner is the aristocratic of the tuner world. With a high-quality transmission it can provide sound reproduction unequalled by even the best LP record.

SPECIFICATION

Frequency Range: 87-108 MHz.

Drift: Less than 25 kHz without AFC.

Dimensions:

- Chassis Model: 11½" x 4½" x 7½" deep.
- Case Model: 12" x 4½" x 9½" deep.

Chassis Model: £50.10.0 Carr. 10/- (£50.50 Carr. 50p)

Case Model: £57.10.0 Carr. 10/- (£57.50 Carr. 50p)

Case alone: £7.0.0 (£7.00)

LEAK TUNER/AMPLIFIER (CASE)



This superbly styled teak case has been designed to accommodate a LEAK transistorised amplifier (Stereo 30 Plus or Stereo 70) and a LEAK Stereofetic FM Tuner.

Assembly requires only a couple of minutes and the result is an integrated tuner/amplifier of outstanding performance.

Please note that the chassis models of the amplifiers and tuners should be ordered for fitting into this case.

Dimensions:

- 25½" x 4½" x 9½" deep.

£8.10.6 (£8.52½)

LINEAR AMPLIFIERS

LINEAR LI/10 HIGH FIDELITY ULTRA LINEAR 10 WATT AMPLIFIER

Compact high fidelity amplifier with integrated preamplifier. 2 high impedance inputs permit simultaneous inputs from gram/radio/or tape and microphone, separate bass and treble controls and equalisation. Spare power for radio tuner. Frequency response 30-20,000 cps \pm 1 db. Output for 3 or 15 ohms. Valves ECC83, ECC83, EL84, EL84, E281. A.C. 200/250 volts 50 cps. 90 watts. Size: 9" x 7" x 5".

Attractive stove gold hammered finish.

£17.0.0. (£17.00)

Chromium handled protective cover 30/- (£1.50)



CONCHORD ULTRA LINEAR 30-WATT AMPLIFIER

Pre-amplifier and tone controls are incorporated. Two separately controlled high impedance inputs for individual or simultaneous use of pick-up, microphone, radio or tape. Size: 13" x 9" x 7½". Input Impedance: both inputs 500K plus 10 pfd. Frequency Response: (excluding rumble filter) \pm 1 dB 20-20,000 cps. Maximum Power Output: in excess of 33 watts. Hum Level: referred to full output and including pre-amp, 73 dB. Harmonic Distortion: (including pre-amplifier) 0.05% measured at 10 watts; 0.1% measured at 20 watts. Damping Factor: 18. Output Matchings: for 3 ohm and 15 ohm speakers from high-grade sectionalised output transformer. AC Mains: 200-250V 50/60 cps.

£22.10.0. (£22.50)

A protective cover with chromium handles available, extra 35/- (£1.75)



DIATONIC 10 WATT ULTRA LINEAR PUSH-PULL AMPLIFIER

Designed for clubs, schools, offices and large halls. Suitable for use with any high impedance microphone and gram or instrument pick-up. Two separately controlled inputs for mixing purposes. Size: 9" x 7" x 6½". Rated Power Output: 10 watts. Maximum Power Output: in excess of 14 watts. Frequency Response: \pm 2 dB 30-20,000 cps. Total Harmonic Distortion: including pre-amp, 0.16% measured at 6 watts. Hum Level: referred to maximum output and including pre-amp, 60 dB. Power Consumption: 90 watts. Output Matchings: for 3 ohm and 15 ohm speakers. AC Mains: 200/230/250V 50 cps.

£17.0.0. (£17.00)

Protective cover available, extra 30/- (£1.50)



L50 ULTRA LINEAR 50 WATT AMPLIFIER

Designed for supplying high quality, high output in schools, theatres and large halls. Suitable for use with any high impedance microphone or instrument pick-up, crystal or ceramic gram pick-up, radio tuner or tape recorder. Size: 14" x 10" x 8". Input impedance: both inputs 500K plus 10 pfd. Frequency Response: \pm 1 dB 20-20,000 cps. Power Consumption: 130 watts. Maximum Power Output: in excess of 50 watts. Negative Feedback: total 28 dB. Harmonic Distortion: (including pre-amplifier) 0.05% measured at 10 watts; 0.2% measured at 30 watts. Hum Level: referred to full output and including pre-amp, 60 dB. Output Matchings: for 3 ohm and 15 ohm speakers from high-grade sectionalised output transformer. AC Mains: 200/230/250V 50/60 cps.

£30.0.0. (£30.00)

Protective cover with carrying handles available, extra 40/- (£2.00)



L45A GENERAL PURPOSE PUBLIC ADDRESS UNIT, 4-5 WATTS

Designed for the home, small clubs, schools, hotels etc. Suitable for crystal or ceramic pick-ups, radio tuners, tape recorders, or high impedance microphones. Size: 7" x 7" x 5". Frequency Response: \pm 3 dB 50-15,000 cps. Hum Level: referred to maximum output and including pre-amp, 68 dB. Power Consumption: 60 watts. Maximum Power Output: in excess of 5 watts. Sensitivity: 28 mV for rated output. Negative Feedback: total 16 dB. Output Matchings: for 3 ohm speaker. AC Mains: 200/250V 50 cps.

£9.10.0 (£9.50)

Protective metal cover available, extra 20/- (£1.00)



LINEAR AMPLIFIERS



LT55 'SOLID STATE' 5-6 WATT AMPLIFIER

Designed for use either as a free-standing unit or fitted in equipment cabinet. Sturdy construction with fitted plastic feet. Facia finish black and silver. Size: $9\frac{1}{4}'' \times 2\frac{3}{4}'' \times 5\frac{1}{4}''$. Output: 6.3 watts IHFM. Instantaneous Peak Power: 12 watts. Frequency Response: 30–20,000 cps -2 dB. Input Facilities: separate sockets for microphone, gram and radio tuner/tape recorder. Output Matching: for loudspeakers of 3–15 ohms impedance. Hum and Noise: -70 dB. Harmonic Distortion: 0.5% at 1,000 cps. Mains Operation: 200/250 AC 50 cps. **£11.0.0. (£11.00)**

Teak wood cabinet available at **£3.10.0 (£3.50)**

PTA15 'SOLID STATE' 15-WATT DUAL PURPOSE AMPLIFIER

A variation of the LTA15 unit with two separately controlled inputs for mixing purposes, plus an additional input socket for high output pick-up heads, etc. Designed for alternative uses; for P.A., or Home/Studio. Frequency Response: 10–40,000 cps -3 dB. Negative Feedback: total 60 dB. Rated Output: 10 watts r.m.s. (continuous) into 15 ohms; 15 watts r.m.s. (IHFM) into 15 ohms. Hum and Noise: -60 dB. Total Harmonic Distortion: less than 0.2% at rated output measured at 1,000 cps. AC Mains: 200/230/250V cps. **£19.0.0 (£19.00)**

Teak finished cabinet available at **£3.10.0 (£3.50)**



LT66 'SOLID STATE' STEREO AMPLIFIER (6 + 6)

A twin-channel version of the LT55 unit. Up to 6 watts output per channel (or 12 watts monoaural). Size: $12'' \times 7'' \times 3\frac{1}{2}''$ (fascia $12\frac{3}{4}'' \times 4''$). Output: 6.3 watts IHFM. Instantaneous Peak Power: 12 watts. Frequency Response: 30–20,000 cps -2 dB. Input Facilities: separate sockets for microphone, gram and radio tuner/tape recorder. Output Matching: for loudspeakers of 3–15 ohms impedance. Hum and Noise: -70 dB. Harmonic Distortion: 0.5% at 1,000 cps. Mains Operation: 200/250V AC 50 cps. **£16.16.0 (£16.80)**

Teak wood cabinet available at **£3.10.0 (£3.50)**

LTA15 'SOLID STATE' 15-WATT AMPLIFIER

For home or studio. Compact size only $9'' \times 3'' \times 5\frac{1}{4}''$. Fitted plastic feet. Robust perspex facia, black and silver. Suitable for cabinet mounting or free-standing. Switched inputs for gram, microphone, tape and radio. Output for speakers with impedance from 3–30 ohms. Frequency Response: 10–40,000 cps -3 dB. Negative Feedback: total 60 dB. Rated Output: 10 watts r.m.s. (continuous) into 15 ohms; 15 watts r.m.s. (IHFM) into 15 ohms. Instant Peak Power Output: 30 watts. Hum and Noise: -80 dB. Total Harmonic Distortion: less than 0.2% at rated output measured at 1,000 cps. AC Mains: 200/230/250V 50 cps. **£19.0.0 (£19.00)**

Teak finished cabinet available at **£3.10.0 (£3.50)**

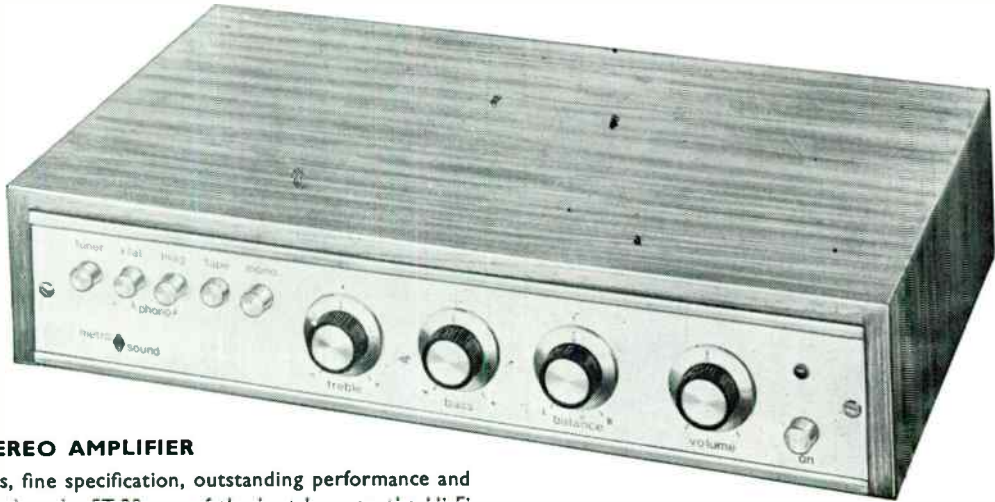


PTA30 30 WATT PUBLIC ADDRESS AMPLIFIER (FULLY TRANSISTORISED)

An ideal unit for vocal or instrumental groups. Suitable for any kind of microphone and instrument pick-up. Also for radio, tape or gram pick-up. Designed for clubs, factories, hotels, schools, public houses and outdoor functions. Output socket for speaker or combination of speakers with impedance between 3 and 30 ohms. Output: 20 watts r.m.s. continuous; 30 watts (music rating). Maximum Instantaneous Peak Power Output: 40 watts. Frequency Response: -3 dB 22 c/s–30 kc/s. Harmonic Distortion: 0.3% at rated output. Hum and Noise: -54 dB. Negative Feedback: 16 dB. Power Consumption: maximum 60 watts. AC Mains: 200/230/250V 50 cps. **£24.0.0 (£24.00)**



METROSOUND AUDIO PRODUCTS



ST.20 STEREO AMPLIFIER

Good looks, fine specification, outstanding performance and low cost makes the ST.20 one of the best buys on the Hi-Fi market. All-silicon transistor giving 20 watts RMS output (10 watts RMS per channel) with inputs for magnetic and crystal cartridge, radio tuner and tape. Teak veneer case with

brushed aluminium front panel and bright chrome trim.
Size: 15½" × 3½" × 10".

£28.16.0 (£28-80) Carr. 10/- (50p)



SLOT STEREO SS.30

A combined Hi-Fi Stereo Amplifier and 8-track Stereo Tape Player. Identical performance, specification and styling to the ST.20 Stereo Amplifier with the addition of immediate press button selection of any one of four recorded programmes from 8-track stereo tape cartridges. Wide frequency response tape reproduction at 3¾ i.p.s. Illuminated tape programme indicator.
Size: 20¾" × 3½" × 10".

£68.1.2 (£68-06) Carr. 10/- (50p)



METROSOUND SPEAKER SYSTEMS MODEL HFS.10

10 watts handling capacity. 8-ohm impedance. Teak finish. Size: 14" × 9" × 7".
As used in the Stereo 10-10 Compact System and available in matched pairs.

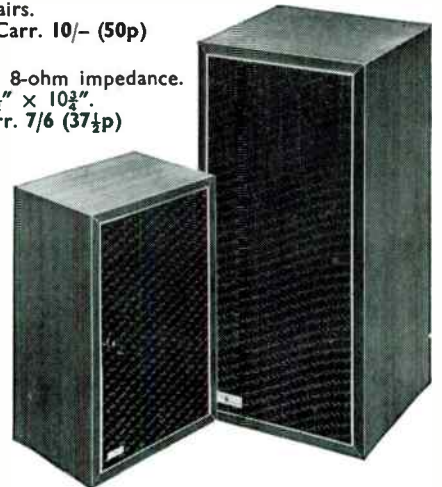
£22.7.6 (£22-37½) pair Carr. 10/- (50p)

MODEL HFS.20

20 watts handling capacity. 8-ohm impedance. Teak finish. Size: 23" × 11½" × 10¾".
£14.16.0 (£14-80) Carr. 7/6 (37½p)

STEREO 10-10 COMPACT SYSTEM

Expertly designed and providing outstanding quality reproduction. Not just another compact system but a true "sound centre" incorporating an all-silicon



transistor amplifier, Garrard 3000 auto-changer and two MetroSound HFS.10 speaker systems. Output 20 watts RMS (10 watts RMS. per channel) Bass, Treble, Volume and Balance controls. Input for tuner. Tape record outlet.

£65.0.0 (£65-00) Carr. 10/- (50p)

NIKKO HI-FI EQUIPMENT



TRM-30 STEREO AMPLIFIER

£29.19.6 Carr. 10/- (£29.97½ Carr. 50p)

Giving really outstanding performance at an amazingly low price.

Features: Function Switch: Tape Head, Phono, Tuner, Auxiliary; Volume Control; Bass Control; Treble Control; Balance Control; Mono/Stereo/Reverse Switch; Tape Monitor Switch; Loudness Control; Rumble Filter; Stereo Headphone Socket; Illuminated On/Off Switch.

Specifications: Power Output at 8 ohms: Music Power 15 watts per channel; RM5 Power 10 watts per channel. Frequency Response: 15–20,000 Hz ± 1 dB (IHF). Harmonic Distortion: Less than 1%. Input Sensitivity: Tape Head 1.8 mV, Mag. Phono 2.8 mV, Tuner 300 mV, Auxiliary 200 mV. Hum and Noise: Better than 60 dB. Channel Separation: Better than 50 dB at 1 kHz, 2 Integrated Circuits, 10 Transistors, 2 Silicon Diodes. 105–120 V/210–240 V. 12" W × 9½" D × 3½" H



TRM-40IC STEREO AMPLIFIER

£39.10.0 Carr. 10/- (£39.50 Carr. 50p)

Compact size, cool running, instant 'warm up', low noise transistors, fully protected circuitry and clean modern appearance.

Features: Function Switch: Tape, Magnetic Phono, Crystal Phono, Auxiliary; Combined Volume Control; L & R Bass Controls; L & R Treble Controls; Balance Control; Mono/Stereo/Reverse Switch; Loudness On/Off Switch; Rumble On/Off Switch; Scratch On/Off Switch; Power On/Off Switch; Tape Monitor Switch; Switched Stereo Headphone Socket.

Specifications: Power Output: IHF Music Power: 22 watts per channel at 8 ohms, 16 watts per channel at 16 ohms; Continuous Sine Wave Power: 15 watts per channel at 8 ohms, 11 watts per channel at 16 ohms. Frequency Response: ± 1 dB 15–20,000 Hz. Harmonic Distortion: Less than 1%. Hum and Noise: Better than 60 dB. Channel Separation: Better than 50 dB at 1 kHz. Input Sensitivity at Rated Power: Tape Head 1.8 mV, Mag. Phono 2.8 mV, Crystal Phono 200 mV, Tuner 300 mV, Auxiliary 200 mV. 14 Transistors, 4 Silicon Diodes. 200–240 V 50–60 Hz. 11½" W × 9½" D × 3½" H.



TRM-50 STEREO AMPLIFIER

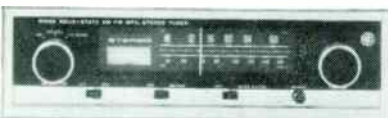
£49.10.0 Carr. 10/- (£49.50 Carr. 50p)

A completely new design both with regards to styling and technical specification.

Features: Speaker Switch: Pair A, Pair B, Pair A and B; Bass Control/Rumble Filter; Treble Control/Scratch Filter; Balance Control; Volume Control; Function Switch: Ceramic Phono, Magnetic Phono Tuner, Tape, Auxiliary; Stereo Headphone Socket; Speaker On/Off Switch; Stereo/Mono Switch; Tape Monitor Switch; Loudness Control; Power On/Off; Indicator Light.

Specifications: Power Output at 8 ohms: Music Power (IHF): 26 watts per channel; RM5 Power: 17 watts per channel. Harmonic Distortion:

Less than 0.3% rated output. Intermodulation Distortion: Less than 0.6% rated output. Frequency Response (IHF): 10–70,000 kHz ± 1.5 dB 20–30,000 Hz ± 1 dB. Power Bandwidth (IHF) –3 dB: 20–30,000 Hz. Channel Separation: Better than 50 dB. Input Sensitivity: Mag. Phono 2.8 mV 50k, Cer. Phono 50 mV 100k, Tuner 500 mV 150k, Aux. 300 mV 100k, Tape 300 mV 100k, Tape Monitor (DIN) 300 mV 100k. Tape Recording Output (DIN): 300 mV. Hum and Noise at Rated Output: Mag. Phono –65 dB, Tuner Tape Aux. –75 dB. Damping Factor: 25 at 8 ohms, 50 at 16 ohms. Tone Controls: Bass: 70 Hz ± 12 dB. Treble: 10 kHz ± 12 dB. High Filter On: 5 kHz –3 dB Cut Off. Low Filter One: 70 Hz –3 dB Cut Off. 6 Nikko Audio Linear IC's, 4 Silicon Power Transistors, 2 Silicon Rectifiers, 4 Silicon Temperature Compensator Varistors. 110–220/220–240 V 50–60 Hz. 13" W × 9½" D × 3½" H.



FAM-12F AM/FM MULTIPLEX TUNER

£58.0.0 Carr. 10/- (£58.00 Carr. 50p)

This superb new high fidelity tuner, giving heat-free operation and immediate response.

Features: Selector Switch: AM, FM, MPX, FM MONO; AFC On/Off Switch; Muting Switch; Filter On/Off Switch; Power On/Off Switch; Tuning Control; Stereo Indicator Light; Signal Strength Meter.

Specifications: FM Section: Range: 88–108 MHz. Sensitivity for 20 dB Quieting: 1.8 µV. For IHFM: 2.5 µV. Image Rejection: Over 45 dB at 1 MHz. Stereo Separation: 40 dB at 1 kHz. Audio Output at 30% Modulation: 0.5 V. AM Section: Range: 530–1,605 kHz. Sensitivity for 20 dB S/N at Dummy Aerial: 10 µV. Image Rejection: Over 50 dB. Audio Output at 30% Modulation: 0.5 V. 21 transistors, 2 FET transistors, 20 diodes, 1 zener diode. 200–240 V 50–60 Hz. 12" W × 3½" H × 10" D.



FAM-14 AM/FM MULTIPLEX TUNER

£82.10.0 Carr. 10/- (£82.50 Carr. 50p)

A new de luxe tuner styled to match the TRM-50 amplifier.

Features: Signal Strength Indicator; Tuning Control; Function Control: AM, Auto/MPX/Mono FM; Headphone Socket; HI/LO Headphone and Illumination Switch; Muting Switch; Filter Switch; Power On/Off Switch; Indicator Light.

Specifications: FM Section: Frequency Range: 88–108 MHz. Sensitivity: 1.8 mV (IHF). Image Rejection: 65 dB at 93 MHz. IF Rejection:

80 dB. Selectivity: 55 dB. Hum and Noise (S/N): 60 dB. Distortion: 0.5%. Stereo Separation: 40 dB at 1 kHz. Capture Ratio: 2.5 dB. AM Rejection: 45 dB. Frequency Response: 15–15,000 Hz ± 1 dB. Muting Sensitivity: 8 mV. Output Level: 1.2 V (100% MOD). 110–120/220–240 V 50–60 Hz. AM Section: Frequency Range: 530–1,650 kHz. Sensitivity: 100 MV/M (IHF). Image Rejection: 45 dB. IF Rejection: 45 dB. Hum and Noise (S/N): 60 dB. Muting Sensitivity: 300 MV/M. Output Level: 0.5 V (30% MOD). 3 I.C.'s, 3 F.E.T.'s, 21 Transistors, 15 Diodes, 1 Zener Diode. 13" W × 9½" D × 3½" H.

MARCONIPHONE UNIT FOUR

A stereo unit system designed and balanced by experts to give you the full rich sound of true stereo at a price you can afford.

LW/MW/SW & VHF RADIO PLUS STEREOGRAM



Marconiphone Unit 4
4404



Marconiphone Unit 4
4404



Marconiphone Unit 4
4404

The wonderfully realistic sound of true stereo record reproduction is achieved by these separate units: amplifier, record playing deck and two speakers. Since the speakers can be moved independently, full stereo is possible in rooms of any size. The units have been carefully matched to give optimum performance. The finish is in teak veneer and the record player unit has an acrylic lid which is removed when operating.

Record Playing Deck

- Garrard 2025TC with 10½" turntable
- 4 speeds
- Cueing device
- Plays 7", 10", 12" records
- Ceramic cartridge with two sapphire styli
- Dimensions (approx.): Height 6¾" over spindle (with lid on 7¼"), Depth 12½", Width 14½"

Tuner Amplifier

- LW/MW/SW/VHF radio tuner
- 18 transistors, 4 diodes
- Tuning, Volume/On-Off, Treble and Bass controls
- Selectors for gram and wavebands
- Stereo amplifier with 3 watts output per channel (speech/music rating) with less than 5% harmonic distortion
- External facilities: Record-playing deck input, tape input and output, LH and RH speaker sockets, AM and VHF/FM aerial sockets
- Dimensions (approx.): Height 5", Width 17", Depth 11¾"

Speaker

Completely enclosed speaker units with 8" × 5" speakers with 15 ohms impedance

- Completely enclosed speaker units with 8" × 5" speakers with 15 ohms impedance
- Dimensions (approx.): Front face 16¾" × 8¾", Depth 7¾"
- Cable tidy supplied. Cable length approx. 11 ft.

OUR PRICE ONLY £66.19.6 (£66.97½) Carr. 10/- (50p)

PHILIPS AM/FM STEREO TUNER AMPLIFIER



MODEL RH 781

Teak veneers, satin-silver trims and sleek design combine with full range of facilities to make this modern tuner/amplifier. Five-waveband tuner divides medium waveband into two ranges for easier station selection. Long and short wavebands also provided. The VHF/FM tuner has three push-button pre-selectors. Push-button function controls tuning meter, decoder for FM stereo reception, semi-rotatable ferro-receptor. 2 × 10 watts music power output. Size: 20¼" × 4¾" × 8¾".

£59.0.0 (£59.00) Carr. 10/- (50p)

PEAK SOUND STEREO AMPLIFIER SA. 10-10



- **Number of Transistors:** 14.
- **Output:** 10 watts r.m.s., in class B, into 8 ohm loudspeaker on each channel (20 watts total). Any speakers from 3-15 ohms impedance may be used.
- **Input Sensitivity:** 50 mV for full output. Suitable for high quality ceramic pick-ups, radio tuners, tape head outputs etc.
- **Frequency Response:** 20-20,000 Hz \pm 1 dB.
- **Cross Talk:** Not measurable due to use of separate volume control on each channel.
- **Signal-to-Noise Ratio:** Appreciably better than 50 dB.
- **Controls:** Separate volume on right- and left-hand channels; bass and treble cut and lift; two position input selector; on/off.
- **Connections:** Via standard DIN pattern sockets.
- **Cabinet:** 12" wide \times 8" deep \times 3" high, with oiled Afrormosia teak ends, black crackle finish metalwork and black and aluminium front panel.
- **Operating Voltage:** 200-250 volts AC, 50 Hz.

The SA. 10-10 is for the listener whose pocket may not always be equal to his taste. The use of advanced manufacturing techniques, some of them exclusive, enables this fine equipment to be offered at extremely competitive price without sacrifice to quality or performance. Since it is not likely that any radical change will be made in sound reproducing systems for many years to come, choice of Peak Sound now means investing in good listening and value that guarantees unlimited pleasure and satisfaction for all who buy it.

PRICES

SA. 10-10 Built ready for use £24.16.8 (£24.83½p)

Or available in kit form:

Amplifier Kit £12.12.6 (£12.62½)

Power Supply Kit £3.15.0 (£3.75)

Cabinet Kit £3 (£3.00)

For ideal listening, a pair of Peak Sound Baxandall Loudspeakers is strongly recommended both for their reasonable price and superb quality.

PEAK SOUND ES/10-15 BAXANDALL SPEAKER KIT

SPECIFICATIONS

Impedance:	15 ohms.
Load Handling Capacity:	10 watts r.m.s.
Speaker Unit:	9" \times 5" elliptical.
Equalisers:	Two special units incorporated within the cabinet.
Frequency Response:	60 Hz to 15 kHz (substantially flat 100 Hz to 10 kHz).
Cabinet:	¾" thick walls and rear panel, ½" thick front panel.
Size:	18" \times 12" \times 9½" (45.6 \times 30.6 \times 24 cm)
Finish:	Oiled Afrormosia, brown stiff silk grille with gold edge trim, silver and black badge.

THE PEAK SOUND ES/10-15 is the designer-approved kit of the sensational loudspeaker designed and described by P. J. Baxandall in the *Wireless World* (Aug. and Sept. '68). The frequency response extends from 60-14,000 Hz (100-10,000 Hz \pm 3 dB). Everything is supplied to specification—



TOTAL COST

£13.8.1
(£13.40)

Also available
ready built
£19.8.6 (£19.42½)

the 18" \times 12" \times 10" afrormosia teak cabinet is cut and drilled for simple assembly; the equalising circuitry is ready for immediate installation. The finished product is completely professional. It will astonish and delight you beyond words.

PEAK SOUND PA/12-15 12 WATT POWER AMPLIFIER MODULE



AVAILABLE READY BUILT

£5.19.6 (£5-97½)

OR IN KIT FORM WITH FULL INSTRUCTIONS, LESS SINK

£3.19.6 (£3-97½)

PA-12-15 MK MODULE KIT POWER AMPLIFIER
(Including board and Heatsink)

£4.17.6 (£4-87½)

ACCESSORIES FOR PA 12/15 AMPLIFIER:

PS/45K Power Pack in Kit Form £4.15.0 (£4-75)

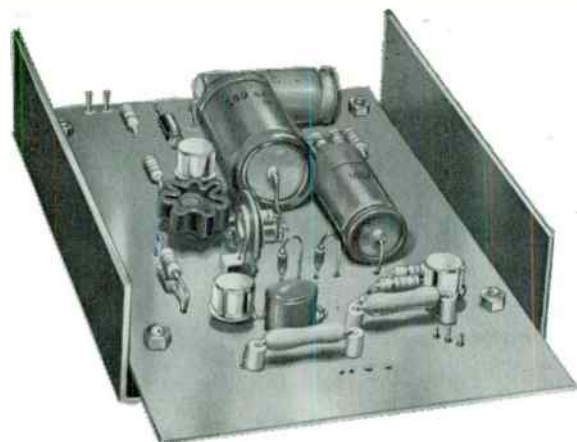
Specially selected high gain output transistors are used in closely matched pairs which together with the high degree of feedback (43 dB) contribute towards the excellent square wave performance and extremely low distortion factor (less than 0.1% at all levels between 150 mW and full output into 15 ohms).

This amplifier is recommended for use with the now famous Baxandall designed ES.10-15 Loudspeakers.

SPECIFICATIONS

Power Requirements:	12 to 50V DC
Loudspeaker Impedance:	8 to 15 ohms
Output Power at 1 kHz:	12 watts r.m.s.
Total Harmonic Distortion at 1 kHz (at 11.5 watts r.m.s.):	0.1%
Frequency Bandwidth:	
For -1 dB at 1 watt:	10 Hz to 45 kHz
For -1 dB at 10 watts:	12 Hz to 18 kHz
Power Bandwidth:	
For -1 dB at 10 watts with total distortion not greater than 1%:	15 Hz to 11 kHz
Sensitivity for 10 watts output:	400 mV
Input Impedance:	30 k ohm
Negative Feedback:	43 dB
Max. output at 12V:	1 watt
Max. output at 40V:	12 watts

PEAK SOUND PA/25-15 25 WATT POWER AMPLIFIER MODULE



PRICE £11.15.0 (£11-75)

PS/68S Stabilised Power Supply Unit for use with ONE or TWO PA/25-15 models £13.10.0 (£13-50)

An ultra high fidelity unit of unique design which employs the latest silicon semiconductors including matched complementary output pairs. Only 3½" x 5" x 1" (87 x 12.7 x 26 mm). The power transistors are mounted between the heat sink and the printed circuit board. Owing to the extremely wide power bandwidth of this amplifier, normal fuse protection of the output stages is inadequate as the fuses cannot act rapidly enough should, for instance, the speaker leads be inadvertently shorted. For this reason individual sensing units are incorporated in the stabilised power supply.

SPECIFICATIONS

Power Requirements:	68 volts
Loudspeaker Impedance:	8-15 ohms
Output Power at 1 kHz:	28 watts into 15 ohms 35 watts into 8 ohms
Total Harmonic Distortion (at 1 kHz at 28 watts):	Less than 0.1%
Power Bandwidth:	
For -1 dB at 20 watts at less than 0.25% distortion:	20 Hz to 20 kHz
Frequency Response at 1 watt:	20 Hz to 120 kHz (-3 dB)
Input Sensitivity for 28 watts:	500 mV
Input Impedance:	500 K ohms
Signal to Noise:	Better than -106 dB

These modules are designed to be used in conjunction with the SCU/400 Pre-Amp and 'Englefield' Cabinet.

PRACTICAL WIRELESS

P.W. DOUBLE 12 AMPLIFIER

Full range of equipment in stock

Cabinet for PW 12 + 12	£2.12.6	*KP.C2 Ton Control Kit	19.6
Pack of Stereo Controls	£2. 0.0	*Heat Sink	7.6
Hardware Kit	£2.10.0	Set of Matrix Boards	18.0
*PA/12-5 Amplifier Kit	£3.19.6	Necessary Cir Kit	5.0
*KP.P2 Pre-Amplifier Kit	£1. 7.0	PS/45K Power Supply Kit	£4.15.0

* N.B.: Two each of these items required.

PEAK SOUND STEREO PREAMPLIFIER MODULE SCU/400



The SCU/400 Stereo Pre-Amplifier Module is a high fidelity unit designed for use with either of the Peak Sound Power Amplifiers (the PA.12-15 or the PA.25-15) or any other high fidelity power amplifier. Built on a printed circuit board measuring $7\frac{1}{4}'' \times 3'' \times 1''$ (185 x 76 x 25.4 mm), the volume, balance, treble and bass controls are all mounted directly into the printed circuit panel, thus overcoming any possibility of problems caused by incorrect wiring layout, i.e. instability or inferior signal to noise. The input selector switch is supplied separately in order that the front panel layout is as flexible as possible. Switches are also supplied for mono/stereo switching and a top cut filter.

The 'Englefield' Cabinet Kit (see next page) is designed to house the SCU/400, together with either a pair of PA.12-15 Power Amplifiers and Power Supply or a pair of PA.25-15 Power Amplifiers and the special stabilised Power Supply with individual protection circuits for each amplifier. Each SCU/400 is subjected to a range of tests to ensure it meets the rigid specifications.

To facilitate both production and constructor usage, edge connectors are provided.

SPECIFICATIONS AS FOLLOWS:

Sensitivity for 400 mV Output

Magnetic Input = 3.5 mV RIAA equalised
 Ceramic Input = 35 mV Lower impedance equalised
 Auxiliary = 100 mV

Distortion of SCU/400 at 2 volt output = 0.1%
 (Distortion does not exceed 0.5% at $4\frac{1}{2}$ volts)

Input Impedance

Magnetic = 100 k
 Ceramic = 100 k
 Auxiliary = 100 k

Noise Factors ('Englefield' Cabinet)

Magnetic = 65 dB
 Ceramic = 65 dB
 Auxiliary = 65 dB

Overload Factors

Magnetic = 29 dB (100 mV)
 Ceramic = 29 dB (1V)
 Auxiliary = 29 dB (3V)

Control

Filter = 9 Khz at 12 dB per octave
 Bass Control = ± 12 dB at 100 Hz
 Treble = ± 12 dB at 10 Khz
 Balance = Fades one channel completely and boosts other by 1 dB

Equalisation

Magnetic = ± 1 dB RIAA
 Ceramic = Specially equalised for level response with high quality ceramic cartridges

Signal to Noise

As used in 'Englefield' Cabinet

Price £15 15 0

ALSO AVAILABLE IN KIT FORM AT
 £12.12.0

PEAK SOUND "ENGLEFIELD" AMPLIFIER



Peak Sound, the manufacturers of Cir-Kit and high quality audio equipment, announce the 'Englefield' Cabinet for their amplifier modules. The cabinet is in kit form and includes all components necessary to complete the construction of a complete stereo amplifier based on the PA.12-15 Power Amplifier Module, the SCU/400 Stereo Pre-Amplifier Module and the PS/45K Power Supply Kit. Alternatively, the PA.25-15 Power Amplifier and PS/68S Power Supply may be substituted.

SPECIFICATION

Dimensions

14" long (355.6 mm), 10" deep (254 mm), 3" high (76 mm)

Performance

(Incorporating 2 x PA.12-15 + SCU/400 + PS/45K)

Power Output (at 1 kHz)

Per Channel 15 ohm load = 13 watts
8 ohm load = 18 watts
3 ohm load = 24 watts

Total Harmonic Distortion

At 1 kHz at 11.5 watts into 15 ohms = 0.1%

Frequency Bandwidth

For -1 dB at 1 watt into 15 ohms = 10 Hz to 45 kHz

Input Sensitivities (for full power at 1 kHz (r.m.s.))

Magnetic Pick-up = 3.5 mV RIAA equalised
Ceramic Pick-up = 35 mV low impedance equalised
Tape Input = 100 mV (linear)
Radio Input = 100 mV (linear)

Signal-to-Noise Ratios

Magnetic Pick-up = -65 dB (S/C)
-57 dB (O/C)
-63 dB (10K)
Ceramic Pick-up = -65 dB (S/C)
-62 dB (O/C)

Tape and Radio Inputs = -65 dB (S/C)
-65 dB (O/C)

Input Overload Factors

Magnetic Pick-up = 100 mV (29 dB)
Ceramic Pick-up = 1V (29 dB)
Radio and Tape Inputs = 3V (29 dB)

Equalisation

Magnetic Pick-up = ±1 dB RIAA
Ceramic Pick-up = Specially equalised for high quality ceramic cartridge

Crosstalk

All Inputs 1 kHz = -50 dB
10 kHz = -50 dB
60 Hz = -45 dB

Controls

Volume, Balance, Treble (±12 dB at 10 kHz)
Bass (±12 dB at 100 Hz)
Filter (9 kHz at 12 dB per octave)
Mono/Stereo On/Off

The above specification is correct when the PA.25-15 Amplifiers, together with the PS/68S Power Supply, are used, but for the power output which is as follows:

Power Output at 1 kHz

Per Channel into 15 ohm load = 28 watts
8 ohm load = 35 watts

PRICES

'Englefield' Amplifier Cabinet	£6. 0.0
(Complete with front panel, knobs, sockets, wire-cut and stripped to length—fuses, edge connectors, etc.)	
2 PA.12-15 Amplifier Modules at £5.19.6 each	£11.19.0
1 SCU/400 Pre-Amplifier Module at £15.15.0	£15.15.0
1 PS/45K Power Supply Kit at £4.15.0	£4.15.0
Total for 12 watt per channel system	£38. 9.0

Alternatively:	
'Englefield' Amplifier Cabinet	£6. 0.0
2 PA.25-15 Amplifier Modules at £11.15.0 each	£23.10.0
1 SCU/400 Pre-Amplifier Module at £15.15.0	£15.15.0
1 PS/68S Stabilised Power Supply Unit at £13.10.0	£13.10.0
Total for 25 watt per channel system	£58.15.0

PEAK SOUND TUNER MODULES AND "ENGLEFIELD" CABINETS



Four pre-aligned and tested modules are available. These are of the very highest quality and are equal in quality and performance to the finest built equipment. Specifications are as follows:

1-FET/3G TUNER

A 3-gang condenser tuner module employing a single dual gate FET and two bipolar silicone transistors. Tuning range 87.5–108.5 MHz. Inputs 75 ohms coaxial and 300 ohms balanced. Sensitivity 2 mV for 30 dB quietening (when used with IFA/4S).

PRICE £11.40

2-FET/4G TUNER

A 4-gang condenser tuner module incorporating two dual gate FET's and a single bipolar silicone transistor. Tuning range 87.5–108.5 MHz. Inputs 75 ohms coaxial and 300 ohms balanced. Sensitivity 1.5 mV for 30 dB quietening (when used with IFA/4S).

PRICE £13.14

IFA/4S I.F. AMPLIFIER

A 4-stage I.F. amplifier embodying 4 silicon transistors and 8 tuned stages. Very high gain circuit. Designed to plug into edge connectors supplied with unit. Facilities for AFC, Meter, etc.

PRICE £10.10.0

IC/MPX MULTIPLEX DECODER MODULES

Built around a unique new integrated circuit containing the equivalent of 30 transistors and 10 diodes. The complete module not only separates the right and left channels of stereo programme material but switches the stereo indicator lamp, reduces inter-station noise whilst tuning, has automatic switching to mono from stereo in low signal areas to reduce noise.

PRICE £14.12.6

PS/12S Stabilised Power Supply for 'Englefield' tuner **£4.10.0**

'ENGLEFIELD' TUNER CABINET

Contains sockets, switches, wire, dial drive (flywheel timing), knobs, attractive front panel and scale, etc. with full instructions for wiring, thus overcoming most problems caused by incorrect layout. This cabinet is professionally designed and equal in appearance to the quality of the modules it contains.

Now available £7.10.0

'ENGLEFIELD' AMPLIFIER CABINET

(See previous page)

Matches the tuner but is designed to house the PA.12-15 modules, together with the SCU/400 stereo pre-amp and PS/45K power supply. The use of edge connectors (supplied in the cabinet kit) simplifies replacement in the unlikely event of trouble as well as facilitating construction. Point-to-point wiring instructions are given, together with knobs, switches, sockets, wire, screws, fuses, etc.

PRICE £6.0.0

HI-FI EQUIPMENT!

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AND NEW PRODUCTS**

ROTEL AUDIO EQUIPMENT

ROTEL 100 AMP 30-WATT (RMS) STEREO AMPLIFIER

Fully transistorised pre-amplifier and main amplifier on a single chassis. Bass and Treble controls. Loudness, Mode and Hi-Filter switches. Tape recording facilities with full monitoring. Fused output stage. Signal source indicator lights. Frequency Response: 25-15,000 Hz +1.5 db at maximum output.

Rec. List Price: £45.10.0

OUR PRICE: £35.10.0 (£35.50) Carr. 10/- (50p)



ROTEL No. 130 16-WATT (RMS) AM/FM STEREO TUNER AMPLIFIER

Field effect transistor FM front end assures better sensitivity and no cross-modulation. Bass and Treble controls, position selector switch, mode switch and AFC switch. FM Sensitivity: 2.5µV IHF. AM Sensitivity: 15µV. Signal Strength Tuning Meter facilitates accurate tuning.

Rec. List Price: £79.0.0

OUR PRICE: £67.0.0 (£67.00) Carr. 10/- (50p)

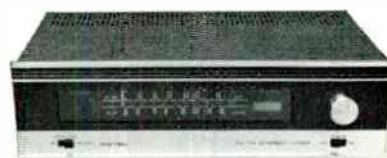


ROTEL 120ST AM/FM STEREO TUNER

Field effect transistor FM front end assures better sensitivity and no cross-modulation. Automatic FM Mono-Stereo switching for better stereo separation. Signal Strength Tuning Meter for accurate tuning and antenna orientation. FM Sensitivity 2.5µV. AM Sensitivity: 300µV meter for 20 db quieting. Tuning and Power control switches.

Rec. List Price: £49.9.2

OUR PRICE: £39.19.6 (£39.97½) Carr. 10/- (50p)



ROTEL RA.840 84-WATT (RMS) STEREO AMPLIFIER

Silicon output transistors, directly coupled circuitry, using neither driver nor output transformers eliminating major causes for distortion. Frequency Response: 6-40,000 Hz +0-1 db at maximum output. Harmonic Distortion: 0.1% at 35 watts at 1 kHz. Hum and Noise: Phono-60 db; Tuner-70 db; Aux-70 db.

Rec. List Price: £75.0.0

OUR PRICE: £61.0.0 (£61.00)

Carr. 10/- (50p)

ROTEL FAX.330 30-WATT (RMS)

AM/FM STEREO TUNER AMPLIFIER

Field effect transistor front end gives better sensitivity and no cross-modulation. Tape Monitor switch, Bass and Treble controls, Hi-Filter, Loudness and Mode switch. FM Sensitivity: 2.5µV IHF. AM Sensitivity: 15µV. Harmonic Distortion: 0.3% (at rated output 1 kHz 8 ohms). Frequency Response: 25-20,000 Hz ±1.5 db (at rated output).

Rec. List Price: £95.0.0

OUR PRICE: £82.10.0 (£82.50)

Carr. 10/- (50p)

ROTEL FAX.550 40-WATT (RMS)

AM/FM STEREO TUNER AMPLIFIER

Silicon output transistors for superior high-quality performance. Field effect transistor front end and four stages IF. Direct coupled circuitry eliminates power loss and distortion. Dual Bass and Treble controls. Hi-Filter, Mode, Loudness and Tape Monitor switches. FM Sensitivity: 2.2µV IHF. AM Sensitivity: 20µV. Harmonic Distortion: 0.2% (at rated output).

Rec. List Price: £119.0.0

OUR PRICE: £104.0.0 (£104.00)

Carr. 10/- (50p)

ROTEL FAX.660 60-WATT (RMS)

AM/FM STEREO TUNER AMPLIFIER

Silicon output transistors, field effect transistors front end. Direct coupled circuitry eliminates power loss and distortion. FM Sensitivity: 2.2µV IHF. AM Sensitivity: 25µV. Frequency Response: 15-35,000 Hz 1.5 db (at rated output). Dual Bass and Treble controls, Hi-Filter and Mode switch. Loudness, Muting and Tape Monitoring switches.

Rec. List Price: £129.0.0

OUR PRICE: £112.10.0 (£112.50)

Carr. 10/- (50p)

ROTEL FAX.88 12-WATT (RMS) AM/FM STEREO TUNER AMPLIFIER COMPLETE WITH LOUDSPEAKERS

Fully integrated AM/FM tuner amplifier with 12 watts RMS output complete with matching full range loudspeaker system. Field effect transistor FM front end for better selectivity and no cross-modulation. Signal strength tuning meter permits accurate tuning and perfect antenna orientation. Sensitivity: FM-2.5µV IHF; AM-15µV. Controls include Bass, Treble, Tone and Balance. Functions are controlled by push-button selector switches.

Rec. List Price: £92.0.0

OUR PRICE: £80.0.0 (£80.00)

Carr. 10/- (50p)

ROTEL STEREO HEADPHONES

Model RH.711: £7.9.6 (£7.47½)

Model RH.600: £4.19.6 (£4.97½)



ROGERS RAVENSBOURNE STEREO AMPLIFIER

25+25-watt Integrated Stereo Amplifier employing silicon transistors throughout. Inputs for Disc, Radio, Tape, Headphones and Auxiliary. Panel sockets for Tape Recorder and Stereo Headphones. Controls include Function, Tape Monitor and Filter with variable "Slope". Available in chassis form or free-standing case. Styling features panel in grained silver printed coffee brown, knobs with spun insets. Case in teak veneers. Overall Dimensions (Case Model): 14½" × 10½" × 5¼".

Case Model £51.5.0 (£51-25) Chassis Model: £47.12.0 (£47-60)
Carr. 10/- (50p)



ROGERS RAVENSBROOK STEREO AMPLIFIER

10+10-watt (15-watt into 8 ohms) Integrated Stereo Amplifier. Inputs for Disc, Radio and Tape. Panel socket for Tape Recorder. Controls include Function, Tape Monitor, switched High-pass and Variable Low-pass Filters, Bass and Treble Controls and Balance Control. Available in chassis form or free-standing in case. Styling as Ravensbourne. Overall Dimensions (Case Model): 14½" × 9¾" × 5".

Case Model: £38.10.0 (£38-50) Chassis Model: £35.10.0 (£35-50)
Carr. 10/- (50p)



ROGERS RAVENSBOURNE FET STEREO FM TUNER SERIES II

A high-performance, fully transistorised FM Tuner, designed primarily as a companion unit to the Ravensbourne Stereo Amplifier, although suitable for use with virtually any high-quality amplifier. Features include: FET Front End; IC IF Strip; Inter-Station Noise Suppression; AFC; Built-in Stereo Decoder; Stereo Beacon; Built-in Dual Voltage Power Supply; Sensitive, Accurate, Centre-zero Tuning Indicator and Station Dial Markers. Styled to match the Ravensbourne Amplifier. Overall Dimensions (Case Model): 12" × 11½" × 5¼".

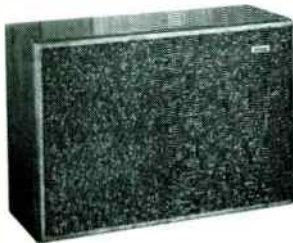
Case Model: £56.0.0 (£56-00) Chassis Model: £51.19.0 (£51-95)
Carr. 10/- (50p)



ROGERS RAVENSBROOK FET STEREO TUNER

A high-performance, fully transistorised FM Tuner, designed primarily for use with the Ravensbrook Stereo Amplifier, but also suitable for use with the Ravensbourne Stereo Amplifier where conditions do not warrant the greater selectivity and refinements provided by the Ravensbourne Tuner. Features include: Three-gang FET Front End; Two IC IF Strip; Inter-station Noise Suppression; AFC; Built-in Automatic Stereo Decoder; Stereo Beacon; Dual-voltage Power Supply; Accurate, Sensitive, Centre-zero Tuning Meter. Styled to match Ravensbrook Amplifier. Overall Dimensions (Case Model): 11½" × 10" × 5".

Case Model: £42.19.6 (£42-97½) Chassis Model: £39.19.6 (£39-97½)
Carr. 10/- (50p)



ROGERS RAVENSBROOK 3-SPEAKER SYSTEM

An entirely new design featuring a unique form of construction and employing an entirely new type of damping material. A specially developed bass unit features a new low resonance highly damped suspension, diecast chassis, very high flux ceramic magnet and rigid diaphragm. Two-high performance tweeters are employed with a very smooth response from 1,500 Hz to beyond 20,000 Hz. Precision cross-over operates at 2,000 Hz and provides a 12 db per octave cut-off. The Speaker System is suitable for either the Ravensbrook or Ravensbourne Amplifiers and, in fact, merits consideration as the final link in any stereo system. Impedance: 8 ohms. Power-handling Capacity: 20 watts, continuous speech and music. Frequency Range: 40-20,000 Hz. Overall Dimensions: 19" × 13" × 7½". Weight: 18½ lb.

£37.10.0 (£37-50) pair, Carr. 10/- (50p)

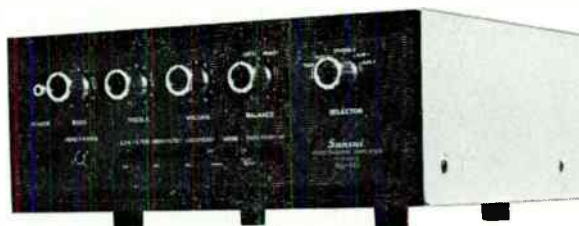


ROGERS WAFER SPEAKER SYSTEM

Only 2½" deep, this design sets a new standard of performance for ultra-compact speaker systems. Ideal where space is at an absolute premium, suitable for wall mounting. Employs a specialised 5" unit with 15,000 gauss ceramic magnet, 3½" treble unit with 13,000 gauss magnet and precision 2.2 kHz cross-over. Frequency Response: 40-16,000 Hz. Power Rating: 12 watts music power. Impedance: 15 ohms. Finish: Solid afromosia with black Vynair fret material.

£17.0.0 (£17-00) Carr. 10/- (50p)

SANSUI EQUIPMENT



STEREO TUNER AMPLIFIERS

MODEL 200	.. .. .	£79 3 7
MODEL 300	.. .. .	£92 7 0
MODEL 350	.. .. .	£113 10 0
MODEL 600L	.. .. .	£145 0 0
MODEL 800	.. .. .	£128 7 6
MODEL 2000	.. .. .	£142 12 6
MODEL 3000A	.. .. .	£164 16 6
MODEL 5000	.. .. .	£182 12 6

STEREO TUNERS

MODEL TU.70	.. .. .	£73 1 1
MODEL TU.555	.. .. .	£68 2 6
MODEL TU.777	.. .. .	£82 18 7

STEREO HEADPHONES

MODEL SS.2	.. .. .	£6 11 4
MODEL SS.20	.. .. .	£14 0 0

STEREO AMPLIFIERS

MODEL AU.70	.. .. .	£64 13 2
MODEL AU.222	.. .. .	£53 9 0
MODEL AU.555	£68 8 2
MODEL AU.777	£98 8 0

PUBLIC ADDRESS AMPLIFIERS

MODEL PA.1000	£72 5 0
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TURNTABLES

MODEL SR.4040BC, Complete	£87 11 9
MODEL ST.4040BC, without Cartridge	£73 10 2
MODEL SR.3030BC	.. .. .	£79 3 7

SPEAKER SYSTEMS

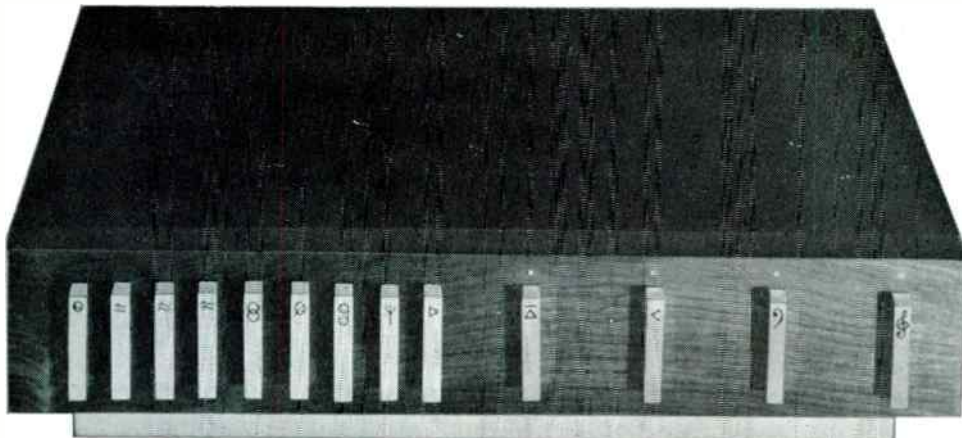
MODEL SP.30	.. .. .	£27 12 10
MODEL SP.50	.. .. .	£38 10 0
MODEL SP.300	.. .. .	£82 17 6

Carriage 10/- extra on all items except headphones

PERSONAL SHOPPERS WELCOME!

LARGE WALK-ROUND SHOPS WITH THOUSANDS OF BARGAINS WHICH WE ARE NOT ABLE TO INCLUDE IN OUR CATALOGUE. OPEN 6 DAYS A WEEK. 9 a.m.—6 p.m. EDGWARE RD. HALF DAY THURS NEW SHOP OPENING IN 1970 AT 27 TOTTENHAM COURT ROAD, LONDON, W.1. WATCH OUR ADVERTISEMENTS FOR OPENING DATE

SINCLAIR "NEOTERIC" INTEGRATED STEREO AMPLIFIER



The Neoteric 60 uses 28 silicon planar and diffused transistors. It has a trip circuit which switches off the output stage in less than one-thousandth of a second should the output be shorted. Adjustable input sensitivities save you from having to change the volume control setting when switching inputs. Noise

and hum levels are almost impossible to measure, let alone hear, and the Neoteric 60 is the one transistor amplifier that will drive an electrostatic speaker at all frequencies and power levels.

The Neoteric 60 is just 2" high, has a solid rosewood front panel and uses computer construction techniques.

TECHNICAL DESCRIPTION

The Neoteric 60 employs modular construction on a single printed circuit board for optimum reliability and serviceability. The pre-amplifier is designed around 5 transistors per channel in place of the usual 3 or 4, to provide excellent overload tolerance. Pure complementary symmetry as opposed to the usual quasi-complementary is used in the output stages. All external connections are located unobtrusively at the rear, facing downwards to permit flush mounting to wall surfaces. The anodised aluminium case with solid rosewood front measures 2½" high, 8½" wide and 9¼" deep.

PERFORMANCE

Power Output per Channel (both channels operating)

30 watts sine-wave IHFM music rating into 8 ohms.

24 watts sine-wave IHFM music rating into 15 ohms.

15 watts sine-wave IHFM continuous into 8 ohms.

12 watts sine-wave IHFM continuous into 15 ohms.

Hum and Noise

(a) With volume set to maximum and tone controls flat:

Hum better than -57 dB on all inputs. Noise better

better than -65 dB on radio and auxiliary inputs.

Noise better than -70 dB on pickup and tape inputs.

(b) At normal volume settings (approx. 1 watt into 15 ohms

for rated input): Hum better than -65 dB on all inputs.

Noise better than -75 dB on all inputs.

(c) At minimum volume setting residual hum and noise is

better than -75 dB and -90 dB respectively.

The above figures are unweighted. When weighted in accord-

ance with BS 3860, hum at maximum volume setting is better

than -70 dB, and at normal volume setting is better than

-80 dB.

Total Harmonic Distortion at 1 kHz (both channels

operating): 0.08% maximum at 10 watts into 15 ohms.

0.1% maximum at 15 watts into 8 ohms.

Permissible Load Impedance (resistive, capacitive or

inductive): 5-15 ohms.

Damping Factor (15 ohm load): 60 at 1,000 Hz.

Frequency Response (at all power levels; tone controls

flat): ±1 dB from 40 Hz to 20 kHz; 3 dB at 20 Hz and

40 kHz. (Power amplifier response ±1 dB from 30 Hz to

100 kHz.)

Tone Control Range (2-stage feedback): Bass: -16 dB to +15 dB at 70 Hz. Treble: -15 dB to +13 dB at 15 kHz.

Filter Networks (switched): Three H.F. (Scratch) filters operating at 10 kHz, 6 kHz and 4 kHz. One L.F. (Rumble) filter providing 12 dB/octave roll off from 50 Hz.

INPUTS (via phono sockets except tape which is 5-pin DIN input/output): Magnetic Pickup: 2.8 mV into 50 Kohm equalised to RIAA Lp. Ceramic Pickup: 2.8 mV into 5 Kohm adjustable to 40 mV into 10 Kohm (80 mV into 10 Kohm, mono) RIAA. Radio: 17 mV into 20 Kohm adjustable to 900 mV into 1 Mohm (1.8V into 1 Mohm, mono). Auxiliary: 2.5 mV into 3.3 Kohm adjustable to 900 mV into 1 Mohm (1.8V into 1 Mohm, mono). Tape: 110 mV into 25 Kohm.

OUTPUTS

Tape Recorder (via 5-pin DIN socket): 110 mV from 10 Kohm source impedance, unaffected by volume, balance or tone controls. Stereo Headphone Socket: (Suitable for 8 ohm or high impedance phones) giving 500 mV into 8 ohms or 8V into 400 ohms. Speaker Terminals: for two separate speaker systems, switchable at amplifier. Mains Outlet: 2-pole, flat pins (U.S. standard), switched by amplifier on/off control.

CONTROLS

Selector Bars: On/off button incorporating indicator light.

Two buttons providing 3 H.F. (Scratch) filter positions.

One button providing L.F. (Rumble) filtering. Mono/Stereo

button. Three buttons for selecting and equalising four

inputs (PU1, PU2, Radio, Auxiliary). Tape Monitor button

noise free) providing tape input selection and off-tape

monitoring during recording.

Rotary Controls: Balance (channels equally balanced when

knob is vertical—constant volume at any setting). Volume

(minimum at 7 o'clock position; vertical for average listen-

ing level). Bass (flat in vertical position). Treble (flat in

vertical position).

Rear Panel: Input sensitivity controls (PU2, Radio and

Auxiliary). Speaker System Switch (System A—System B).

Speaker Type Switch (dynamic—mute—electrostatic). Mains

Voltage Selector and Voltage Range Switch (100-250V AC

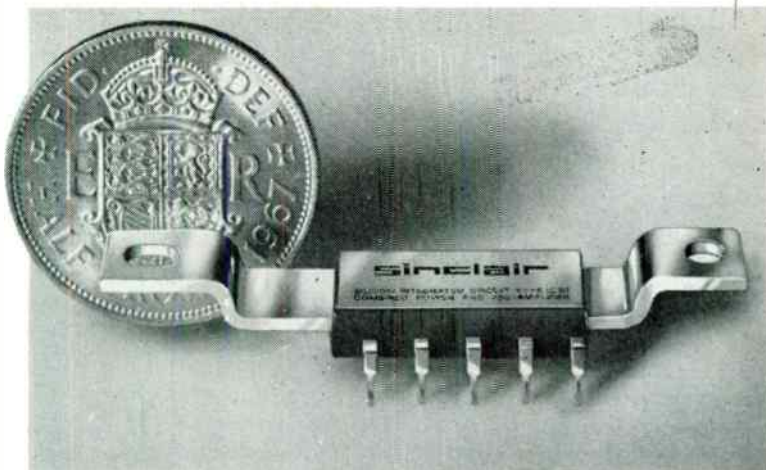
only). Mains Fuse.

£46.0.0 Carr. 10/- (£46.00 Carr. 50p)

SINCLAIR IC.10

Integrated Circuit 10 watt Amplifier

PRICE
50/- INCLUDING
INSTRUCTIONS MANUAL



The Sinclair IC.10 is the world's first monolithic integrated circuit high fidelity amplifier and pre-amp. It has 5 watts r.m.s. output (10 watts peak). The circuit is a specially processed silicon chip, one-twentieth of an inch square by 0.01" thick, containing 13 transistors, 3 diodes and 18 resistors. This, together with its connecting pins, is bonded to the supporting heat sink which runs through the solid plastic package in which the circuit is encapsulated. The resultant product is infinitely more rugged than any amplifier ever made available before to the public. The IC.10 is a true high fidelity amplifier possessing distinct advantages over conventional types. The most important are complete freedom from thermal runaway and very low distortion level. Thus battery operation is perfectly satisfactory. As an audio amplifier, the IC.10 requires only the addition of the usual tone and volume controls. However, it can also be used in many other applications including servo amplifiers, etc., since the circuit is d.c. coupled in both its sections. The manual provides details of an extraordinarily wide range of applications together with all necessary instructions. The Sinclair IC.10 is guaranteed for five years.

SPECIFICATIONS

Output: Class AB. 10 watts peak, 5 watts r.m.s. into 3Ω with 18V supply.

Frequency Response: 5 Hz to 100 kHz ± 1 dB. Total harmonic distortion less than 1% at full output.

Power Gain: 110 dB (100,000,000,000 times) total.

Supply Voltage: 8-18 volts.

Sensitivity: 5 mV. Input impedance adjustable externally up to 2.5Ω for above sensitivity.

Size: 1" x 0.4" x 0.2".

Circuitry: 3 transistors in pre-amp; 10 (including two power output) in power amplifier. Both sections are d.c. coupled, and a high level of negative feedback is applied over all. With a transistor cut-off greater than 500 MHz, the pre-amp can be used as an RF or IF transformer and the whole IC.10 used as a radio receiver without the need to add further transistors.

SINCLAIR 2000 35 WATT INTEGRATED STEREO AMPLIFIER

The 35-watt stereo amplifier provides sufficient output power for all but the largest domestic installations and incorporates every feature you are likely to require. It has sufficient sensitivity for any available cartridge and the specifications place it in the first rank of high-fidelity amplifiers.

Specifications

Output: 35 watts r.m.s. total music power. Load: 3-15 ohms. Total Harmonic Distortion: Less than 0.5% at 1 Kc/s and full output power or any lower power. Frequency Response: 15 Hz to 30 kHz ± 1 dB at 1 watt. Damping Factor: 50 at 1 KH3. Circuit: 18 transistors (12 silicon and 6 germanium) are used in a completely transformerless circuit. 40 dB of negative feedback is applied to the power amplifiers to ensure minimal distortion and very high damping factors. Construction: The entire case and all control knobs are solid aluminium; a form of construction which is both elegant and supremely durable. Power Requirements: 200-250 volts a.c., 50 Hz or 60 Hz (100-120 V a.c. versions are also available and conversion of the 200-250 V version can be made by a simple internal adjustment)

Inputs and Sensitivities

Pickup 1 (Magnetic): 3 mV into 68 Kohm (RIAA). Pickup 2 (Ceramic): 30 mV into 220 Kohm (RIAA). Tape 1 (7½ i.p.s.): 1.5 mV into 100 Kohms. Tape 2 (3½ i.p.s.): 1 mV into 100 Kohms. Auxiliary: 500 mV into 100 Kohms. Radio: 100 mV into 100 Kohms. Microphone: 2.5 mV into 50 Kohms.



Controls

7 inputs (as above) selected by push-buttons. On/Off push-button. Mono/Stereo push-button. Volume Control: Rotary. Balance Control: Rotary. Treble Control: Rotary giving +15 dB to -14 dB at 15 kHz. Bass Control: Rotary giving +13 dB to -15 dB at 70 Hz.

Outputs

Switched mains outlet. Tape output (160 mV). Speaker terminals. Mains terminals.

Size

12" x 6" x 2" (30 x 15 x 5 cms.)

Price: **£23 10 0** Carr 10/-

**SINCLAIR Z.30
20-WATT RMS
(40-WATT PEAK)
POWER
AMPLIFIER**



The Z-30 is a complete power amplifier of very advanced design employing 9 silicon epitaxial planar transistors. Total harmonic distortion is incredibly low being only 0.02% at full output and all lower outputs. As far as we know, no other high fidelity amplifier made can match this specification, no matter what the price. Thus you can be utterly certain that your Project 60 system will do full justice to your other equipment however good it may be. The Z.30 is unique in that it will operate perfectly, without adjustment, from any power supply from 8-35V. It also has sufficient gain to operate directly from a crystal pick-up. So in addition to its use in a high-fidelity system you can use a Z.30 to advantage in your car or a battery-operated gramophone for your children, for example. These, and many other applications of the Z.30, are covered in the Project 60 manual.

SPECIFICATIONS

Power Output: 15 watts RM5 (30 watts peak) into 8 ohms using a 35V supply; 20 watts RM5 (40 watts peak) into 3 ohms using a 30V supply.
Output: Class AB.
Frequency Response: 30-300,000 Hz \pm 1 db.
Signal-to-Noise Ratio: Better than 70 db unweighted.
Distortion: 0.02% total harmonic distortion at full output into 8 ohms and at all lower output levels.
Size: $3\frac{1}{2}'' \times 2\frac{1}{4}'' \times \frac{1}{2}''$.
Input Sensitivity: 250mV into 100k ohms.
Damping Factor: > 500.
Loudspeaker Impedances: 3-15 ohms.
Power Requirements: 8-35V d.c.

**Ready built, tested and guaranteed with Z.30 manual.
£13.96 (£13.97½)**

**SINCLAIR
POWER
SUPPLY
UNITS**



PZ.5 30V un stabilised—
sufficient to drive two
Z.30's and a Stereo 60 for
the majority of domestic
applications.

£4.7.6 (£4.37½)

PZ.6 35V stabilised—
ideal for driving two Z.30's
and a Stereo 60 when very
low-efficiency speakers are
employed.

£6.19.6 (£6.97½)

PZ.8 45V unit for use
with two Z.50's and Stereo
60 (less mains transformer).

£5.2.6 (£5.12½)



**SINCLAIR Z.50
40-WATT RMS
(80-WATT PEAK)
HIGH-FIDELITY
POWER
AMPLIFIER**

The Z.50 has been designed for applications requiring higher output power than the Z.30. The maximum supply voltage is raised to 50V and the output power is 40 watts continuous RMS into 3 or 4 ohms and 30 watts continuous into 8 ohms. The Z.50 is otherwise identical to the Z.30 in design and specification, the increased power being obtained by using much higher current power transistors used well within their rated limits.

The Z.50 is, of course, compatible with the other Project 60 modules, such as the Stereo 60, and since the price is only slightly higher than that of the Z.30, customers may like to consider the advantages of buying two Z.50's for their systems now in case higher power is required later.

Where the full output power is not required the Z.50 may be used with the PZ.5 or PZ.6 but for the full output power the PZ.8 should be used. This unit is a stabilised power supply providing 45V at up to 3 amps. (It is supplied without mains transformer as it is designed for use with a readily available unit. £2.19.6 extra.)

Z.50 Power Amplifier, built tested and guaranteed:

£4.12.6 (£4.62½)

PZ.8 Power Supply Unit: £5.2.6 (£5.12½)

**SINCLAIR STEREO 60
PRE-AMPLIFIER AND
CONTROL
UNIT**



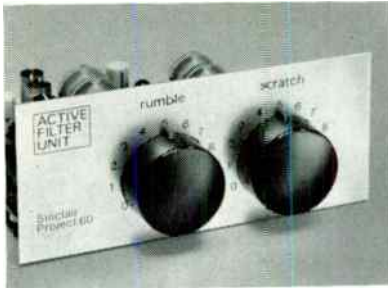
The Stereo 60 is a stereo pre-amplifier and control unit designed for the Project 60 range but suitable for use with any high quality power amplifier. Again silicon epitaxial planar transistors are used throughout and great attention has been paid to achieving a really high signal-to-noise ratio and excellent tracking between the two channels. Input selection is by means of push-buttons and accurate equalisation is provided for all the usual inputs. The tone controls are also very carefully designed and tested.

SPECIFICATIONS

Input Sensitivities: Radio—up to 3mV; Magnetic Pick-up—3mV correct within \pm 1 db on R.I.A.A. curve; Ceramic Pick-up—up to 3mV; Auxiliary—up to 3mV.
Output: 250mV.
Signal-to-Noise Ratio: Better than 70 db.
Channel Matching: Within 1 db.
Tone Controls: Treble +15 to -15 db at 10 kHz; Bass +15 to -15 db at 100 Hz.
Power Consumption: 5mA.
Power Requirements: PZ.5 or PZ.6.
Finish: Brushed aluminium front panel with black knobs.
Mounting: On cabinet front by spindle bushes and adjustable brackets.

Ready built, tested and guaranteed:

£8.19.6 (£8.97½)



ACTIVE FILTER UNIT FOR PROJECT 60

The Sinclair Active Filter Unit is a new addition to our Project 60 range of high-fidelity modules and is designed to complement the other modules in the range.

SPECIFICATIONS

Designed for connection between the Stereo 60 pre-amplifier and two Z.30 or Z.50 power amplifiers.

Employs two Sallen & Key type active filter stages, the first being a rumble (high pass) filter and the second a scratch (low pass) filter. The two stages use complementary transistors to minimise distortion.

Supply Voltage:	15-35V.
Current:	3mA max.
Gain at 1 kHz, filters flat:	0.98 (-0.2 db).
H.F. Cut-off (-3 db):	Variable from 28-5 kHz.
H.F. Filter Slope:	12 db/octave.
L.F. Cut-off (-3 db):	Variable from 25-100 Hz.
L.F. Filter Slope:	12 db/octave.
Distortion at 1 kHz (35V supply):	0.02% at rated output (250mV RM5).
Frequency Response, Flat Position:	35-20,000 Hz—1 db. 25-28,000 Hz—3 db.

Built, tested and guaranteed: £4.17.6 (£4.87½)

SINCLAIR PACKAGE DEALS

2 x Z.30 Amplifiers
1 x Stereo 60 Pre-amplifier
1 x PZ.5 Power Supply
£19.0.0 Carr. 7/6
(or with PZ.6 Power Supply **£21.0.0 Carr. 7/6**)

2 x Z.50 Amplifiers
1 x Stereo 60 Pre-amplifier
1 x PZ.8 Power Supply less transformer
£22.0.0 Carr. 7/6
(Suitable transformer for PZ.8 **£2.19.6 extra**)

★ Add £4.17.6 to any of above package deals for Active Filter Unit.

★ Add £16 to any of above package deals for a pair of Q.16 Speakers.

HALF-PRICE OFFER!



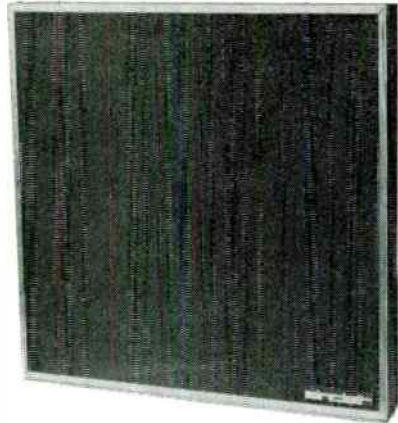
**SINCLAIR
STEREO 25
ORIGINAL**

**PRICE:
£9.19.6**

**OUR PRICE:
£4.19.6 (£4.97½)**

Hi-fi Solid-state Pre-amplifier and Control Unit incorporating Treble, Bass, Volume and Balance controls. Switched input for pick-up (magnetic and ceramic), mike and radio. Will also accept tape head. Operates from 9-12V battery (20V max. 7.5mA). Frequency Response: 25-30,000 Hz ±1 db. Noise Level: Better than -50 db on all inputs. Principally designed for use with Z.12 Amplifier but full instructions are supplied to enable it to be used with any amplifier. Size: 6½" x 2½" x 2¼" overall plus knobs. Brushed and polished aluminium front panel with matching knobs. Supplied brand

SINCLAIR Q.16 LOUDSPEAKER



Presents an entirely new appearance with its attractive teak surround and all-over special cellular foam front chosen as much for its appearance as for its ability to pass all audio frequencies without loss. The Q.16 will handle loading up to 14 watts RMS and presents an 8-ohm impedance to the amplifier output. Frequency response extends from 60-16,000 Hz with exceptional smoothness. A specially designed driver system is used in a sealed and contoured pressure chamber to ensure good transient response at all frequencies. Size: 9¾" square x 4¾" deep from front to back.

£7.10.6 (£7.52½) Carr. 5/- (25p)

SINCLAIR MICROMATIC

The world's most successful miniature radio



(Actual Size)

Considerably smaller than an ordinary box of matches, this is a multi-stage AM receiver meticulously designed to provide remarkable standards of selectivity, power and quality. Powerful AGC is incorporated to counteract fading from distant stations; bandspread at higher frequencies makes reception of Radio 1 easy at all times. Vernier type tuning, self-contained ferrite rod aerial, plug-in magnetic earpiece. Everything, including the batteries, is contained within the attractively designed case.

SPECIFICATIONS

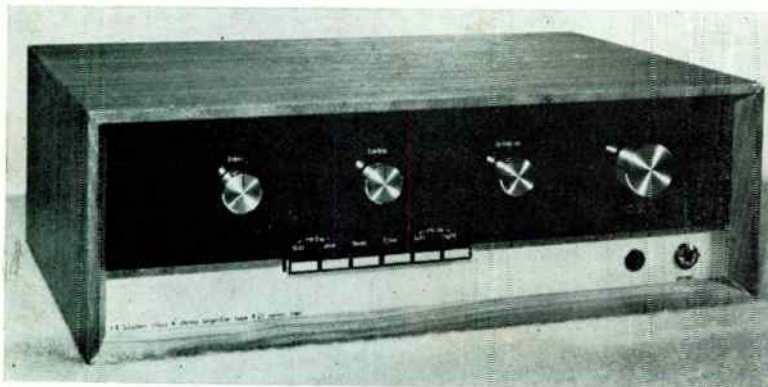
Size: 1½" x 1⅞" x ½". **Weight:** Including batteries—1 oz. approx. Medium waveband tuning with bandspread at higher frequency end. Magnetic type earpiece. Black plastic case with anodized aluminium front panel, spun aluminium dial.

Complete Kit including earpiece, case, solder and instructions in fitted case. **£2.5.0 (£2.25)**

Ready built, tested and guaranteed, with earpiece. **£2.15.0 (£2.75)**

Mallory Mercury Cell RM675 (2 required) each 2/9 (14p)

J. E. SUGDEN CLASS 'A' AMPLIFIERS



A.21 SERIES TWO INTEGRATED AMPLIFIER

The original A.21 amplifier was hailed by many leading authorities as the most significant advance in amplifier design technique for many years.

The new SERIES TWO version incorporates certain improvements to the original model, including increased power output, improved input sensitivities and disc overload factor, headphone socket, and superb new styling.

Power Output: 12 watts RMS per channel into 8 ohms.

Disc Inputs: The magnetic disc input sensitivity of 2.5 mV is adequate for all the latest high-quality low-output cartridges, and facilities are also provided for the ceramic type of pick-up.

Radio Input: Suitable for all high-quality stereo or mono tuners.

Auxiliary Input: The auxiliary facility has the same sensitivity as the radio input allowing the use of an additional tuner or other high-level programme source.

Tape: Full provision is made for stereo record and replay from tape recorders, monitoring facilities also being available.

Filters: A switched low-pass filter is provided to reduce high-frequency distortion present in poor programme material and for reducing undesirable surface noise from old or inferior discs. A built-in high-pass filter is incorporated on disc inputs for reducing motor rumble which may be present.

Function: Normal stereo, mono with two channels paralleled, left channel only or right channel only to both outputs, may be selected at will.

Bass and Treble Controls: Continuously variable wide range controls to compensate for room acoustics, recording differences, etc.

Balance Control: To assist in correcting any unsatisfactory balance between channels due to room acoustics, varying loudspeaker sensitivities, etc.

Headphone Socket: This is provided on the front panel of the amplifier, the loudspeakers being automatically muted when the headphone jack is inserted.

Size: 15½" × 5" × 9".

£49.10.0 (£49.50) Carr. 10/- (50p)

C.51 CONTROL UNIT

This is a fully comprehensive, highly sophisticated control unit of advanced specification using silicon transistors throughout. Designed primarily for use in conjunction with the A.51 power amplifier, it is also eminently suitable for use with any high-quality amplifier.

Disc Inputs: The magnetic disc input is equalised to R.I.A.A. and sensitivity is adequate for all the latest high-quality low-output cartridges. Ceramic type pick-ups may also be fed into this input through a special in-line adaptor (available separately).

Special Input: This facility (also equalised to R.I.A.A.) allows correct matching for certain cartridges, including ceramics, and microphones, etc., through an adaptor on the rear panel. A d.c. source is also provided at the special adaptor socket.

Radio Input: For all high-quality stereo or mono tuners.

Auxiliary Input: Has the same sensitivity as the radio input allowing the use of an additional tuner or other high-level programme source.

Tape Input: Tape monitor input may be accepted without alteration of the main selector feeding programme material to the tape record channels.

Filters: A fine degree of high-frequency filter control is available providing both variable operating point and rate of cut-off (slope). A switchable high-pass filter is also fitted for removing turntable rumble.



Quiet: This facility is provided when low-level listening is desired.

Function: Normal stereo, mono with two channels paralleled, left channel only, or right channel only to both outputs.

Bass and Treble Controls: Continuously variable wide range controls to compensate for room acoustics, recording differences, etc.

Balance Control: Power 16V at 13mA, obtained from A.51 power amp.

Size: 11" × 3½" × 6½".

A.51 STEREO POWER AMPLIFIER



The generous power rating of this amplifier into either 15 or 8 ohms ensures an adequate reserve of power even in the largest of domestic situations. Unconditional stability allows operation into electrostatic loudspeakers without malfunction as well as electro-dynamic loudspeakers of low sensitivity.

SPECIFICATION

Power Output: 25 watts RMS per channel into 8 or 15 ohms.

Total Harmonic Distortion (measured at 1 kHz into 15 ohms): At 20 watts RMS per channel—better than 0.05%; At 1 watt RMS per channel—better than 0.01%.

Frequency and Power Response: ±0.5 db 30–20,000 kHz; ±1.0 db 20–30,000 kHz.

Signal-to-Noise Ratio (10k ohm source): 90 db.

Sensitivity for 25 watts RMS per channel output: 600mV.

Input Impedance: 200k ohms.

Output Impedance: 0.25 ohms.

Load Stability: Unconditional.

General Power Consumption: 100 watts.

Size: 13½" × 8½" × 10".

PRICE A.21/A.51 TOGETHER: £89.10.0 (£89.50) Carr. £1

TELETON STEREO SYSTEMS

MODEL CMS.300 AM/FM/FM MULTIPLEX COMPACT STEREO SYSTEM



A complete audio unit system. Its record playing deck and tuner/amplifier gives a really true rendering of your stereo recordings plus a full appreciation of the stereo broadcasts.

Features: 4-speed stereo auto-changer (85R) with stereo ceramic cartridge. AM/FM/FM-MPX. tuner covering: AM 525-1,605 kHz; FM 88-108 MHz. Amplifier incorporates 20 transistors, 15 diodes, 1 F.E.T. Output Power: 15 watts peak music power; 4.5 watts per channel RMS. Type: 2 x single 6½" P.M. speaker units. Impedance: 8 ohms. Sizes: Amplifier: 19½" (W) x 7" (H) x 17½" (D); Cabinet: 17" (W) x 8" (H) x 16" (D); Speaker (each): 8½" (W) x 12½" (H) x 5½" (D). A.C. 230V.

£79.0.0 Carr. 10/-

MODEL MX.990 20-WATT AM/FM/FM MULTIPLEX TUNER/AMPLIFIER WITH 2 SPEAKERS



Although it has been specially designed for professional level performance, it is still reasonably priced.

The two speaker boxes each contain a heavy-duty, 8" woofer, a 2" tweeter and crossover network—all combining to re-create the fidelity of an actual concert hall.

TECHNICAL DATA

TUNER/AMPLIFIER: Semi-conductors: 21 transistors, 17 diodes, superheterodyne system. **Controls:** AM, FM, FM.AFC, FM Stereo, Phono. **Coverage:** AM 535-1,605 kHz; FM 87.5-108.5 MHz. **Sensitivity:** AM 200µV/m at S/N 20 db; FM 20µV/m at S/N 30 db. **Output Power:** 20 watts peak music power; 15 watts RMS. **Distortion:** Less than 2% at 400 Hz. **Antenna:** AM Ferrite bar; FM 300 ohms symmetric. **Power Source:** 115V or 230V, 50 or 60 Hz. **Power Consumption:** 18 watts. **Tuner/Amplifier Dimensions:** 16½" (W) x 5½" (H) x 9" (D). **Speaker Dimensions (each):** 9" (W) x 14" (H) x 6" (D).

£52.10.0 Carr. 10/-

MODEL 2S60F SOLID STATE AM/FM COMPACT STEREO SYSTEM



An attractive AM/FM system with its own matching speakers.

Features include: ● 2-speed 45 and 33½ r.p.m. stereo record player. ● Low-noise silicon transistors used for high-sensitivity noise-free FM reception. ● Equipped with automatic FM monaural-stereo switching circuit. ● Stereo headphone jack. ● Tape recorder socket. ● Twin speakers size: 10½" x 7½" x 5½". 17 transistors, 15 diodes. **Tuning Range:** FM 87.5-104 MHz; AM 510-1,605 kHz. **Sensitivity:** FM 15µV (30% mod. S/N 30 db); AM 200µV (30% mod. S/N 20 db). **Power Output:** 3 watts + 3 watts (at 1,000 Hz THIDI = 5%). **Frequency Response:** 70-30,000 Hz. A.C. 115/230V.

£56.0.0 Carr. 10/-

TELETON HI-FI EQUIPMENT

MODEL SAQ.501S 65-WATT SOLID STATE STEREO AMPLIFIER



A high-powered amplifier that has been further improved by the introduction of silicon transistors into its circuitry. Controls include Loudness, Scratch Filter, Rumble Filter and Tape Monitor.

TECHNICAL DATA

14 silicon transistors, 6 diodes.

65 watts music power (32.5 watts per channel).

50 watts continuous (RMS), 25 watts per channel.

Frequency Response: 20-20,000 Hz (± 1 db).

Inputs: Mag: 3mV, Tape Head: 3mV, Tape Play: 150mV, Aux: 150mV, Tuner: 150mV.

Outputs: 8 ohms per channel, tape recording and monitoring, 220/240V.

Size: 14½" (W) x 5" (H) x 11½" (D).

£42.10.0 Carr. 10/-

MODEL 7ATI 75-WATT AM/FM/FM MULTIPLEX STEREO TUNER/AMPLIFIER



Teleton's 7ATI is a silicon transistorized AM/FM MULTIPLEX Tuner plus Amplifier packed with a host of modern features to provide the highest performance possible from a compact set of this size. Listed features include:—

- Equipped with complementary SEPP-OTL circuitry using high performance silicon transistors.
- FET (Field Effect Transistor) used in FM front end.
- Automatic FM stereo switching circuit with MPX Beacon.
- Tuning Indicator (Meter) that is easy to read.
- Permits outputs to two sets of stereo speaker systems.
- Direct Tape Monitor Switch for recording/playback operations plus programme monitoring.

TECHNICAL DATA

35 transistors (1 FET), 20 diodes.

Frequency Ranges: FM 88-108 MHz; AM 535-1,605 kHz.

Power Output: 75 watts music power (37.5 watts per channel), 25 watts per channel (RMS) (at 1 kHz T.H.D. = 1%).

Frequency Response: 20-50,000 Hz.

A.C. 115/230V.

Size: 16½" (W) x 4½" (H) x 9½" (D).

£88.0.0 Carr. 10/-

MODEL STQ.204X SOLID STATE AM/FM MPX STEREO TUNER



A de-luxe tuner utilizing silicon transistors throughout the circuitry for noise-free operation. The field effect transistors are used in the tuner pack for highest efficiency and sensitivity in broadcast reception.

Frequency Range: FM 88-108 MHz; AM 520-1,610 kHz.

Auxiliary Circuits: Muting, AFC, MPX-Monitor, 300-ohm balanced input: Ferrite loopstick ant. external. A.C. 110/220/240V.

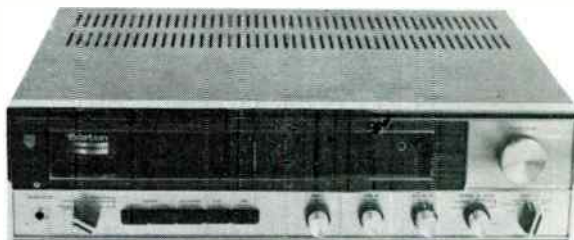
Size: 13½" (W) x 4" (H) x 11½" (D).

Weight: 7.7 lb.

£42.10.0 carr. 10/-

MODEL 10ATI 150-WATT AM/FM/FM MULTIPLEX STEREO TUNER/AMPLIFIER

Teleton decided to do something different, so they devised the 10ATI basically by doubling the output power on its 7ATI model. You get nearly the same compact dimensions of the standard model, but with it is packed every major improvement in modern high-fidelity reproduction. Among its features are:—



- Music power output attains 150 watts (T.H.D. = 1%) due to the use of SEPP-OTL (single-ended push-pull, output transformer-less) circuitry, in complementary connection (ITL), using high-performance silicon power transistors.
- Adoption of FET (Field Effect Transistor) at the FM front end and four-gang variable capacitors, improves the effective selectivity, cross-modulation and image ratio, as well as sensitivity and signal/noise ratio.
- The FM multiplex section is equipped with an electric monaural/stereo automatic selector circuit and a pilot lamp (MPX Beacon).
- The tape monitor switch permits not only recording and playing back tape, but also monitoring in single channel, either left or right.
- Both low-cut and high-cut filters are provided.
- The centre channel output terminal enables three-dimensional reproduction is another monaural amplifier is added.
- A large slide-rule-type tuning meter.
- The FM muting switch.
- Two sets of speaker terminals can be selected optionally by a switch on the front panel.

45 transistors (1 FET), 29 diodes and 3 thermistors.

Frequency Ranges: FM 88-108 MHz; AM 525-1,605 kHz.

Harmonic Distortion: Less than 1% (400 Hz 100% modulation).

Power Output: 150 watts music power (75 watts per channel), 100 watts continuous (RMS), 50 watts per channel.

Frequency Response: 20-50,000 Hz.

Input Sensitivity (for 50 watts output): Phono: 2mV, Tape Head: 2mV, Aus: 100mV, Mic: 2mV. A.C. 150/230V.

Size: 16½" (W) x 4" (H) x 12½" (D).

£130.0.0 Carr. 10/-

TELETON STEREO TUNER AMPLIFIERS

MODEL R.4300 10-WATT AM/FM/FM MULTIPLEX STEREO TUNER/AMPLIFIER



Fitted with silicon transistors throughout its circuitry, it is intended for systems with player-decks using ceramic or crystal cartridges. Its AM/FM tuner section features a fully automatic receiving system, that spotlights stereo broadcasts and provision is made for recording broadcasts straight on to tape.

TECHNICAL DATA

26 transistors, 18 diodes, 4 thermistors.
Frequency Range: FM 88-108 MHz; AM 540-1,600 kHz.
Aerial Connections: For internal 300-ohm balance input. AM internal External terminal.
Output: 10 watts peak music power. 4 watts per channel (RM5)
Output Connections: Stereo tape recording outputs. Stereo speaker outputs 8 ohms. A.C. 110/220V.
Size (approx.) 15" (W) x 4½" (H) x 10½" (D).

£42.10.0 Carr. 10/-

MODEL R4300L. Identical to the above but with additional Long Wave band. £45.0.0 Carr. 10/-

MODEL TFS.50 50-WATT AM/FM/FM MULTIPLEX STEREO TUNER/AMPLIFIER



An exciting adventure in listening pleasure awaits you, with this new stereo tuner/amplifier. You'll appreciate the handsome new chassis design, the clean crisp, sophisticated front panel and the finger-tip control features that this set offers.

TECHNICAL DATA

36 transistors, 1 FET, 23 diodes, 2 rectifiers.
Frequency Ranges: FM 87-108 MHz; AM 530-1,600 kHz.
Aerial Connections: FM 300 ohms balanced; AM Ferrite rod.
Power Output: 50 watts peak music power. 15 watts per channel (RM5).
Frequency Response: 20-20,000 Hz.
Signal-to-Noise Ratio: 60 db.
Tone Controls: Bass and Treble.
Speaker Impedance: 8 ohms. A.C. 115/230V.
Size: 19½" (W) x 4" (H) x 12½" (D).

£59.19.6 Carr. 10/-

MODEL F.2300 12-WATT AM/FM/FM MULTIPLEX STEREO TUNER/AMPLIFIER



TECHNICAL DATA

21 transistors, 17 diodes, 4 thermistors.
Frequency Ranges: FM 88-108 MHz; AM 535-1,605 kHz.
Sensitivity: FM 10µV; AM 150µV/m.
Image Rejection Ratio: FM 45 db; AM 35 db.
Multiplex Separation: 26 db at 1 kHz.
Aerial Connections: FM 300 ohms balanced; AM 4½" Ferrite rod.
Power Output: 12 watts peak music power. 4.5 watts per channel (RM5).
Frequency Response: 30-15,000 Hz.
Tone Controls: Bass and Treble. A.C. 220V.
Size: 16½" (W) x 4½" (H) x 10" (D).

£43.0.0 Carr. 10/-

MODEL CR.55 75-WATT AM/FM SOLID STATE STEREO TUNER/AMPLIFIER



Incorporates automatic FM mono-stereo switching, automatic stereo beacon, built-in AM and FM antenna systems and an outstanding audio section that rivals some of the unit stereo amplifiers are very much higher prices.

TECHNICAL DATA

Frequency Ranges: FM 87-108 MHz; AM 530-1,600 kHz.
Sensitivity: FM 5µV (5/N 30 db); AM 200µV/m (5/N 20 db)
Power Output: 75 watts music power. 25 watts (RM5) per channel.
Tone Controls: Bass and Treble.
Output Connections: 8 ohms per channel. A.C. 110/220/240V.
Size: 22½" (W) x 4" (H) x 9½" (D).

£100.0.0 Carr. 10/-

TRIPLETONE HI-FI EQUIPMENT

SOLID STATE STEREO 8 + 8 Mk. II

Stereo Amplifier	8 watts per channel
Frequency response	± 1.5 dB 30–20,000 c/s
Distortion	Less than 0.2% at 8 watts
Output impedance	15–8 ohms
Inputs for	Disc, Tape and Radio
Output for	Tape recording
Hum and noise	–60 dB per channel
Weight	8 lb.
Size	13" \times 9" \times 3 $\frac{3}{4}$ " high
Case	Teak finish
For Ceramic Cartridges	£29 5 0 Carr. 7/6
For Magnetic and Ceramic Cartridges	£32 5 9 Carr. 7/6



SOLID STATE HI-FI MAJOR

Mono Amplifier	10 watts output
Facility for	Conversion to stereo
Frequency response	± 1.5 dB 30–20,000 c/s
Distortion	Less than 0.2%
Output impedance	15 ohms
Inputs for	Disc, Tape and Radio
Output for	Tape recording
Weight	8 lbs.
Size	11" \times 7 $\frac{1}{2}$ " \times 3 $\frac{3}{4}$ " high
Price	£18 0 0 Carr. 7/6



GEMINI SERIES 3

Stereo Amplifier	4 watts per channel
Frequency response	± 1.5 dB 30–20,000 c/s
Output impedance	2–3 and 15 ohms
Inputs for	Disc, Tape and Radio
Output for	Tape recording
Weight	10 lbs.
Size	11" \times 6 $\frac{1}{2}$ " \times 3 $\frac{3}{4}$ " high
Price	£18 0 0 Carr. 7/6



SOLID STATE STEREO FET F.M. TUNER

Self-powered	For 200/250V AC
Frequency	86–104 Mc/s
Output	Continuously variable
Weight	6 lb.
Size	13" \times 9" \times 3 $\frac{3}{4}$ " high
Case	Teak finish
Price	£35 0 0 Carr. 7/6



TRIPLETONE CONCERTO SPEAKER

Frequency range	40–17,000 c/s
Power handling	10 watts
Impedance	15 ohms 2–3 to order
Finish	Teak
Mounting	Horizontal or vertical
Size	19 $\frac{1}{2}$ " \times 13 $\frac{1}{4}$ " \times 9"
Weight	19 lbs.
Price	£12 17 6 Carr. 7/6

TRIO STEREO AMPLIFIERS and TUNERS



KA.2000

This is probably the most popular stereo amplifier available today. Smoothly extended frequency response gives crisp clarity throughout the audio range (and beyond). Designed to match the KT.1000 in style, this combination is exceptional value for money. Features include ● Magnetic cartridge input ● Separate volume, bass and treble controls ● Loudness, Mono/Stereo, tape monitor switches ● Inputs for magnetic pick-up, tuner, auxiliary 1 and auxiliary 2 ● Built-in overload protection.

SPECIFICATIONS

Output: 16 watts RMS per channel. Output Impedance: 4, 8 and 16 ohms. Distortion: 0.8%. Frequency Response: 20–30,000 Hz ± 2 dB. Signal to Noise: –60 dB (Mag.). Inputs: 2 mV (Mag.), 2 mV (Mag.), 130 mV (Tuner), 130 mV (Aux.). Size: $10\frac{1}{4}'' \times 4\frac{3}{8}'' \times 10\frac{7}{8}''$.

£32.0.0 Carr. 10/–

KT.1000 SOLID STATE AM/FM STEREO TUNERS

This is the latest addition to the Trio range of solid state FM/AM Tuners and is designed to match the KA.2000 in style. Special features include ● FET front end for superior sensitivity ● Automatic Mono/Stereo switching, with indicator ● Multiplex noise filter for removing interference on FM stereo without affecting frequency response ● 220–240 V, 60–60 Hz. Mains operation ● Flywheel tuning ● Built-in ferrite bar antenna.

SPECIFICATIONS

Antenna: 300 and 75 ohms (FM). Sensitivity: 3 μ V (FM), 30 μ V (AM). Distortion: 0.6%. Signal to Noise: Better than –60 dB. Stereo Separation: 30 dB. Size: $10\frac{1}{4}'' \times 4\frac{3}{8}'' \times 10\frac{7}{8}''$. Power: 220–240 V 50–60 Hz.

£45.0.0 Carr. 10/–



£46.0.0 Carr. 10/–

KA.2500

One of the best integrated stereo amplifiers available in the medium price range. Offering every facility to the connoisseur, but remaining simple to operate and attractive in appearance ● Scratch and rumble filters ● Alternate speaker switching ● Tape head input ● Separate bass, treble, volume and balance controls ● Independent control of bass and treble on each channel ● Tape monitoring facilities to din jack or phono sockets ● Automatic transistor protection circuits are among the host of special features to be found in this compact unit.

SPECIFICATIONS

Output: 20 watts RMS per channel. Distortion: 0.5%. Frequency Response: 11–32,000 Hz. Signal to Noise: –60 dB (Mag.). Inputs: 2 mV (Mag.), 2.5 mV (Tape Head), Aux. Tape and Tuner 200 mV. Size $12\frac{1}{2}'' \times 4\frac{1}{8}'' \times 9\frac{3}{8}''$.



£68.0.0 Carr. 10/–

KA.4000

- 120 watts of IHF standard total music power—enough to drive even low-efficiency Hi-Fi speakers.
- The wide power bandwidth of 13–30,000 Hz with very low IM distortion.
- Lever type –20 dB muting switch of quick response for momentary quietness during telephone call, etc.
- 2 dB step type tone controls.
- Blue light indicators for input selector switch.
- Lever type high and low filter switches.
- Pre-amplifier outputs for use with other power amplifier or multi-channel system.
- Main amplifier inputs for the use with other pre-amplifier, tuner and tape recorder with pre-amplifier, and also these inputs enable you to drive the main amplifier directly.
- Speaker terminals for 2 sets of stereo speakers and front panel speaker selector switch (A Speakers, B Speakers, A & B Speakers and Phones.)
- Large Volume/Balance control knob located in centre of front panel.
- Exclusive blow-out proof automatic circuit breaker protects power transistors. (U.S. Pat.)

TRIO STEREO AMPLIFIER



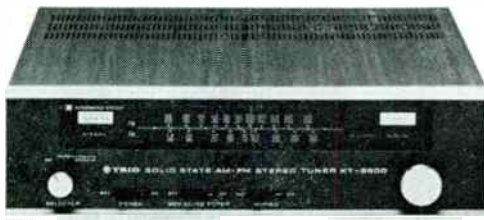
£92.10.0 (£92.50) Carr. 10/- (50p)

KA.6000

SPECIAL FEATURES

- 180 watts of IHF standard total music power . . . enough to drive even low-efficiency Hi-Fi speakers.
- The wide power bandwidth of 10–50,000 Hz with very low IM distortion.
- TRIO's exclusive low level phono inputs for low level output phono cartridges of 2 mV, 0.5 mV or 0.05 mV. (Such as moving coil cartridge, Ortofon SL-15T without transformer, Grado Model "A" without transformer, etc.)
- 2 pairs of MAG input terminals for 2 sets of record players.
- Lever type –20 dB muting switch of quick response for momentary quietness during telephone call, etc.
- 2 dB step type tone controls with tone mode switch.
- Blue light indicators for input selector switch.
- Lever type high and low filter switches.
- Large volume/balance control knob located in centre of front panel.
- Pre-amplifier outputs for use with other power amplifier or multi-channel system.
- Main amplifier inputs for the use with other pre-amplifier, tuner and tape recorder with pre-amplifier, and also these inputs enable you to drive the main amplifier directly.
- Speaker terminals for 2 sets of stereo speakers and front panel speaker selector switch. (A Speakers, B Speakers, A & B Speakers and Phones.)
- Exclusive blow-out proof automatic circuit breaker protects power transistors. (U.S. Pat.)

TRIO AM/FM STEREO TUNERS



£57.10.0 (£57.50) Carr. 10/- (50p)

KT.3500

IC-FET SOLID STATE AM/FM STEREO TUNER

Another new addition to the Trio range of AM/FM Tuners. Using fets in the front end for good selection and 2 integrated circuits in the IF amplifier, greatly improving the signal-to-noise ratio on stereo reception. Features include ● Signal strength meter ● Centre Zero FM Tuning Meter for perfect balance ● Muting switch for silent inter-station tuning ● Automatic stereo switching with indicator light ● Built-in ferrite bar antenna for AM reception ● Flywheel tuning drive for precise station selection.

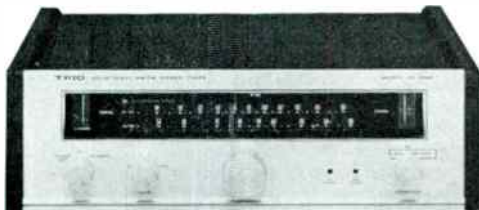
SPECIFICATIONS

Antenna: 300 and 75 ohms (FM). Sensitivity: 1.9 μ V (FM), 15 μ V (AM). Distortion: 0.6%. Signal to Noise: –60 dB. Image Rejection: 70 dB. Stereo Separation: 35 dB. Mains: 220–240 V, 50–60 Hz. Size: 13" \times 4 $\frac{1}{8}$ " \times 12 $\frac{1}{2}$ ".

KT.7000

IC-FET-SOLID STATE AM/FM STEREO TUNER SPECIAL FEATURES

- 3 FETs, 4-gang Tuning Condenser Front-end for superior sensitivity and spurious response ratio.
- 4 ICs and 2 Crystal Filters IF Stages provide greatest selectivity.
- Inter-station Muting Circuit suppresses inter-station noise.
- New FM/AM Signal Strength Meter and FM Zero-centre Tuning Meter with Stereo Indicator for perfect tuning.
- Wide Dial Scale (7 $\frac{3}{4}$ ") and heavy Flywheel for easy tuning.
- Automatic FM Stereo/Mono Mode Silent Switching Circuit with Stereo Indicator.
- MPX Filter for eliminating noise on stereo signals without affecting the frequency response.
- Step-type Output Level Control to supply the proper input to amplifier.
- Luminous Glass Dial.
- 300 ohms balanced and 75 ohms unbalanced Antenna Terminals.
- Handsome Walnut Cabinet.



£112.10.0 (£112.50) Carr. 10/- (50p)

TRIO AM/FM STEREO TUNER AMPLIFIERS

TK20T

The smallest of the Trio tuner/amplifiers, the TK20T has many of the features of its bigger brethren. Field effect transistors are used in the front end to minimise cross-talk and intermodulation effects. 5 IF stages with 4 limiting stages provide excellent selectivity with good signal-to-noise characteristics. Features include ● 3-gang FM tuning capacitor ● Automatic mono stereo switching on FM, with indicator ● All silicon transistors ● Damping factor of 40 into 16 ohms ● Tape monitoring facilities ● Handsome simulated walnut finish cabinet.

Specification. Antenna: 300 ohms (FM). Sensitivity: 2.5 μ V (FM), 30 μ V (AM). Distortion: 0.7% (FM). Stereo Separation: 35 dB (FM). Output: 12 watts RMS per channel. Frequency Response: 25–40,000 Hz. Distortion: 0.8%. Inputs: 2 mV (Mag.), 40 mV (Tape), 140 mV (Aux.). Size: 14 $\frac{3}{8}$ " \times 4 $\frac{3}{4}$ " \times 11 $\frac{1}{4}$ ".



£76.0.0 (£76.00) Carr. 10/- (50p)

TK40LT

A medium and long wave (with, of course, stereo FM) from Trio incorporating all the special Trio features plus long-wave coverage ● 3-gang tuning condenser for FM (2-gang for AM) gives precise tuning throughout the band ● 5 IF stages give superior limiting on good signal-to-noise ratio on FM stereo ● Automatic Mono/Stereo switching with indicator light ● Loudness, mode, noise filter and tape monitor facilities ● Mounted in an attractive simulated walnut cabinet.



Specification. Antenna 300 ohms (FM). Sensitivity: 2.5 μ V (FM). Coverage: 88–108 MHz (FM), 540–1600 kHz (MW), 150–350 kHz (LW). Stereo Separation: 38 dB. Power

Output: 16 watts RMS per channel. Frequency Response: 20–50,000 kHz. Inputs: 2 mV (Mag.), Tape and Aux. 150 mV. Power: 220–240 V, 50–60 Hz. Size: 16 $\frac{1}{2}$ " \times 5" \times 2".

£90.0.0 (£90.00) Carr. 10/- (50p)

TK140X

Special Features

4 Integrated Circuits FM IF Stages ● 3 Field Effect Transistors (FET) 4-gang Tuning Condenser Supersensitive Front-end ● New 'Luminous Dial' ● New Tuning Meter with FM Stereo Indicator ● Solid State Time Switching FM Multiplex Demodulator and Automatic Stereo Mode Silent Switching Circuit ● Unique Keyboard Controls Regulate Inter-station Muting Circuit, Loudness Control, Tape Monitor, Low Filter and High Filter ● Front Panel Stereo Headphone Jack ● Silicon Power Transistor Amplifier ● 300 ohms and 75 ohms FM Antenna Inputs ● (U.S. Pat.) Power Transistor Protection Circuit ● Separate Pre-amp Output and Main Amp Input ● 2 Pairs of Stereo Speaker Output Terminals for Sets of Stereo Speakers and Front Panel Speaker Selector Switch (A Speakers, B Speakers, A-B Speakers, Headphones) ● Centre Channel Output ● Handsome Simulated Walnut Finish Cabinet.



£130.0.0 (£130.00) Carr. 10/- (50p)

TRIO HI-FI EQUIPMENT

KR77 AM/FM STEREO RECEIVER



PRICE £112.10.0 Carr. 10/-

This is the latest tuner/amplifier from Trio. Two integrated circuits in the IF, and fets in the front end give outstanding FM performance. Built-in inter-station muting switch gives silence between stations, makes tuning easy, in conjunction with the tuning meter. Features include ● Low and high filters and loudness and muting switches ● Automatic stereo decoder with indicator light ● Front panel tape input socket ● Alternative speaker switching (or phones).

SPECIFICATION

Antenna: 300 and 75 ohms (FM). Sensitivity: 1.9 μ V (FM), 15 μ V (AM). Distortion: 0.5%. Stereo Separation: 35 dB. Output: 24 watts RMS per channel. Inputs: 2 mV (Mag.), 200 mV (Aux.), 100 mV (Main). Frequency Response: 15-50,000 Hz \pm 2 dB. Power: 220-240 V 50/60 Hz. Size: 16 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 12 $\frac{1}{2}$ ".

SUPREME ONE

"SUPREME ONE" 165-WATT SOLID-STATE MULTI-CHANNEL STEREO AMPLIFIER

New multi-channel amplifier of exceptional fine quality combining all separate amplifiers into one chassis, providing the most exciting and marvellous sounds.

SPECIAL FEATURES

Main Amp.

- So designed to narrow the signal band to the main amplifier greatly lowering IM distortion.
- In this TRIO multi-channel amplifier system, each speaker is connected directly to its own amplifier. The high damping factor is for more effective on the speaker-uniting in better transient response.
- All factors disturbing good quality tones are eliminated. For instance, there is proper crossover frequency and slope.
- It is possible to obtain various tone and sound combinations by adjusting the level of each speaker.
- Frequency response curve from 10 to 100,000 Hz. Power bandwidth response shows widest existing bandwidth.
- The Electronic Crossover Network divides the signals into individual bands for distribution to each specific main amplifier.

Pre-Amp.

- In the pre-amplifier section, there is the important tone control with flat switch, there is the important tone control with flat switch. Its use enables you to enjoy and readily test cartridge specifications speaker quality, recording lever, etc.
- Possibly the most rigid standard world-wide, the equalization response of a declination value is only \pm 0.5% permitting a most natural tone quality.
- A transistor with the lowest noise level for the circuitry. A switch can change the circuit to standard input level of about 2 mV.
- Two switchable filters are used for high- and low-frequency ranges.
- This section also houses a phase-reversing circuit.



SPECIFICATIONS

MAIN AMPLIFIER SECTION

OUTPUT POWER (at 8 ohms):
RMS (0.5% THD) Music
Low-range Amplifier: 33/33 watts 80 watts
Mid-range Amplifier: 23/33 watts 50 watts
High-range amplifier: 15/15 watts 35 watts
Total: 142 watts 165 watts

FREQUENCY RESPONSE:
Low-range Amplifier: 10-100,000 Hz \pm 1 dB
Mid-range Amplifier: 100-100,000 Hz \pm 1 dB
High-range Amplifier: 1,000-100,000 Hz \pm 1 dB

DAMPING FACTOR (each channel):
80 (16 ohms)
40 (8 ohms)

SIGNAL-TO-NOISE RATIO: 90 dB

IM DISTORTION (60 Hz and 7,000 Hz, 4:1): 0.3% at Rated Output

CONTROL AMPLIFIER SECTION

BASS CONTROL: \pm 12 dB at 100 Hz
TREBLE CONTROL: \pm 12 dB at 10,000 Hz
(2 kHz, 5 kHz Turnover roll-off changeable)

EQUALIZATION:
RIAA 20-20,000 Hz \pm 0.5 dB
NAB 20-20,000 Hz \pm 0.5 dB

SIGNAL-TO-NOISE RATIO:
Phono 60 dB
Phono (Low) 50 dB
Tape HD 60 dB
Tuner 90 dB
Aux 90 dB

FREQUENCY RESPONSE: 20-50,000 Hz \pm 1 dB

FILTER SECTION

LOW FILTER: 12 dB/oct 40 Hz, 80 Hz changeable
HIGH FILTER: 12 dB/oct 6,000 Hz, 9,000 Hz changeable

ELECTRONIC CROSSOVER NETWORK
LOW CROSSOVER: 12 dB/oct 400 Hz, 800 Hz changeable
HIGH CROSSOVER: 12 dB/oct 2,500 Hz, 5,000 Hz changeable

POWER CONSUMPTION: A.C. 220-230 V, 50/60 Hz, 45 watts (No Signal), 200 watts (at Full Power)

DIMENSIONS: W 16qS, H 6 $\frac{1}{2}$ S, D 12S

Price £257.10.0

WHARFEDALE 100.1 MULTIPLEX RECEIVER



A full 35 watts continuous into each stereo channel is just one of the new features. The fully transistorised Wharfedale 100.1 thereby becomes the most powerful receiver made in Britain, accompanied by an outstandingly low distortion figure of only 0.1% at full power.

£110.0.0 (£110.00) Carr. 15/- (75p)

SPECIFICATION:

AM TUNER SECTION

Frequency Range: 510-1,650 kHz.
150-275 kHz.

Aerial: Built-in Ferrite rod or external.
Sensitivity: 25µV for 20 db signal-to-noise ratio.

FM TUNER SECTION

Frequency Range: 87.5-108 MHz (Fitted stereo indicator light.)
Sensitivity: 1-2µV (75 ohms aerial input) to give 30 db signal-to-noise ratio at 75 kHz deviation to IEC 91

Stereo Crosstalk: Better than 35 db at 1 kHz.
Distortion: Less than 0.5% for 75 kHz deviation.
38 kHz and 76 kHz residual: Better than -40 db (0 db = 75 kHz deviation).

AUDIO AMPLIFIER

Sensitivity for 35-watt Output:

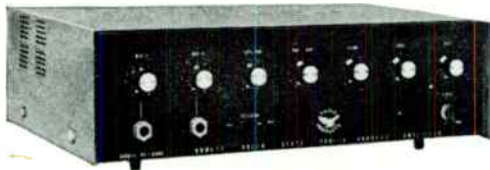
Tape and Auxiliary: 100mV at 50k ohms.
Dis (Magnetic): 3.5mV at 1 kHz at 68k ohms (RIAA equalisation).
Disc (Ceramic): 20mV at 33k ohms (equalized).
Music Power (IHFM): 100 watts into 8 ohms.

Continuous Power: 35 watts + 35 watts RMS into 8 ohms.
35 watts + 35 watts RMS into 4 ohms.
25 watts + 25 watts RMS into 15 ohms.

Frequency Range: 12.5-50,000 Hz ±3 db.
Distortion: At any power up to 35 watts per channel into 8 ohms less than 0.07%.
At any power up to 35 watts per channel into 4 ohms less than 0.14%.
At any power up to 25 watts per channel into 15 ohms less than 0.05%.
Weighted noise level (gain control at minimum) -90 db (0 db = 35 watts).
Weighted noise level (disc input, gain control at maximum) -75 db (0 db = 35 watts).

FACILITIES

Low Pass Filter: -6 db at 7 kHz.
Balance Range: 12 db.
VHF mute.
Local and remote speaker switching.
Tape socket.
Headphone socket.
Power Supply: 110/117/127V, 220/240V 50-60 Hz.
Dimensions: 17.6" x 4.3" x 12.6".



EAGLE TPA.160 P.A. AMPLIFIER

Most powerful amplifier in the Eagle stable, the TPA.160 will deliver its maximum output all day long without stress or strain. As well as two microphone inputs, two fade controls are fitted so that two turntables and tape or magnetic input, or a combination of these can be selected. Master volume, treble and bass controls are also fitted.

Output Power: 160 watts peak. Frequency Range: 50-30,000 Hz. Inputs: Mic 1: 2mV at 600 ohms; Mic 2: 2mV at 600 ohms; Aux 1 and 2: 300 mV at 50,000 ohms; Magnetic: 3mV at 50,000 ohms (RIAA); Tape: 2mV at 50,000 ohms (NAB). Signal-to-Noise Ratio: Better than 50 db. Output Impedance: 4, 8, 16 and 60 ohms and 100V line output. Dimensions: 400 mm x 120 mm x 300 mm.

£80.0.0 (£80.00) Carr. 10/- (10p)



D.J.105S 30 WATT P.A. AMPLIFIER

Specifically designed to meet the demand for a high-quality unit capable of sustaining high output levels without fear of break-downs. The unit features all-silicon transistors throughout, of modular construction with short, open and thermal overload protection for added reliability. Four channel mixing facilities each with separate inputs and volume controls, make this amplifier suitable for use in clubs, factories, discotheques, etc.

Styled with a silver and black front panel and is housed in attractive metal cabinet covered in black vinyl.

SPECIFICATION

Power Output: 30 watts RMS ±1 db at 8 ohms. Frequency Response: 20-20,000 Hz ±3 db. Harmonic Distortion: Less than 1% at 25 watts RMS. Signal-to-Noise Ratio: Better than -65 db. Speaker Impedance: 8-16 ohms. Inputs: Mic 1 and 2: 8mV at 50k ohms; Aux 3 and 4: 100mV at 1M ohm. 50- or 60-ohm Mic inputs available at extra cost. Bass Control: Variable 20 db at 100 Hz. Treble Control: Variable 20 db at 10 kHz. Size: 11½" x 5" x 6". Fuses: A.C. 1.5A (B.S.); D.C. 1A (B.S.). Speaker Short Fuse: 2A (B.S.).

£33.12.0 Carr. 7/6

EAGLE TPA.30 MAINS/MOBILE PA AMPLIFIER



Compact, all-transistor PA amplifier designed for versatility and reliability. Operates on 240 V a.c., or 12 V d.c. Output of 20 watts covers most needs and applications. Input and mixing facilities for microphones, tape recorder, record player, and radio. Complete with mobile mounting bracket.

Output Power: 20 watts peak. **Frequency Range:** 50–18,000 Hz. **Inputs:** Mic 1, 2 mV at 50,000 ohms; Mic 2, 2 mV at 600 ohms; Aux, 200 mV; Phono, 200 mV. **Signal to Noise:** Better than 50 dB. **Output Impedance:** 4, 8, 16 ohms. 25 and 70 V line. **Operating Voltage:** 12 V d.c. or 240 V a.c. **Dimensions:** 240 x 100 x 190 mm.

£27.15.0 Carr. 10/-

EAGLE TPA.40 MAINS/MOBILE PA AMPLIFIER



Latest transistor techniques give one of the best output to size ratios in PA. Operates on 240 V a.c. or 12 V d.c. for mobile with 40 watts power output. Full input mixing for two mikes and aux/phono, with master tone control. Excellent performance quality and long-life reliability.

Output Power: 40 watts peak. **Frequency Range:** 50–18,000 Hz. **Inputs:** Mic 1, 2 mV at 50,000 ohms; Mic 2, 2 mV at 600 ohms. Aux/Phono: 300 mV at 50,000 ohms. **Signal-to-Noise Ratio:** Better than 50 dB. **Output Impedance:** 4, 8 and 16 ohms. 25 and 100V line output. **Operating Voltage:** 220–250 V a.c. or 12 V d.c. **Dimensions:** 241 x 102 x 190 mm.

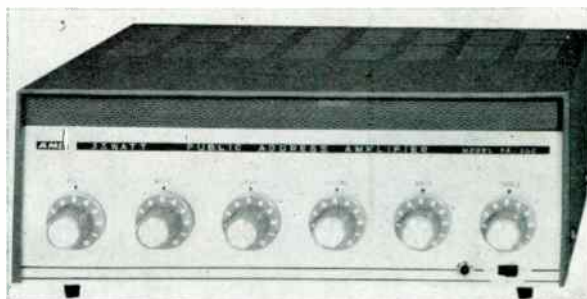
£35.0.0 Carr. 7/6

ADASTRA 'CENTURION' 100-WATT AMPLIFIER

Specially designed solid-state British-made amplifier, intended to cater for most demanding of requirements—discotheques, clubs and halls, public address and relay systems, high power audio installations. Presented in black grained leathercloth covering a robust wood case with double carrying handles, metal corner protectors and rubber feet. Control functions clearly indicated on a brushed silver and black facia with matching metal knobs.

Power Output: 4 ohm load: 100 watts RMS 140 watts peak; 8 ohm load: 60 watts RMS 70 watts peak; 15 ohm load: 35 watts RMS 35 watts peak. **Sensitivity:** Input 1–1 mV –3V. Also R.I.A.A. Switch; Input 2–1 mV –3V. Also Bass Cut switch. Input 4–100 mV. **Frequency Response:** 20–20,000 Hz within 1 dB. **Hum and Noise:** 70 dB. **Mains Supply:** 200–250 V a.c. 50–60 Hz at 1 A. Fused at 3 A. **Power Outlet** on rear, 2A. **Controls:** individual Volume/Gain for Inputs 1, 2, 3 and 4. Master Controls—Treble,

EAGLE PA.539 PA AMPLIFIER



A new updated version of Eagle's best-selling PA amplifier, now with 50 watts output on 240 V a.c. mains. Two microphone inputs and one tape or radio input, each with individual gain control. Separate bass, treble, and volume controls. Very popular for schools, clubs, restaurants, amusement arcades, and the like. First-class value.

Output Power: 50 watts peak. **Frequency Range:** 30–15,000 Hz. **Inputs:** Mic 1, 3 mV at 50,000 ohms; Mic 2, 3 mV at 50,000 ohms. **Signal to Noise:** Better than 50 dB. **Output Impedance:** 8, 16, 250 ohms and 100 V line. **Dimensions:** 320 x 216 x 254.

£34.12.6 Carr. 10/-

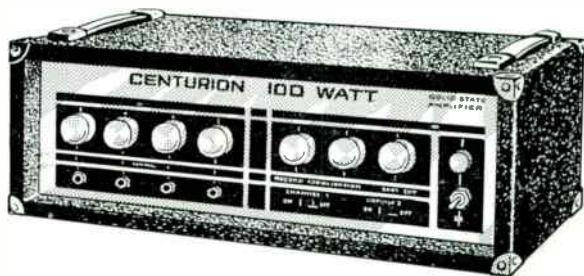
EAGLE TPA.80 PA AMPLIFIER



Power for all purposes! Magnificent 80-watts output gives utmost clarity at all levels—indoors, outdoors, discotheques, church fêtes, jazz festivals. Independent mixing controls for two microphones and aux/phono inputs allow for any combination, undisturbed by adjustment of master volume, bass, and treble. Fully transistorised for reliability.

Output Power: 80 watts peak. **Frequency Range:** 50–20,000 Hz. **Inputs:** Mic 1, 2 mV at 50,000 ohms. Mic 2, 2 mV at 50,000 ohms. Aux/Phono: 300 mV at 50,000 ohms. **Signal-to-Noise Ratio:** Better than 50 dB. **Output Impedance:** 4, 8 and 16 ohms. 25 and 100 V line output. **Operating Voltage:** 220–250 V a.c. **Dimensions:** 368 x 114 x 304 mm.

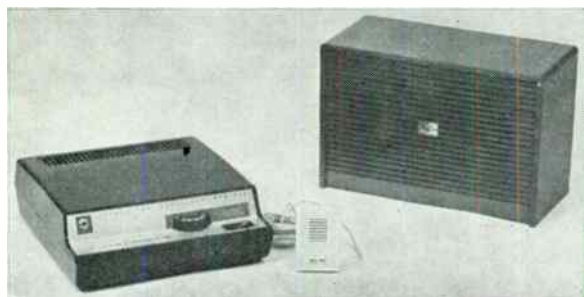
£54.0.0 Carr. 7/6



Bass and Volume. R.I.A.A. Record Equalisation Switch (1). Bass Cut Switch 6 dB/Octave below 300 Hz (2). Power ON/OFF with indicator lamp. **Dimensions:** 18" x 10" x 6". **Weight:** 30 lbs.

£82.0.0 Carr. 15/-

EAGLE MPA.258 PAGING SYSTEM



Complete microphone, amplifier, speaker. Especially suitable for the average-sized garage or warehouse—saves keeping customers waiting on the telephone or in the reception area. Pays for itself in a few weeks through increased efficiency.

Amplifier. Output Power: 5 watts peak. **Frequency Range:** 100–12,000 Hz. **Mic Input:** 3 mV at 50 K ohms. **Aux Input:** 200 mV at 250 K ohms. **Dimensions:** 180 × 70 × 210 mm.

Speaker. Diameter: 180 × 125 mm. **Power Handling:** 6 watts peak. **Impedance:** 8 ohms. **Dimensions:** 230 × 155 × 105 mm.

Microphone. Impedance: 50 K ohms. **Response:** 100–10,000 Hz. **Average Output:** 3 mV.

£24.2.6 Carr. 7/6

EAGLE ER.307 PUBLIC ADDRESS MEGAPHONE



The lightest and most portable of all public address devices. Self-contained, battery-powered, 16 watts output—ideal for a wide variety of purposes: public meetings, crowd control, sports meeting marshals, emergency services, traffic control. Eliminates ordinary megaphones, supersedes shouting!

Output Power: 16 watts peak. **Voice Range:** 0.8–1.0 Km. **Power Supply:** 8 × U.11 or equivalent. **Dimensions:** 370 × 210 mm.

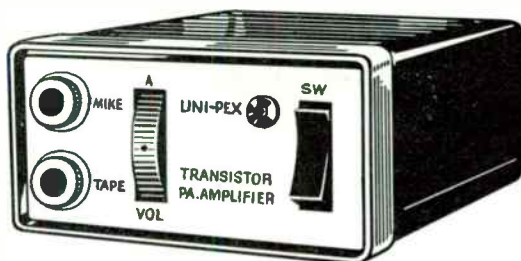
£37.10.0 Carr. 7/6

NT. 100 12V PUBLIC ADDRESS

A most compact P.A. amplifier designed to be fitted under car dashes, on boats, caravans, etc. Input facilities include tape, microphone, whilst the 10 watts output is switchable to 4, 8 and 16 ohms impedance. Fully transistorised printed circuit, isolated earth, fused, etc. Supplied with mounting brackets, screws, instruction booklet.

Circuit: 4 transistor, 1 diode. **Power Output:** 10 watts (rated), 15 watts max. (U.S.). **Frequency:** 250–7,000 Hz. **Output Impedances:** 4, 8 and 16 ohms. **Power:** 10–16 V d.c. **Inputs:** Mic, Magnetic and Crystal Tape. **Radio or Tape Output. Controls:** Volume; ON/OFF switch. **Lamp. Dimensions:** 4" × 2" × 5". **Weight:** 1½ lbs.

£11.19.6 Carr. 7/6



PA. 2000 PUBLIC ADDRESS MAINS/BATTERY



This all-transistor amplifier operates from a.c. mains or 12 V d.c. sources (negative or positive earth). It is compactly styled in grey and gold and is presented complete with removable chrome mounting bracket. Inputs can take 2 microphones, 1 music and auxiliary positions, whilst output is designed for 4, 8, 16 ohm, 25 V and 70 V line systems. Inputs have separate controls on the front.

Circuit: 6 transistor printed circuit. **Power Output:** 20 watts (music). 10 watts RMS. **Frequency:** 200–10,000 Hz. **Output Impedance:** 4, 8, 16 ohms, 25 and 70 V line. **Signal-to-Noise Ratio:** Better than 50 dB. **Power:** 230–250 V a.c. and 12 V d.c. (switched). **Inputs:** Mic. 1–2 mV

600 ohms, 2–2 mV 50 K ohms, Aux. 200 mV, Music 200 mV. **Controls:** Mic. 1 Volume; Mic. 2 Volume; Aux. and Music Volume; Tone; Power ON/OFF, Lamp. **Dimensions:** 9½" × 7¼" × 3¾". **Weight:** 7¾ lbs.

£24.0.0 Carr. 7/6



EAGLE SC.5 PA SPEAKER

An outstanding combination of reflex horn and driver unit suitable for car mounting. Matched with Eagle PA amplifiers, delivers wide angle reproduction of high quality. Weatherproof, waterproof, shockproof, and as tough as a speaker can be. Suitable for indoor use also. Top value for money.

Power Handling: 10 watts peak. **Frequency Range:** 300–5,500 Hz. **Impedance:** 8 ohms. **Dimensions:** 210 × 135 mm.

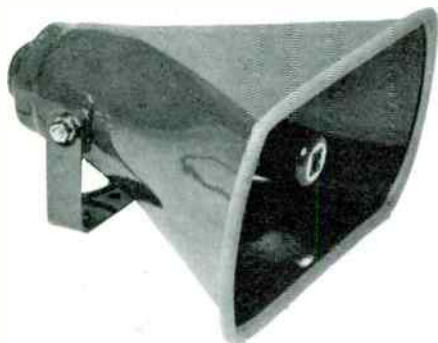
£4.17.6 (£4.87½) Carr. 7/6 (37½p)

EAGLE SC.10F PA SPEAKER

Ideal for applications where powerful and costly equipment is not justified. This 5-watt PA speaker is sturdily built, gives excellent reproduction, but occupies little space—perfect for sound reinforcement in small halls. Represents top quality at a very modest price.

Power Handling: 5 watts peak. **Frequency Range:** 350–5,500 Hz. **Impedance:** 8 ohms. **Dimensions:** 160 × 150 mm.

£8.10.0 (£8.50) Carr. 5/- (25p)



EAGLE SC.15B PA SPEAKER

For sports meetings, fairs, demonstrations, and all outdoor events, this PA speaker will provide the power. Good quality reproduction, high efficiency, easy mounting, and the assurance of trouble-free service over many years. This is a high-powered heavy-duty speaker suitable for all conditions.

Power Handling: 15 watts peak. **Frequency Range:** 220–5,500 Hz. **Impedance:** 8 ohms. **Dimensions:** 390 × 215 mm.

£17.17.0 (£17.85) Carr. 7/6 (37½p)

EAGLE CS.12 and CS.25 PA SPEAKERS

These new additions to the Eagle range are the best-looking PA speakers on the market. CS.12 incorporates four speakers, and CS.25 no fewer than seven. When used above head height, taper is reversed, ensuring directional sound for best presentation. Harmonise with dignified architecture as in churches, schools, conference halls, etc.

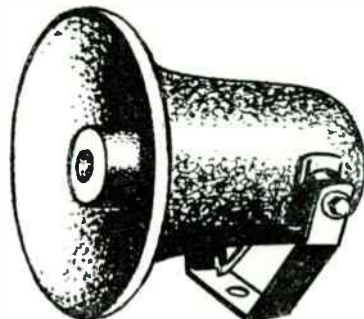
CS.12 **Power Handling:** 24 watts peak. **Frequency Range:** 60–10,000 Hz. **Impedance:** 16 ohms. **Number of Speakers:** 4. **Dimensions:** 760 × 200 × 150 tapering to 115 mm.

£17.5.0 (£17.25) Carr. 7/6 (37½p)

CS.25 **Power Handling:** 50 watts peak. **Frequency Range:** 60–10,000 Hz. **Impedance:** 16 ohms. **Number of Speakers:** 7. **Dimensions:** 1,200 × 200 × 180 tapering to 140 mm.

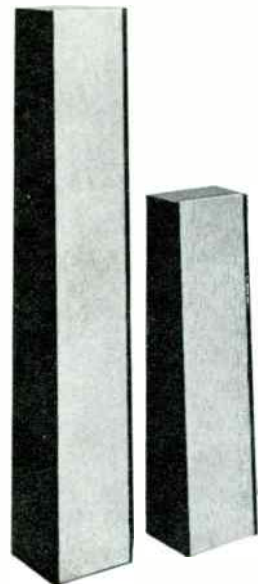
£21.7.6 (£21.37½) Carr. 7/6 (37½p)

REFLEX HORN SPEAKERS WITH BUILT-IN DRIVER UNIT MODEL RUH-6

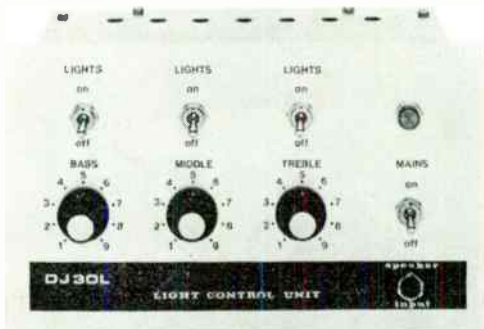


Weatherproof, rustproof and shockproof. Power rating: 10 watts. Impedance: 16 ohms. Frequency: 380–7,000 Hz. 6" × 6".

£4.19.6 (£4.97½) each



D.J.30L. PSYCHEDELIC LIGHT CONTROL UNITS

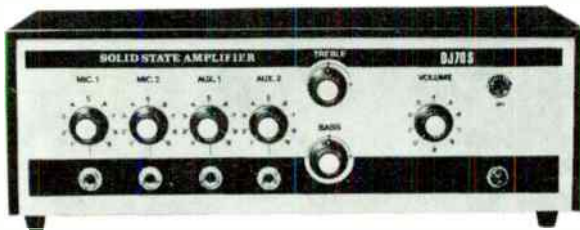


The D.J.30L Light Control Unit has been designed using the latest semi-conductor circuits, for utmost reliability under all conditions. Both units feature dual input sockets for front or rear connections, plus an over-ride switch so that the lights may be left permanently on if required. The cabinets have been made for panel mounting so that they may be fitted into permanent installation or small portable box as required. The units are suitable for use in discotheques, clubs, theatres, etc.

The **MAXIMUM** wattage that each channel will handle is **1,000 watts** (i.e. **10 100-watt light bulbs**) in the lights flashing position or **600 watts** in the lights on position with all three channels working simultaneously. Speaker input maximum **70 watts RMS**. This is a three-channel light unit that enables the bass, middle and treble frequencies from the amplifier to be operated individually as required.

£33.12.0 (£33.60) Carr. 5/- (25p)

D.J.70S INTEGRATED MIXER-AMPLIFIER



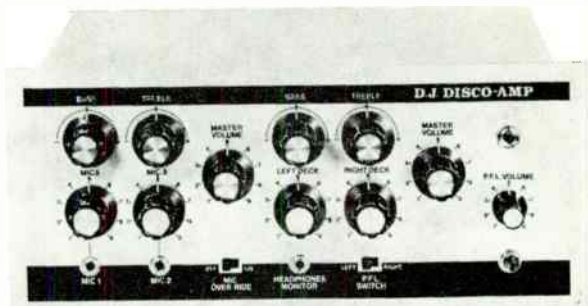
The D.J.70S is an integrated mixer amplifier which is in every respect one of the finest units available on the market today, regardless of price. The front end of the unit consists of a four-channel mixer with separate inputs and volume controls, plus a separate bass, treble and master volume control. One of the main features of this remarkable amplifier is its elaborate protection against shock and open circuit and we can guarantee that it is virtually indestructible. Allied to this is its very high power output, a frequency response that is superb, and distortion that is well below 1% even at full output. The unit is suitable for use with discotheques, groups, P.A. clubs, etc., or anywhere that high quality high output is required.

SPECIFICATION

Power Output: 70 watts RMS ± 1 db at 8 ohms. **Frequency Response:** 30-20,000 Hz ± 3 db. **Signal-to-Noise Ratio:** Better than -65 db. **Harmonic Distortion:** Less than 1% at full output. **Speaker Impedance:** 8-16 ohms. **Inputs:** Mic 1 and 2: 2mV at 50k ohms; Aux 3 and 4: 100mV at 1M ohm. 60- or 600-ohm Mic inputs can be ordered at extra cost to special order. **Bass:** Continuously variable 20 db at 100 Hz. **Treble:** Continuously variable 20 db at 10 kHz. **Fuse:** A.C. 1.5 amps (British Standard). **Size:** 15½" x 5" x 6".

£53.10.0 (£53.50) Carr. 10/- (50p)

D.J. DISCO-AMP.



The D.J. Disco-amp has been designed specifically for use with discotheques and has many exclusive features not normally found on P.A. amplifiers. The unit will be of use to the professional D.J. as well as in clubs and mobile discotheques.

The pre-amp section features independent inputs and volume controls for two mics with separate bass, treble and master volume, plus two independent inputs and volume controls for turntables, again with separate bass, treble and master volume controls.

A complete pre-fade listen (P.F.L.) cueing monitor section is also featured with separate input for headphones (either stereo or mono) with an independent volume control for headphone monitoring, and a P.F.L. switch, so that either turntable can be monitored for accurate cueing up of records. A mic over-ride switch is also added which cuts the music volume by half so that mic announcements may be made over the music without altering the volume controls.

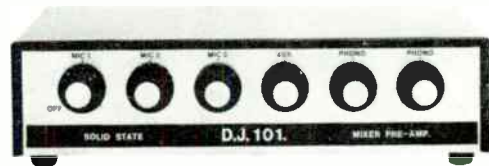
The power amplifier section has an output of 70 watts RMS into 8 ohms and has elaborate protection against thermal, short or open circuit. The unit is designed for panel mounting.

SPECIFICATION

Output Power: 70 watts RMS ± 1 db at 8 ohms. **Frequency Response:** 30-20,000 Hz ± 3 db. **Harmonic Distortion:** Less than 1% at full output. **Signal-to-Noise Ratio:** Better than -65 db. **Speaker Impedance:** 8-16 ohms. **Headphone Impedance:** 8-16 ohms. **Bass Control:** Variable 20 db at 100 Hz. **Treble Control:** Variable 20 db at 10 kHz. **Inputs:** Mic 1 and 2: 2mV at 50k ohms; Turntable 1 & 2: 100mV at 1M ohm. 50 or 600-ohm mic inputs may be ordered at extra cost. **Size:** Front Panel: 16½" x 7"; Cut Out: 15½" x 6". **Fuses:** A.C. 1.5 amp (B.S.) mounted on back panel.

£76.10.0 (£76.50) Carr. 10/- (50p)

D.J.101 MIXER PRE-AMPLIFIER



The D.J.101 is a battery (9V) operated all-silicon transistor mixer pre-amplifier, which has been designed as a versatile high quality unit, suitable for use with tape recorders, amplifiers, discotheques, etc.

Six inputs allow full mixing facilities for all types of equipment. The unit is housed in an attractive all-metal cabinet which is logically laid out for simplicity in use. A 9V (PP6) battery is supplied with the unit.

SPECIFICATION

Inputs: Mic 1: 8mV at 50k ohms; Mic 2: 8mV at 50k ohms; Mic 3: 8mV at 600 ohms; Aux 1: 100mV at 500k ohms; Phono 1: 100mV at 500k ohms; Phono 2: 100mV at 500k ohms. **Output:** 250mV (RMS) at 100k ohms for rated input. **Signal-to-Noise Ratio:** -65 db (Ref. IV RMS). **Frequency Response:** 20-20,000 Hz ± 1 db. **Harmonic Distortion:** Less than 0.5% at 1V. **Size:** 10½" x 2½" x 4½". **Battery:** Ever Ready (PP6) or equivalent.

£10.15.0 (£10.75) Carr. 5/- (25p)

EAGLE EG.25 POWER OUTPUT MODULE

A 25 watts RMS high-power module with transformerless output. Generous heat sink area for maximum reliability. Built to professional standards. Negative earth.

Input: 150 mV.
Output Power: 25 watts RMS (IHF 40 watts). **Frequency Range:** 10–30,000 Hz. **Power Requirements:** 45 V d.c.
Dimensions: 125 × 80 × 30 mm. **£9.19.6**



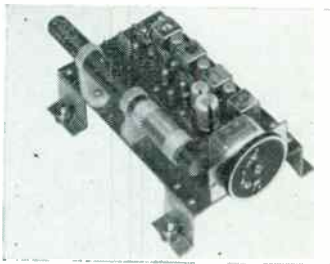
EAGLE P.45 POWER SUPPLY UNIT

Matching power supply unit for the EG.25.
Input: 240 V a.c. **Output:** 45 V d.c. at 900 μ A. **£4.15.0**

EAGLE AMT.35

AM Tuner Chassis. Sub-miniature AM Tuner Chassis covering 600–1,500 kHz. Operates from 9-volt battery. Built-in ferrite aerial for high efficiency. Complete with calibrated tuning knob, circuit diagram and full instructions.

Positive Earth. **£4.10.0**



PERSONAL SHOPPERS WELCOME!

Large walk round shops with thousands of bargains many of which we are not able to include in our catalogue.

OPEN 6 DAYS A WEEK

9 a.m. — 6 p.m.

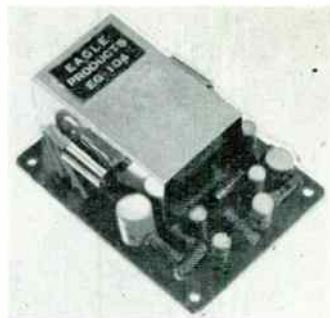
Edgware Road Half Day Thursday

EG.104

Sub-miniature 1-Watt transistorised push/pull Audio Amplifier on printed circuit with circuit diagram and instructions.

Size 3" × 2 $\frac{3}{8}$ " × 1 $\frac{1}{8}$ " 9 volts
Output to 8 or 16 ohms
Input 10 mV. Positive earth.

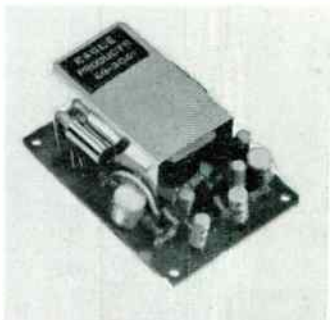
49/6



EG.304

Sub-miniature 3-Watt transistorised push/pull Audio Amplifier on printed circuit with circuit diagram and instructions.

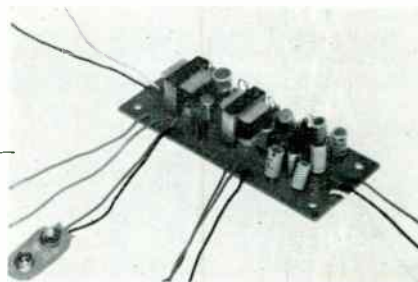
Size 3" × 2 $\frac{1}{8}$ " × 1 $\frac{1}{8}$ " 9 volt supply
8 and 16 ohm output. Input
10 mV. Positive earth. **55/-**



EAGLE EG.2004

Sub-miniature 250 mW transistorised push/pull Audio Amplifier on printed circuit with circuit diagram and instructions.

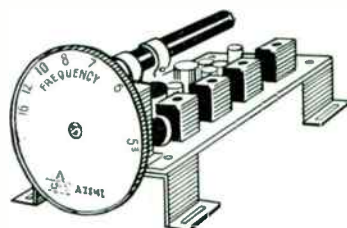
Size 4" × 1 $\frac{7}{8}$ " × 1 $\frac{1}{8}$ "
4-transistor 9 volt operation. 3-4 or 8 ohms output. Input 10 mV. Positive earth. **42/6**

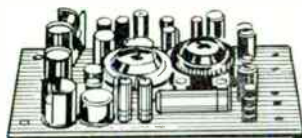


A.1007 TRANSISTOR AM TUNER

3 Transistor AM Tuner covering full medium wave. (190–Size S60 metres.)
4 $\frac{1}{2}$ " × 2 $\frac{3}{8}$ " × 2 $\frac{3}{8}$ ".
Ready built. 9-volt battery operation. Complete with instructions.

67/6





NEWMARKET PACKAGED AUDIO AMPLIFIERS

Newmarket pre-assembled Packaged Circuits have been developed to provide standardised starting points in the design of all types of equipment. Their use saves expensive, time-consuming research, thus cheapening the production of new types of electronic equipment.

N.B. Maximum operating ambient temperature: 45°C. Specification figures are at 25°C.

Code	Description	Volts (nominal)	Output Power	Output Load	Current Consumption (Typical)		Input Impedance	Sensitivity (r.m.s. input)	Frequency Response (3db down)	Distortion (Typical)	Price
					Quiescent	Full Power					
PC1	Amplifier, medium impedance, high gain	9V	150mW	40 Ω	4mA	35mA	1.5K	50mV	330 c/s-15 Kc/s	2%	32/6
PC2	Amplifier, low impedance, high gain	9V	400mW	15 Ω	10mA	100mA	1.0K Ω	1mV	200 c/s-12 Kc/s	3%	45/-
PC3	Amplifier, medium impedance, high gain	9V	400mW	15 Ω	10mA	100mA	2.5K Ω	5mV	200 s/c-12 Kc/s	3%	45/-
PC4	Amplifier, high impedance, high gain	9V	400mW	15 Ω	10mA	100mA	220K Ω	150mV	200 c/s-12 Kc/s	3%	45/-
PC5+	Amplifier, high power, high gain	12V	3W	3 Ω	10mA	500mA	1.0K Ω	5mV	50 c/s-12 Kc/s	3%	85/-
PC7+	Amplifier, medium power, high gain	9V	1W	8 Ω	10mA	150mA	1.0K Ω	5mV	50 c/s-12 Kc/s	3%	55/-
PC7+12	Amplifier, medium power, high gain	12V	1W	15 Ω	10mA	135mA	1.0K Ω	5mV	50 c/s-12 Kc/s	3%	55/-
PC9	Pre-amplifier, high to low impedance matching	9V	>15mV	>2K Ω	0.5mA	±0.1mA	1M Ω	1V	20 c/s-20 Kc/s	1%	27/6

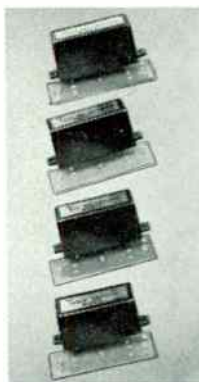
N.B. Type PC9 is a high to low impedance matching pre-amplifier.

The 1V r.m.s. input voltage is at 1 Kc/s from 600 Ω source and the output of 15mV is across a 4.7K Ω resistor.

★ SEE INDEX FOR NEWMARKET PACKAGED POWER UNITS ★

MINIATURE TRANSISTOR MODULES

Each module is completely assembled ready for immediate use, and supplied with mounting socket to enable modules to plug in and out of circuits. Complete with instructions each module measures 2½" wide.



E.1311 Phono Pre-amplifier Module

Input Impedance: 100K ohms.
Gain: 28 db.
Max. Output: 2.5 volts RMS.
Max. Input: 50 mV.
Distortion: ·15% at 1 volt output.
Compensation: RIAA.
Power Requirements: 9-12 volts d.c. 25/-

E1313 Microphone Pre-amplifier Module

Input Impedance: 100K ohms.
Gain: 28 db.
Max. Output: 2.5 volts RMS.
Max. Input: 50 mV.
Distortion: ·5% at 1 volt output.
Response: 10-15,000 cps.
Power Requirements: 9-12 volts d.c. 25/-

E.1314 Power Amplifier Module

Input Impedance: 1K ohms.
Gain: 20 db.
Max. Output: 300 mW.
Max. Input: 100 mV.
Distortion: 3% at 200 mW.
Response: 10-12,000 cps.
Power Requirements: 9 volts d.c. 25/-

E.1312 Tape Head Pre-amplifier Module

Input Impedance: 100K ohms.
Gain: 25 db.
Max. Output: 1.5 volts RMS.
Max. Input: 50 mV.
Distortion: ·5% at 1 volt output.
Compensation: N.A.B.
Power Requirements: 9-12 volt. d.c. 25/-

E.1315 Electronic Organ Tone Oscillator. Used in conjunction with an organ keyboard, variable resistances and a 9 volt power supply, this module acts as the oscillator unit for an electronic organ.

Tone Frequency: 200-1000 Hz; Output: 80 mW; Current: 15 mA; Power Supply: 9 volts. 21/-

E.1316 Morse Code Oscillator. A transistorised morse code oscillator (buzzer) to be used in conjunction with an operating key. Suitable for direct connection to a loud-speaker.

Tone Frequency: 400 Hz; Power Output: 80 mA; Power Supply: 3-9 volts; Current: 45 mA. 21/-

E.1317 Wireless Code Oscillator/Transmitter. This oscillator unit can be used with an ordinary AM radio receiver for modulated signal transmissions, and for bench trouble shooting when servicing.

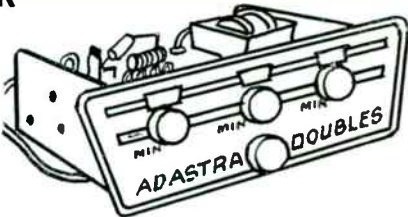
Transmitter Frequency: 400 Hz-30 mHz; Tone Frequency: 400 Hz; Power Supply: 9 volt d.c.; Current: 35 mA. 21/-

E.1318 Dual Lamp Flasher. A switch module for electronically alternating two miniature bulbs, 6 volt, 100-200 mA. Ideal for models, toy boats and planes, displays, warning and security devices, communication signals, etc.

Flasher Time: ½ second; Power Supply: 6 volt d.c.; Current: 150 mA; Lamp: 6 volt-150 mA. 21/-

ADASTRA "DOUBLE 5" STEREO AMPLIFIER

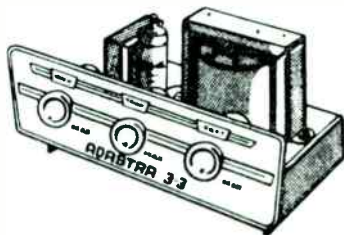
This all-transistor amplifier delivers up to 5 watts each channel, and can be fed with a wide variety of inputs including low output magnetic cartridges, other pick-ups, AM and FM tuners and microphones. The controls are simple, and due to its solid-state construction this unit can safely be adapted for cabinet installation.



10 Transistors. Output: 3 watts, 5 watts peak. **Sensitivity (Magnetic):** 5 mV; (Crystal): 60 mV. **Frequency Response:** 75-20,000 Hz. **Distortion Factor:** 2% average. **Hum and Noise:** -65 dB. **Negative Feedback:** 15-20 dB. **Output Impedance:** 12-16 ohms. **Mains Supply:** 200-240 V a.c. **Bass Boost:** +9 dB at 160 Hz. **Treble Cut:** 19 dB at 10 kHz. **Max. Input:** 130 mV. **Controls (Ganged):** Volume, Treble, Bass (ON/OFF) and Shift (Balance). **Dimensions:** 8½" x 6" x 3½".

£12.5.0 Carr. 6/-

ADASTRA '3.3' AMPLIFIER



Probably the best value for money in modest amplifiers, this famous 3-4-watt model can be used with pick-ups, radio tuners, microphones and tape recorders. Based on a Mullard circuit with separate Bass and Treble controls, the '3.3' can be operated as a free-standing unit or fitted into a cabinet.

Valve Line-up: EX 80, ECL 86. **Power Output:** 3 watts, 4 watts peak. **Sensitivity:** 200 mV. **Distortion Factor:** 2%. **Hum and Noise:** -70 dB. **Negative Feedback:** 10 dB. **Output Impedance:** 3-5 ohms. **Mains Supply:** 200-250 V a.c. **Controls:** Volume, Treble, Bass, ON/OFF. **Dimensions:** 8" x 5" x 4½".

£6.6.0 Carr. 6/-

"ADASTRETTE" Record Player Amplifier



A 2-3-watt printed circuit amplifier with a high standard of performance presented for easy installation. The chassis and mains transformer are removable from the wood base for adapting into any cabinet. The controls are on a flying lead with self-adhesive escutcheon and this flexible amplifier will operate with any player deck utilising a medium or high output cartridge.

Valve Line-up: EZ 80, ECL 82. **Output:** 2.5 watts, 3 watts peak. **Sensitivity:** 250 mV. **Output Impedance:** 3-5 ohms. **Mains Supply:** 210-250 V a.c. **Controls:** ON/OFF, Tone, Volume. **Dimensions:** 8½" x 4½" x 2½".

£4.5.0 Carr. 5/-

ADASTRA TOP 20 Mk.II. 12" LOUDSPEAKER



This latest version of this tried and popular 12" speaker features a ceramic-slim magnet combined with distortion-proof suspension and cast chassis. With a very genuine power handling capacity of 25 watts peaking to 40 watts, the 'Top 20' fulfils all the demanding requirements of musical instrument equipment, public address installations and wherever a high-powered sound source needs faithful and reliable reproduction. Individually boxed with data sheet providing cabinet advice and other information. British-made throughout.

Frequency Response: 25-13,000 Hz. **Flat Response:** 30-10,000 Hz. **Bass Resonance:** 45 Hz. **Impedance:** 15 ohms. **Power Handling:** 25 watts normal; 40 watts peak. **Flux Density:** 12,000 lines. **Voice Coil:** 1½". **Overall Diameter:** 12½". **Depth:** 5". **Baffle Aperture:** 11". **Fixing Centres:** 13".

£5.5.0 Carr. 5/-

ADASTRA HI-TEN 10" LOUDSPEAKER



Another completely British unit under the Adastra label, the 'Hi-Ten' full range 10" loudspeaker handles up to 10 watts with convincing all-round performance. Again, a ceramic magnet keeps the unit compact and contributes considerably to the reputation earned by the 'Hi-Ten' since its introduction. An ideal unit for all full range music, audio and monitoring purposes.

Frequency Response: 40-10,000 Hz. **Bass Resonance:** 70 Hz. **Power Handling:** 10 watts. **Impedance:** 15 ohms. **Flux Density:** 10,000 lines. **Voice Coil:** 1". **Baffle Aperture:** 9". **Fixing Centres:** 9.63" x .25". **Dimensions:** 10.07" x 3.62".

45/- Carr. 5/-

RICHARD ALLAN 12" LOUDSPEAKERS

Low cost loudspeaker with a rating of 5-6 watts.

MODEL 1260.

Single cone, 3 or 15 ohm

36/- Carr. 5/-

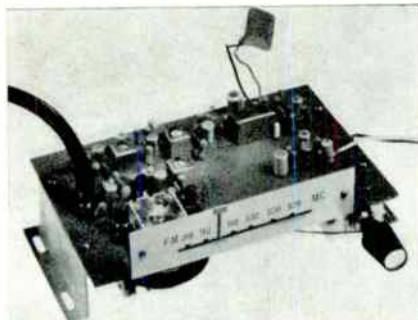
MODEL 1260T.

Twin cone, full range, 3 or 15 ohm

37/6 Carr. 5/-



SUB-MINIATURE FM TUNER CHASSIS

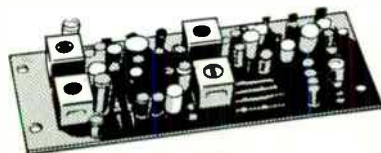


Fully tunable over 88-108 MHz. 6 transistors and 3 diodes, circuit completely assembled and tested on printed circuit board. Negative ground type. Slow-motion tuning drive. Operates from 9 V battery. Complete with tuning scale, tuning dial knob, telescopic antenna and instructions leaflet.

Specifications:

Frequency Range: 88-108 MHz. **Input Impedance:** 75 ohms. **Intermediate Frequency:** 10.7 MHz. **Input Sensitivity:** 10 μ V for 10 mV output. **Dimensions:** 6 $\frac{1}{4}$ " \times 4" \times 2 $\frac{1}{2}$ ".

£6.7.6 (£6.37 $\frac{1}{2}$)



TRANSISTORISED FM ADAPTOR MULTIPLEX MODEL A1005M

Designed for use with

the above and also A1005 or A1008 FM Tuners. Simple installation.

MPX Input Power: .1 V minimum.
Power Requirements: 9 V-12 V 5 mA at 12V.
Output Power: 1.5 times input power.
Transistors: 2 \times 2SB-202; 2 \times 2SB-186.
Diodes: 1 \times IN34; 6 \times IN60.

£4.19.6 (£4.97 $\frac{1}{2}$)

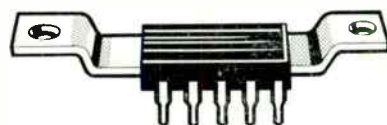
D.J. THREE-WAY COMPACT SPEAKER SYSTEM



£9.9.0 (£9.45) each
Carr. 10/- (50p) pair

Finish: Teak.
Cabinet Size: 14" \times 9" \times 8 $\frac{1}{2}$ ".
Woofer: 6 $\frac{1}{2}$ ", 10,000 gauss, 1" pole fitted with tweeter cone.
Free Air Resonance: 50 Hz.
Tweeter: 3 $\frac{3}{8}$ " acoustically loaded.
Frequency Response: 40-20,000 Hz.
Sensitivity: 94 db at 12 watts. (Microphone 6 ft.)
Power Handling: 12 watts programme level.
Impedance: 8-ohm system suitable for 4-15-ohm valve or transistor amplifiers.

INTEGRATED CIRCUIT AMPLIFIER MODULE IC-403

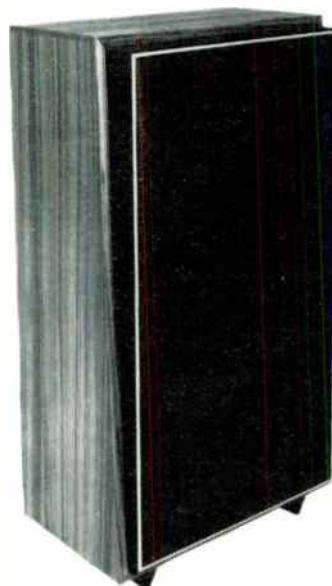


Size only 25 \times 10 \times 5 mm—represent the most amazing breakthrough in circuit design since the introduction of the transistor. The actual circuit—no bigger than a pinhead—is encapsulated in solid plastic, fused with the heatsink and connecting pins to make an almost indestructible unit. The IC-403 is an integrated power and pre-amplifier requiring only the addition of tone and volume controls, power source and speaker to form a complete audio amplifier of 3 watts output. There are many applications for this unique device, wherever high efficiency and ultra compact size is required, i.e. miniature PA and audio amplifiers, intercons, electronic organs, tape recorders, etc., etc.

Specification (ratings at 25°C): **Output Power:** Typically 3 watts from 250 mV input. **Frequency Response:** 20-80,000 Hz \pm 3 dB. **Power Amp. Distortion:** 0.3% (at 1 watt, 400 Hz). **Pre-amp. Gain:** 24 dB. **Power Amp. Gain:** 26 dB. **Max. Operating Voltage:** 21 V. **Min. Operating Load:** 7.5 ohms. **Noise Level:** -75 dB. **Pre-amp. Input Impedance:** 2 M/ohms. **Pre-amp. and Power Amp. D.C. Input Current:** 50 mA.

ONLY 49/6 (£2.47 $\frac{1}{2}$)

DECCA DERAM LOUDSPEAKER SYSTEM



Comprises an elliptical bass unit and 3" treble speaker fed through an L/C cross-over unit at 5 kHz.
Input Impedance: 15 ohms.
Power Handling Capacity: 8-10 watts.
Dimensions: 25" high \times 13 $\frac{3}{8}$ " wide \times 8" deep.
Available in rosewood or teak.
Teak Finish:
£14.14.6 (£14.72 $\frac{1}{2}$)
Carr. 10/- (50p)
Rosewood Finish:
£15.12.0 (£15.60)
Carr. 10/- (50p)

CELESTION LOUDSPEAKERS



DITTON 10 Mk.II Enclosure

Type: Infinite baffle (totally enclosed box). **Size:** 12 $\frac{3}{4}$ " x 5 $\frac{3}{4}$ " x 8 $\frac{1}{4}$ " (32 x 17 x 20 cm.). **Weight** (complete): 13 lb. (5.89 kg.) net. **Overall Frequency response:** 35 Hz-15 kHz. **Fundamental resonance:** 70 Hz. **Damping:** Q-0.7.

Power-handling capacity: 10 watts r.m.s. (20 watts peak). **Impedance:** 4 ohms or 15 ohms. **Crossover:** Low-loss three-element LC network. **Crossover frequency:** 3.5 Hz. **Finish:** Walnut or Teak (4-ohm model in Teak only).

Bass Drive Unit

Size: 5" (12 cm.) dia. **Excursion:** $\frac{1}{2}$ " (12 mm.) maximum. **Fundamental resonance in free air:** 30 Hz. **Frequency response:** 35 Hz-3.5 kHz (in enclosure). The frequency response is level ± 2 dB 90 Hz-3.5 kHz and falls at 12 dB/octave below 80 Hz.

Treble Drive Unit

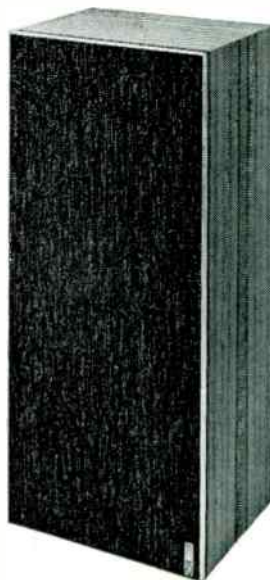
Type: Moving coil pressure. **Size:** 1 $\frac{1}{2}$ " (38 mm) dia. **Frequency response:** 3.5 kHz-15 kHz ± 2 dB.

£17 5 0 Carr. 10/- (in enclosure)

DITTON 25 Enclosure

Size: 32" x 14" x 11" (81 x 36 x 28 cm.). **Weight:** 48 lbs. (21.75 kg.) net. **Overall Frequency response:** 20 Hz to 40 kHz. Within ± 2 dB 60 Hz to 20 kHz (-4 dB at 45 Hz). **Power-handling capacity:** 25 watts r.m.s. (50 watts peak). **Impedance:** 4-8 ohms. **Crossover:** Low loss 9-element LC network. **Finish:** Teak or Walnut. **Drive Units:** 12" auxiliary bass radiator; 12" long throw bass speaker; two pressure-type mid- and high-frequency units; one pressure-type ultra high-frequency unit.

£47 10 0 Carr. 12/6



DITTON 15

Enclosure Size: 21" x 9 $\frac{1}{2}$ " x 9 $\frac{1}{4}$ " (53 x 24 x 23 cm.). **Weight** (complete): 20 lbs. (9.2 kg.) net. **Overall frequency response:** 30 Hz-15 kHz. **Power-handling capacity:** 15 watts r.m.s. (30 watts peak). **Impedance:** 4-8 ohms. **Crossover:** Low-loss LC network. **Finish:** Teak or Walnut. **Bass/mid Drive Unit Size:** 8" (20 cm.) dia. **Excursion:** $\frac{3}{8}$ " (10 mm.) maximum. **Fundamental resonance in free air:** 25 Hz. **Frequency response:** 30 Hz-2.5 kHz (in enclosure).

Auxiliary Bass Radiator Size: 8" (20 cm.) dia. **Excursion:** $\frac{1}{2}$ " (13 cm.) maximum. **Resonance in free air:** 8 Hz. **Frequency response:** 30-60 Hz. **Suspension:** Double roll neoprene.

Treble Drive Unit Type: Moving coil pressure. **Size:** 1 $\frac{1}{2}$ " (38 mm.) dia. **Frequency response:** 2.5 kHz-15 kHz ± 2 dB. £22 10 0 Carr. 10/-

EAGLE DL.50 STEREO SPEAKER SYSTEM



This latest matched pair addition to the Eagle range of loud-speaker systems offers honest value for money performance as well as up-to-the-minute styling. The superbly finished teak cabinets and carefully selected charcoal-grey material have been designed to add their own brand of tastefulness to any room setting.

£16.7.0 (£16.35) pair Carr. 10/- (50p)

Power Handling: 5 watts RMS, 10 watts peak. **Frequency Range:** 40-19,000 Hz. **Flux Density:** 9,500 gauss. **Impedance:** 8 ohms. **Dimensions:** 360 x 224 x 160 mm. **Finish:** Oiled Teak.

EAGLE SN.75 2-WAY SPEAKER NETWORK

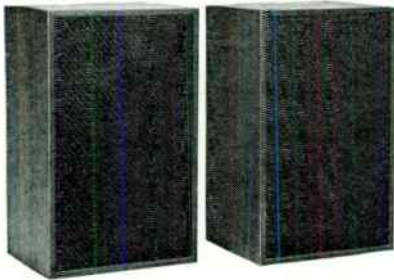


Crossing over via an L-C network, the SN.75 is fitted with an adjustable high-frequency control which pre-determines the tweeter loading. As well as the adjustable control and cross-over network a heavy gauge metal panel carries spring-loaded terminals for quick and reliable connection of the finished speaker system.

£1.12.6 (£1.62 $\frac{1}{2}$)

Impedance: 8 ohms. **Crossover Frequency:** 3,000 Hz.

EAGLE DL.25 STEREO SPEAKER SYSTEM



You can get Stereo Speaker quality at a very reasonable price—here it is. Each speaker in this matched pair comes complete with 10 ft. lead and phono plug. All the pleasure of stereo listening at a price

that anyone would be glad to pay—and a handsome appearance into the bargain.

Power Handling: 4 watts RMS, 8 watts peak. **Frequency Range:** 40–16,000 Hz. **Flux Density:** 8,500 gauss. **Impedance:** 8 ohms. **Dimensions:** 230 × 140 × 120 mm. **Finish:** Oiled walnut.

£9.9.0 Carr. 7/6

EAGLE DL.42 SPEAKER SYSTEM

This speaker system consists of high-compliance bass unit with horn tweeter to give extended response with brilliant attack. A variable brilliance control at the back of the unit can be adjusted to suit any room conditions.

Power Handling: 5 watts RMS, 10 watts peak. **Frequency Range:** 40–20,000 Hz. **Flux Density:** 10,000 gauss. **Impedance:** 8 ohms. **Dimensions:** 250 × 150 × 165 mm. **Finish:** Oiled teak.

£10.19.6 Carr. 7/6



EAGLE DL.67 SPEAKER SYSTEM



Like the DL.42 above, these speakers give a full range frequency response that is astonishing in such compact enclosures. They perform like the most costly speakers, despite their relatively modest price. Finished in teak, they are as handsome to the eye as they are to the discerning ear.

Power Handling: 10 watts RMS, 20 watts peak. **Frequency Range:** 35–20,000 Hz. **Flux Density:** 11,000 gauss. **Impedance:** 8 ohms. **Dimensions:**

300 × 220 × 170 mm. **Finish:** Oiled Teak.

£12.12.0 Carr. 7/6

EAGLE FR.4 SPEAKER



This is a full-range high-compliance speaker, sold with complete instructions for the building of a compact enclosure. This is an excellent way to get high quality reproduction at the lowest possible price . . . plus the pleasure of building your own enclosures to match existing furnishings.

Diameter: 100 mm (4"). **Power Handling:** 5 watts RMS, 10 watts peak. **Frequency Range:** 40–16,000

Hz. **Flux Density:** 10,000 gauss. **Impedance:** 8 ohms. **Baffle Opening:** 90 mm. £3.12.6

EAGLE FR.65 & FR.8 SPEAKERS

Like the FR.4 above, these speakers are intended for mounting in the buyer's own cabinets; also like FR.4 they each feature powerful ceramic magnets developing over 10,000 gauss. These models, however, are not only intended to handle more power but also have an integral tweeter for even more brilliant sound.

FR.65 Diameter: 165 mm (6-5"), **Power Handling:** 10 watts RMS.

20 watts peak. **Frequency Range:** 35–18,000 Hz. **Flux Density:** 11,000 gauss. **Impedance:** 8 ohms. **Baffle Opening:** 135 mm. £5.12.6 Carr. 5/-



FR.8 Diameter: 200 mm (8"). **Power Handling:** 15 watts RMS, 25 watts peak. **Frequency Range:** 30–18,000 Hz. **Flux Density:** 12,000 gauss. **Impedance:** 8 ohms. **Baffle Opening:** 170 mm.

£6.12.6 Carr. 5/-

HI-FI

PACKAGE DEALS

See pages 124-127

Quotations by return

Let us have details of your requirements

EAGLE SPEAKER KITS

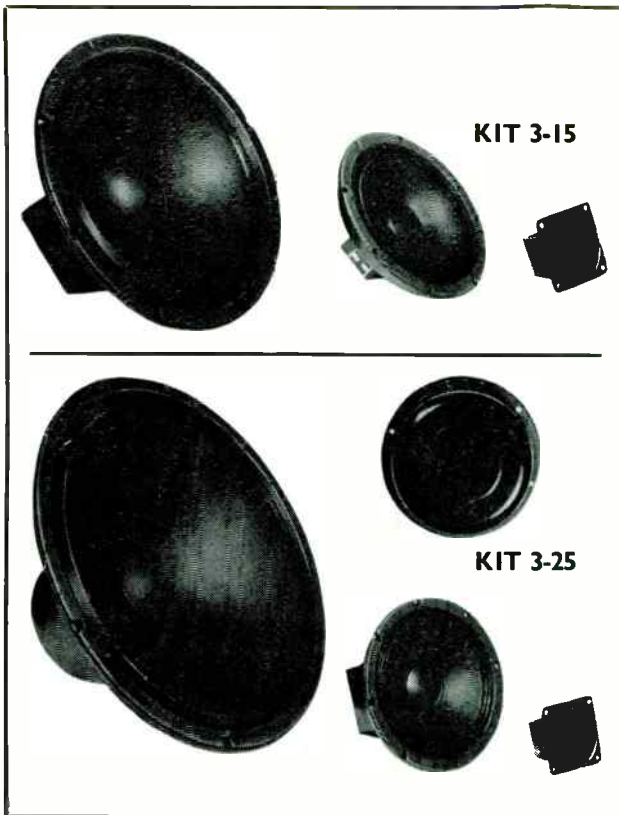
Manufactured for Eagle by Denmark's leading Speaker Manufacturers. They have all been designed to give true high fidelity for the user who wishes to build his own cabinets but at the same time wants the matched performance of expensive manufactured units.

The three kits of 6½", 8" and 12" cover every need of listening and size with the added advantage that not only is the finished result usually superior in both workmanship and performance but it can be made to match in with existing furnishings.

All the Kits are supplied complete with cross-over and dividing networks together with full cabinet drawings.



KIT 2-8



KIT 3-15

KIT 3-25

Model KIT 2-8

Specification:

Number of Speaker Units:	2
Woofer Diameter:	165 mm (6½")
Voice Coil:	25mm (1")
Gap Flux:	54,000 Maxwells
Tweeter Diameter:	65 x 65 mm (2½" x 2½")
Voice Coil:	12 mm (½")
Gap Flux:	12,000 Maxwells
Overall Response:	50-18,000 Hz
Handling Power:	8 watts
Impedance:	8 ohms
Recommended Cabinet:	428 x 195 x 275 mm (16⅞" x 7⅜" x 11⅞")

£8.8.0 Carr. 5/-

Model KIT 3-15

Specification:

Number of Speaker Units:	3
Woofer Diameter:	210 mm (8¼")
Voice Coil:	32 mm (1¼")
Gap Flux:	90,000 Maxwells
Mid Range Diameter:	127 mm (5")
Voice Coil:	16 mm (⅝")
Gap Flux:	21,500 Maxwells
Tweeter Diameter:	51 x 51 mm (2" x 2")
Voice Coil:	12 mm (½")
Gap Flux:	1,200 Maxwells
Overall Response:	45-18,000 Hz
Handling Power:	15 watts
Impedance:	8 ohms
Recommended Cabinet:	547 x 218 x 305 mm (22" x 8⅝" x 12")

£12.19.6 Carr. 5/-

Model KIT 3-25

Specification:

Number of Speaker Units:	3
Woofer Diameter:	305 mm (12")
Voice Coil:	32 mm (1¼")
Gap Flux:	90,000 Maxwells
Mid Range Diameter:	127 mm (5")
Voice Coil:	21 mm (⅝")
Gap Flux:	42,000 Maxwells
Tweeter Diameter:	51 x 51 mm (2" x 2")
Voice Coil:	12 mm (½")
Gap Flux:	12,000 Maxwells
Overall Response:	50-18,000 Hz
Handling Power:	25 watts
Impedance:	8 ohms
Recommended Cabinet:	680 x 380 x 457 mm (26¾" x 15" x 18")

£16.16.0 Carr. 5/-

EAGLE CROSSOVER NETWORKS

CN.23, CN.28 and CN.216



Compact, 2-way crossover will channel high and low frequencies to proper speakers. High to tweeter and low to woofer. Crossover frequency 3,000 Hz. CN.23 3 ohms. CN.28 8 ohms. CN.216 16 ohms. 16/- each

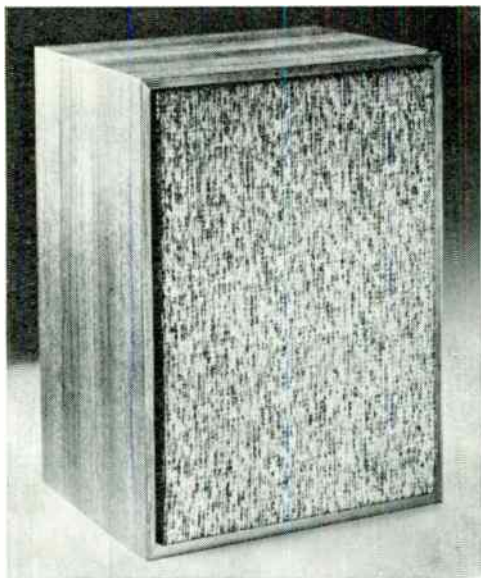
VARIABLE CROSSOVER K.4004



22/6

Highly flexible crossover unit in two-tone metal case with flanged side fixing. Continuously variable crossover between bass (woofer) and high-frequency (tweeter) units with control on front. Polarised screw tag connections. 4" x 1½" x 2½".

ELAC Model 'E6-S' LOUDSPEAKER



DESIGN FEATURES

- 1 Specially developed, dual cone, wide range 6" loudspeaker of the 'Long-Throw' type.
- 2 Linear suspension by use of a moulded rubber surround of new design which provides complete freedom of movement while also eliminating entirely any mechanical or acoustical edge distortion effects.
- 3 'High Sensitivity' a distinct advantage when used with low-power amplifiers.
- 4 Cabinet of the totally enclosed type, acoustically padded with high grade spun fibre media and externally finished in scratch-resistant simulated teak or walnut.
- 5 Pleasing appearance in design and careful attention to size, not too large or small.

SPECIFICATION

Frequency Response	55-16,000 Hz
Power-handling Capacity	10 watts
Impedance	8 and 15 ohms
Overall Size	11" x 8" x 6" deep (28 x 20.4 x 15.3 cm.)
Total Weight including Packing	7 lbs. (3.175 kilos)

£8 7 6 Carr. 5/-

E.M.I. 450 HI-FI SPEAKERS



Consists of a 13½" x 8½" (343 x 206 mm) elliptical loudspeaker and independent high-frequency units with associated crossover network. The high-frequency units are mounted across the shorter axis of the bass unit.

The cone of the bass unit has a surround designed for high travel giving freedom from distortion when operated at low frequencies.

The elliptical shape also ensures freedom

from unwanted resonances in the middle-frequency range.

If the unit is mounted with its major axis vertical the high-frequency units, which are mounted at an angle, give a broad horizontal average over a wide frequency response.

Impedance: 15 ohms or 8 ohms or 3 ohms. **Nominal Size:** 13½" x 8½" (343 x 206 mm). **Frequency Range:** 40-13,000 Hz. **Peak Power Handling:** 10 watts. **Flux Density:** Bass Unit: 10,000 gauss; H.F. Unit: 7,000 gauss. **Speech Coil Diameter:** Bass Unit: 1" (25.4 mm); H.F. Units: 7,000 ½" (12.7 mm). **Bass Resonance:** 40-50 Hz. **Magnet Material:** Magnadure II. **Crossover Frequency:** 8,500 Hz. **Finish of Cover and Frame:** Stove Enamel. **Finish of Magnet Assembly:** Passivated Cadmium. **Total Weight:** 2¾ lbs. (1.25 kg)

PRICE 72/6 EACH

Also available without tweeters in 3 or 15 ohms. **38/6 each**
Carriage 5/- each, 7/6 pair

NEW EMI SINGLE CONE 13" x 8" SPEAKER

Heavy duty Ceramic magnet. 15 ohms. 15 watts. **79/6**
Carriage 5/- each

ELAC HI-FI SPEAKERS



Full range speakers with tweeters, ceramic magnets.

8" Type

5-6 watts, Available in 3, 8 or 15-ohms.
Frequency Range: 40 Hz-14 kHz **47/6**

10" Type

8-10 watts, 15-ohm type.
No. 10RM/213
Frequency Range: 35 Hz-14 kHz **55/-**

ELAC 59/RM 100 SPEAKERS

9" x 5". 3 ohm. Ceramic magnetic. As specified for Baxendal Speaker.

52/6



E.M.I. HIGH COMPLIANCE 6½" SPEAKER

Ceramic magnetic.
5-watt rating.
8-ohm impedance.

45/-



FANE 'POPULAR' RANGE OF HEAVY DUTY LOUDSPEAKERS

- ★ DESIGNED FOR GENERAL PURPOSE PUBLIC ADDRESS SYSTEMS
- ★ IDEAL FOR VOCAL AND INSTRUMENTAL GROUPS
- ★ HEAVY CAST CHASSIS
- ★ LATEST HIGH EFFICIENCY ANISOTROPIC FERRITE MAGNETS



POP '15'

**FITTED TWEETER CONE
12" FULL FREQUENCY RANGE**

This type is not intended for use with bass, or rhythm guitar or electric organ. Three or more may be used with lead guitar if enclosed in pressurised columns.

80/-

Carr. 7/6 each

Voice Coil Diameter: 1"
Flux Density, Gauss: 11,000
Total Flux, Maxwells: 44,000
Nominal Rating: 15 watts
Frequency Range: 40-18,000 Hz
Peak Power Handling: 20 watts
Watts RMS Continuous: 10

Chassis Diameter: 12" Actual
12 3/8" over Mounting Lugs
Mounting: 4 Holes 1/2" dia. on pitch circle 11 3/4" dia.
Baffle Hole: 11" dia.
Overall Height: 4 3/8"
Net Weight: 4 lbs.
Main Resonance: 40 Hz

POP '30C'

**FITTED TWEETER CONE
12" FULL FREQUENCY RANGE**

96/-

Carr. 7/6 each



Voice Coil Diameter: 1"
Flux Density, Gauss: 11,000
Total Flux, Maxwells: 44,000
Nominal Rating: 30 watts
Frequency Range: 40-18,000 Hz
Peak Power Handling: 50 watts
Watts RMS Continuous: 25

Chassis Diameter: 12" Actual
12 3/8" over Mounting Lugs
Mounting: 4 Holes 1/2" dia. on pitch circle 11 3/4" dia.
Baffle Hole: 11" dia.
Overall Height: 4 3/8"
Net Weight: 4 lbs.
Main Resonance: 40 Hz

ULTRA HIGH POWER TYPES

POP '50' 12" BASS UNIT 8 GNS.

Carr. 7/6 each

Voice Coil Diameter: 2"
Flux Density, Gauss: 14,000
Total Flux, Maxwells: 186,000
Frequency Range: 30-8,000 Hz
Peak Power Handling: 100 watts
Watts RMS Continuous: 50

Chassis Diameter: 12" Actual
12 3/8" over Mounting Lugs
Mounting: 4 Holes 1/2" dia. on pitch circle 11 3/4" dia.
Baffle Hole: 11" dia.
Overall Height: 4 3/8"
Net Weight: 7 lbs.
Main Resonance: 30 Hz

POP '60'

15" BASS UNIT

Suitable for all bass instruments.

£10.1.8

Carr. 10/- each

Voice Coil Diameter: 2"
Flux Density, Gauss: 14,000
Total Flux, Maxwells: 186,000
Frequency Range: 25-5,000 Hz
Peak Power Handling: 120 watts
Watts RMS Continuous: 60

Chassis Diameter: 15" Actual
15 1/4" over Mounting Lugs
Mounting: 4 Holes 1/2" dia. over pitch circle 14.67" dia.
Baffle Hole: 13 1/2" dia.
Overall Height: 6 1/4"
Net Weight: 20 lbs.
Main Resonance: 40 Hz

POP '100'

18" EXTRA HEAVY DUTY

Built to withstand terrific power. Conservatively rated at 100 watts.

£17.12.6

Carr. 12/6 each



Voice Coil Diameter: 2"
Flux Density, Gauss: 14,500
Total Flux, Maxwells: 375,000
Frequency Range: 20-5,000 Hz
Peak Power Handling: 200 watts
Watts RMS Continuous: 100

Chassis Diameter: 18" Actual
18 1/2" over Mounting Lugs
Mounting: 8 Holes 5/8" dia. on pitch circle 17 1/2" dia.
Baffle Hole: 16 1/2" dia.
Overall Height: 7 1/8"
Net Weight: 22 lbs.
Main Resonance: 30 Hz

FANE 15" HEAVY-DUTY LOUDSPEAKERS

MODELS 152—2" VOICE COILS — CERAMIC MAGNETS



MODELS 152/12 & 152/12a



MODELS 152/14 & 152/14a



MODELS 152/17 & 152/17a

	Model 152/12	Model 152/12a	Model 152/14	Model 152/14a	Model 152/17	Model 152/17a
Diameter of magnet pole	2"	2"	2"	2"	2"	2"
Flux density gauss	12,000	12,000	14,000	14,000	17,000	17,000
Total Lines maxwells	160,000	160,000	186,000	186,000	226,000	226,000
Power handling—watts R.M.S.	25	25	27	27	30	30
Voice coil winding	Copper	Aluminium	Copper	Aluminium	Copper	Aluminium
Cone	Single	Twin	Single	Twin	Single	Twin
Frequency response—cps	25-3500	30-15000	25-3500	30-15000	25-4000	30-17000
Input Impedance—ohms	15	15	15	15	15	15
Main resonance—cps	32	32	32	32	32	32
Chassis diameter	15" diameter—15½" over mounting lugs					
Mounting holes	4 holes ¼" diam. on pitch circle 14.67" diam.					
Baffle hole	13½" diam.					
Overall height	5½"	5½"	5⅞"	5⅞"	6⅞"	6⅞"
Nett weight—lbs.	8	8	9	9	12½	12½
Carriage 7/6 per speaker	£11 5 6	£12 5 6	£13 0 6	£14 0 6	£15 12 0	£16 12 0

These 15" speakers have ceramic type magnets which give maximum sensitivity for minimum overall height. The larger flux densities give a greater efficiency for a given input power.

All these models have robust cast aluminium chassis. The main cone is of straight section with circular ribs to prevent formation of harmonics and gives high power handling without distortion

Models 152/12, 152/14 and 152/17 are designed as bass units for Hi-Fi systems and are also very suitable for the bass or rhythm electric guitar.

Models 152/12a, 152/14a and 152/17a are fitted with aluminium voice coils and a special twin cone assembly which gives a full range audio response very suitable for public address or the lead guitar.

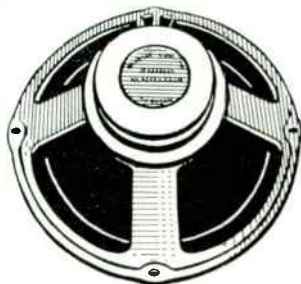
All these models are constructed with an extremely robust voice coil assembly which will withstand the heaviest load conditions such as are caused by the use of the tremolo with the electric guitar.

FANE 12" HEAVY-DUTY LOUDSPEAKERS

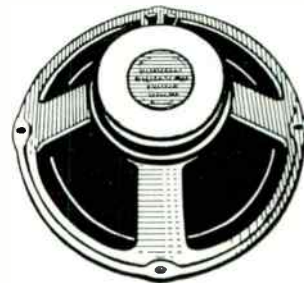
MODELS 122 — 2" VOICE COILS — CERAMIC MAGNETS



MODELS 122/12 & 122/12a



MODELS 122/14 & 122/14a



MODELS 122/17 & 122/17a

	Model 122/12	Model 122/12a	Model 122/14	Model 122/14a	Model 122/17	Model 122/17a
Diameter of magnet pole	2"	2"	2"	2"	2"	2"
Flux density gauss	12,000	12,000	14,000	14,000	17,000	17,000
Total Flux maxwells	160,000	160,000	186,000	186,000	226,000	226,000
Power handling—watts R.M.S.	20	20	22	22	25	25
Voice coil winding	Copper	Aluminium	Copper	Aluminium	Copper	Aluminium
Cone	Single	Twin	Single	Twin	Single	Twin
Frequency response—cps	25-5000	30-15000	25-5000	30-15000	25-6000	30-17000
Input impedance—ohms	15	15	15	15	15	15
Main resonance—cps	30	30	30	30	30	30
Chassis diameter	12" diameter—12 $\frac{3}{8}$ " over mounting lugs					
Mounting holes	4 holes $\frac{1}{4}$ " diam. on pitch circle 11 $\frac{3}{4}$ " diam.					
Baffle hole	11" diameter					
Overall height	4 $\frac{1}{2}$ "	4 $\frac{1}{2}$ "	4 $\frac{1}{8}$ "	4 $\frac{1}{8}$ "	4 $\frac{7}{8}$ "	4 $\frac{7}{8}$ "
Nett Weight—lbs.	6	6	7	7	10 $\frac{1}{2}$	10 $\frac{1}{2}$
Carriage 7/6 per speaker	£7 2 6	£7 16 0	£8 19 6	£9 12 0	£10 17 0	£11 10 6

These 12" speakers have ceramic type magnets which give maximum sensitivity for a minimum overall height. The larger flux densities give a greater efficiency for a given input power.

All these models have robust cast aluminium chassis. The main cone is of curved section and is mounted with a foam rubber surround resulting in high power handling without distortion.

Models 122/12, 122/14 and 122/17 are designed to be the bass units of Hi-Fi systems and are also very suitable for the bass or rhythm electric guitar.

Models 122/12a, 122/14a and 122/17a are fitted with aluminium voice coils and a special twin cone assembly which gives a full range audio response which is very suitable for public address or the lead guitar.

All these models are constructed with an extremely robust voice coil assembly which will withstand the heaviest load conditions such as are caused by the use of the tremolo with electric guitar.

FANE 12" HEAVY DUTY LOUDSPEAKERS

MODELS 122/10 & 122/10A



The Model 122/10 is normally supplied with a main resonance of 40 cps for use as a bass reproducer. It can be supplied, on request, with a cone giving a resonance of 70 cps which is very suitable for the rhythm electric guitar.

The Model 122/10a is normally supplied with a main resonance of 40 cps for use as a full range speaker. It can also be supplied with a cone giving a resonance of 70 cps when it is very suitable for the lead electric guitar.

Both models are built with robust cast aluminium chassis, and can be supplied to special request with bi-filar wound voice coils giving a 4 ohms input impedance without the usual loss in efficiency.

	Model 122/10	Model 122/10a
Diam. of Magnet Pole	2"	2"
Flux density of Magnet gauss	10,000	10,000
Total lines	100,000	100,000
Power Handling watts	20	20
Frequency response cps	30-5,000	30-15,000
Input Impedance ohms	15	15
Main Resonance cps	40	40
Voice Coil Winding Material	Copper	Aluminium
Cone	Single	Dual
Max. overall diameter	12 $\frac{3}{8}$ "	12 $\frac{3}{8}$ "
Height	4 $\frac{3}{8}$ "	4 $\frac{3}{8}$ "
Mounting	4 holes $\frac{1}{4}$ " diam. on pitch circle 11 $\frac{3}{4}$ " diam.	
Baffle hole diam.	11"	11"
Net Weight lbs.	5	5
Price	£5.8.10	£6.2.6



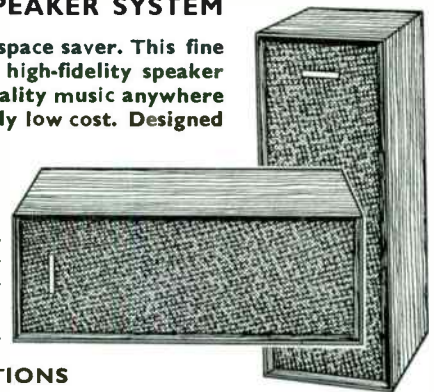
FOSTER FCS 104/2 SPEAKER SYSTEM

An outstandingly compact 8-watt speaker system with excellent realism throughout its frequency range of 95-20,000 Hz due to a ceramic high compliance main unit and a 2" tweeter. The cabinet measures 9 $\frac{3}{4}$ " x 6 $\frac{1}{2}$ " x 6 $\frac{3}{8}$ ", is craftsman finished in oiled walnut with a lurex woven grille, and is ideal for bookcase and table-top location. Polarised screw speaker connections. 8 ohms impedance.

PRICE £8.19.6

SONICS MODEL AS-57 EXTENDED RANGE MINIATURE HI-FI SPEAKER SYSTEM

The AS-57 is the compact space saver. This fine extended range miniature high-fidelity speaker system will provide fine quality music anywhere in your home at remarkably low cost. Designed for use where space is at premium, the AS-57 system is ideal for the small apartment or isolated listening area. A special high efficiency 5"x7" full range speaker is set in a beautifully designed and finished hand rubbed walnut enclosure.



TECHNICAL SPECIFICATIONS

Speaker Complement: 5" x 7" oval-type full-range speaker.
 Power Handling Capacity: 10 watts (music power)
 Voice Coil Impedance: 8 ohms
 Frequency Response: 70-18,000 Hz
 Enclosure Dimensions: 5 $\frac{7}{8}$ " wide, 15 $\frac{3}{8}$ " high, 8 $\frac{1}{4}$ " deep

£13.10.0 PAIR Carr. 10/-

COMPLETE HIGH FIDELITY LOUDSPEAKER SYSTEMS

ELEGANZIA II



even public recitals in smaller halls where High Fidelity is demanded.

Since its introduction the ELEGANZIA II has proved to be the most sought-after slim-style High Fidelity loudspeaker system. The smoothness of its performance, combined with its fantastically shallow dimension ONLY 6¼" deep (front to back) make the ELEGANZIA II an ideal loudspeaker system for even the smallest living room (or even two for stereo). The generous power handling capacity caters equally well for large rooms or

Dignified simplicity in styling is combined with an ease and accuracy of reproduction that is at once stimulating, without over-emphasis, and deeply satisfying.

Inside this intriguing enclosure are two loudspeakers, each the result of many months' careful development directed towards the production of bass and treble units specifically for operation in a very shallow enclosure. The 12" bass unit has a composite diaphragm employing an inert plastic which fulfils two functions: it provides the felted fibre piston with elements of distributed mechanical resistance and the additional mass required for the correct diaphragm behaviour in this mass controlled system. In addition, it forms the diaphragm edge suspension and allows very large linear excursion with perfect diaphragm termination. An extra long voice coil to maintain constant drive conditions at high amplitude and a deep roll centre suspension complete the moving assembly, which is mounted in a super-slim diecast chassis that has been designed and produced specially for this reproducer. Finally the chassis contains a powerful Feroba II magnet system, operating at a maximum efficiency. At 900 Hz an L.C. cross-over network transfers the electrical drive to an entirely new back-loaded mid-range and high-frequency unit, whose plastic suspended and terminated diaphragm is housed in a die-cast frame specifically produced for this system. The terminal board is flush mounted so that the ELEGANZIA II can be placed flat against the wall if desired.

Both loudspeakers are sealed in the enclosure so that the bass diaphragm operates on an 'air cushion' which forms a large part of the total suspension stiffness, another factor in the remarkably low distortion characteristics of this reproducer.

Specification

Dimensions: 27" high × 20" wide × 6¼" deep (68.9 × 50.8 × 15.9 cm.)

Frequency Range: 35–15,000 Hz

Maximum Power Handling Capacity: 15 watts

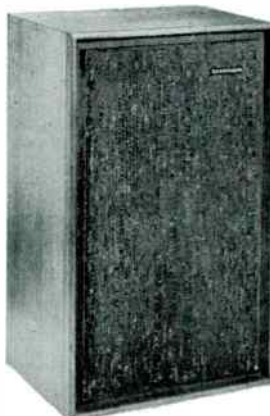
Impedance: 15–16 ohms

Finishes available to order: Teak or Walnut

Price: £25 10 0 Carr 10/-

MAGNUM-K

The MAGNUM-K is designed to a very high standard—it was originally developed for professional monitoring studios. It now brings this standard to the audio enthusiast at home.



It is a three-speaker no-compromise loudspeaker system, exceptionally versatile—both middle- and high-frequency units are adjustable by two attenuators mounted in the back, and able to handle up to 25 watts of power.

The bass speaker is a specially developed 12", the mid-range a precisely controlled-characteristic direct radiator, and the high-frequency unit is an outstandingly smooth precision-built back-loaded speaker.

The handsome dignified enclosure is finely finished in teak or walnut to order and is solidly built and well damped.

This is the loudspeaker system for the connoisseur.

Specification

Dimensions: 15" × 24" × 11¼" deep (38 × 61 × 28.5 cm.)

Frequency Range: 30–20,000 Hz

Maximum Power Handling: 25 watts

Impedance: 4–8 ohms

Finish: Teak or Walnut to order

Price: £29 19 6 Carr 10/-

MEZZO II

MEZZO II is the M-range bookshelf loudspeaker system. Only 9" deep it fits into any bookcase with distinction.

MEZZO contains a specially developed 12" long-throw bass unit and a sealed-back 4" treble unit, this last is attenuator controlled by a flush-mounted control in the back panel. The frequency range is a clear and clean 40–20,000 Hz, smooth and powerful. It handles 15 watts (30 watts U.S.A.) and has an impedance of 8 ohms.



The MEZZO's appearance is impeccable, restrained yet distinctive and available in either teak or walnut finish to order. It can be used horizontally or upright.

The very low distortion figures make listening fatigue a thing of the past. It is—in truth—the loudspeaker to live with.

Specification

Dimensions: 12" × 19½" × 9" deep (30.5 × 48.3 × 22.9 cm.)

Frequency Range: 40–20,000 Hz

Power Handling: 15 watts r.m.s.

Impedance: 8 ohms

Cross-over: 2000 Hz

Attenuator: Controlling high frequencies—flush fitted into back panel.

Finish: Teak or Walnut to order

Price: £20 0 0 Carr 10/-

GOODMANS HI-FI SPEAKERS

TWIN AXIOM 10

The Twinaxiom 10 is the choice of the man who can afford—and has the room for—a larger speaker than the Twinaxiom 8, but does not need, or has not space for, one of the larger and more powerful 12" systems. Twinaxiom 10 possesses a highly efficient magnet system in Ferroba II anisotropic ceramic material and plastic-terminated diaphragm with curvilinear form. The chassis is a diecast precision-built housing combining strength with elegance.

The Twinaxiom 10 loudspeaker is for use in sealed enclosures with internal volumes of 1,500 to 4,000 cubic inches. The larger enclosures give an extension to the lower bass output, as shown in the performance response curves.

The Twinaxiom 10 is capable of handling the full output of music programme material from amplifiers with 15-watt (RMS) rating, but the sensitivity is such that an adequate listening volume is obtained when used with equipment rated 4-5 watts.

Specification

Frequency Range: 40-18,000 Hz
 Maximum Power-handling Capacity: 15 watts
 Fundamental Resonance: 40 Hz
 Flux Density: 13,500 gauss
 Total Flux: 53,000 maxwells
 Voice Coil: 1" (2.54 cm.) dia.
 Impedance: 8 ohms or 15-16 ohms
 Chassis: Diecast
 Overall Diameter: $10\frac{1}{2}$ " (26.6 cm.)
 Overall Depth: $4\frac{7}{8}$ " (10.9 cm.)
 Baffle Hole Diameter: $8\frac{1}{2}$ " (21.6 cm.)
 Fixing Holes: 4 holes $\frac{1}{4}$ " (0.6 cm.) diameter equally spaced on a circle of $9\frac{3}{8}$ " (24.4 cm.) diameter.

Price: £7.10.6 (£7-52½) Carr. 7/6 (37½p)



AXIETTE 8 8"—6 watts—15 ohms or 8 ohms

The Axiette 8 is the smallest real High Fidelity loudspeaker unit made, and features a high efficiency permanent magnet system using Ferroba II anisotropic ceramic magnet material, enabling a particularly shallow depth magnet assembly to be used. The unique plastic terminated hyperbolic diaphragm, drive coil and magnet system are housed in a precision diecast chassis of strong and slender design. Enclosure volume requirement—only 3,000 cubic inches. This is an ideal speaker for compact high fidelity installations—whether monophonic or stereophonic. (Use two Axiette 8's [each in its own cabinet] for stereo.)

Specification

Frequency Range: 40-15,000 Hz
 Maximum Power-handling Capacity: 6 watts (12 watts U.S.A.)
 Fundamental Resonance: 65 Hz
 Flux Density: 13,500 gauss
 Total Flux: 53,000 maxwells
 Voice Coil: 1" (2.54 cm.) dia.
 Impedance: 15-16 ohms or 8 ohms
 Chassis: Diecast
 Overall Diameter: $8\frac{3}{8}$ " (21 cm.)
 Overall Depth: $3\frac{3}{8}$ " (9.2 cm.)
 Reflex Enclosure Volume (internal): 3,000 cu. ins.
 Baffle Hole Diameter: 7" (17.8 cm.)
 Fixing Holes: 4 holes $\frac{3}{32}$ " (0.7 cm.) dia. equally spaced on a circle of $7\frac{3}{8}$ " (19.4 cm.) diameter
 Nett Weight: 4 lbs. (1.81 kg.)

Price: £5.19.3 (£5-96) Carr. 7/6 (37½p)



TWINAXIETTE 8 8"—6 watts—15 ohms or 8 ohms

The TwinAxiette 8 is a twin-diaphragm version of the Axiette 8—the smallest High Fidelity loudspeaker unit made. It has all the advantages of the Axiette 8 coupled with the extended frequency range provided by the high stability inner cone. The unique bass cone is plastic terminated and hyperbolic, the housing is a heavy non-resonant precision diecast chassis. Enclosure volume needed is only 3,000 cubic inches making it an ideal reproducer for compact high fidelity systems whether monophonic or stereophonic.

Specification

Frequency Range: 40-18,000 Hz
 Maximum Power-handling capacity: 6 watts (12 watts U.S.A.)
 Fundamental Resonance: 65 Hz
 Flux Density: 13,500 gauss
 Total Flux: 53,000 maxwells
 Voice Coil: 1" (2.54 cm.) dia.
 Impedance: 15-16 ohms or 8 ohms
 Cross-over: Mechanical at 2,000 Hz
 Chassis: Diecast
 Overall Diameter: $8\frac{3}{8}$ " (21 cm.)
 Overall Depth: $3\frac{3}{8}$ " (9.2 cm.)
 Reflex Enclosure Volume (internal): 3,000 cu. ins.
 Baffle Hole Diameter: 7" (17.8 cm.)
 Fixing Holes: 4 holes $\frac{3}{32}$ " (0.7 cm.) dia. equally spaced on a circle of $7\frac{3}{8}$ " (19.4 cm.) dia.
 Nett Weight: 4 lbs. (1.81 kg.)

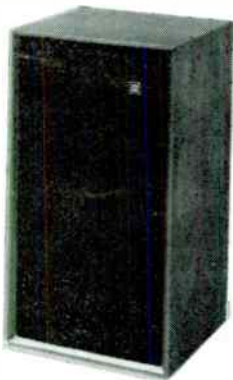
Price: £6.14.7 (£6.73) Carr. 7/6 (37½p)



GOODMANS NEW MINISTER HI-FI LOUDSPEAKER SYSTEM

Power Handling: 20 watts.
 Frequency Range: 45-22,000 Hz.
 Impedance: 4-8 ohms.
 Finish: Teak or walnut to order.

£35.18.0 Carr. 10/-



A beautiful presentation in a cabinet only 19" x 10½" x 10", and provides a fidelity and reserve of power handling ability normally found only in more expensive systems. The secret is in the newly developed bass and treble systems. The bass speaker employs Goodmans patented plastic suspended diaphragm which provides exceptionally deep, distortion-free bass reproduction. At the treble end, another unique Goodmans design, a new dome radiator, reproduces the upper register up to and beyond the limit of human hearing with unparalleled precision, and wide angular dispersion of sound.

GOODMANS HI-FI SPEAKERS

AXIOM 10 10"—10 watts—15 ohms or 8 ohms

The Axiom 10 is the choice of the man who can afford—and has the room for—a larger speaker than the Axiote 8, but does not need, or has not space for one of the larger and more powerful 12" systems. Axiom 10 possesses a highly efficient magnet system in Feroba II anisotropic ceramic magnet material, plastic terminated diaphragm with hyperbolic form and aluminium voice coil. The chassis is a diecast precision-built housing combining strength with elegance. The power handling is 10 watts, and the enclosure volume required is only 5,000 cubic inches; with these advantages this loudspeaker is a very satisfactory and economical unit for all medium-sized domestic High Fidelity assemblies.



Specification

Frequency Range: 40–15,000 Hz
 Maximum Power-handling Capacity: 10 watts (20 watts U.S.A.)
 Fundamental Resonance: 45 Hz
 Flux Density: 13,500 gauss
 Total Flux: 53,000 maxwells
 Voice Coil: 1" (2.54 cm) dia.—aluminium
 Impedance: 15–16 ohms
 Chassis: Diecast
 Overall Diameter: 10 $\frac{1}{2}$ " (26.6 cm)
 Overall Depth: 4 $\frac{1}{8}$ " (10.9 cm)
 Reflex Enclosure Volume (internal): 5,000 cu. ins.
 Baffle Hole Diameter: 8 $\frac{1}{2}$ " (21.6 cm)
 Fixing Holes: 4 holes $\frac{1}{4}$ " (0.6 cm) dia. equally spaced on a circle of 9 $\frac{3}{8}$ " (24.4 cm) dia.
 Net Weight: 4 lbs. 12 oz. (2.16 kg)
 Price: £7.0.11 (£7.04 $\frac{1}{2}$) Carr. 5/- (25p)

AXIOM 80 9 $\frac{1}{2}$ "—6 watts—15 ohms or 8 ohms

A twin-cone transducer capable of the highest accuracy of sound reproduction at medium power levels. The moving assembly is 'free-edged', suspended on two sets of double-acting cantilevers which provide extremely low and linear axial stiffness combined with strong radial centring action. The Axiom 80 employs a cast chassis and suspension frame, and a highly efficient ring magnet system. Hand built throughout. Note that 2 or 4 Axiom 80 units may be used for higher power applications. Enclosure designs for 1 and 2 units are shown below. Designs for 4 units available upon request.

Specification

Frequency Range: 20–20,000 Hz
 Maximum Power-handling Capacity: 6 watts (12 watts U.S.A.)
 Fundamental Resonance: 20 Hz
 Flux Density: 17,000 gauss
 Total Flux: 62,000 maxwells
 Voice Coil: 1" (2.54 cm) dia.
 Impedance: 15 ohms
 Chassis: Diecast
 Overall Diameter: 9 $\frac{1}{2}$ " (24.1 cm)
 Overall Depth: 6 $\frac{3}{8}$ " (16.2 cm)
 ARU Enclosure: see below
 Baffle Hole Diameter: 8 $\frac{1}{2}$ " (20.9 cm)
 Fixing Holes: 4 holes $\frac{1}{4}$ " (0.6 cm) dia. equispaced on a circle of 8 $\frac{3}{4}$ " (22.5 cm) dia.
 Nett Weight: 9 lbs. 7 ozs. (4.2 kg)
 Price £21.0.0 (£21.00) Carr. 7/6 (37 $\frac{1}{2}$ p)

AXIOM 201 12"—15 watts—15 ohms or 8 ohms

The Axiom 201 is specially designed for the Audio enthusiast who insists upon a 12" loudspeaker for its extended range, rich true bass, and very low distortion, but does not need the high power handling and efficiency of the Axiom 301. This remarkable twin diaphragm 12" unit has smooth performance from 30–16,000 Hz and can be used with amplifiers up to 15 watts. (continued in next column)

AXIOM 301 12"—20 watts—15 ohms or 8 ohms

The latest model of the world's most popular 12" High Fidelity Twin Cone loudspeaker incorporates a highly efficient permanent magnet system using Feroba II anisotropic ceramic material. A very low level of distortion and exceptionally smooth and extended response is obtained from twin diaphragms specially terminated to prevent standing waves and spurious resonances.

The Axiom 301 is ideal for single unit loudspeaker systems and is the recommended first step in the stage-built system.

Both models have an all-plastic suspension for extra flexibility, linearity with strength, and extended high frequency response, powerful Feroba II magnetic assembly, and is mounted in a new and striking diecast chassis of great strength combined with a slender and open profile; the construction is fully dustproof.

Suitable for stereophonic or monophonic installations.



Specification

Frequency Range:
 Maximum Power-handling Capacity:

Fundamental Resonance:
 Flux Density:
 Total Flux:

Overall Depth:

Nett Weight:

Prices:

Axiom 201
 30–16,000 Hz

15 watts
 (30 watts
 U.S.A.)
 35 Hz
 13,000 gauss
 87,500
 maxwells

5 $\frac{3}{8}$ "
 (14.8 cm.)
 8 lbs. 8 ozs.
 £10.1.9
 (£10.09)
 Carr. 10/-
 (50p)

Axiom 301
 30–16,000 Hz

20 watts
 (40 watts
 U.S.A.)
 35 Hz
 16,500 gauss
 185,000
 maxwells

6 $\frac{1}{4}$ "
 (15.9 cm.)
 14 lbs. 15 ozs.
 £14.5.9
 (£14.29)
 Carr. 10/-
 (50p)

Both Models

Voice Coil: 1 $\frac{3}{8}$ " (4.4 cm.) dia.
 Impedance: 15–16 ohms or 8 ohms
 Chassis: Diecast
 Overall Diameter: 12 $\frac{1}{4}$ " (31.2 cm.)
 ARU 172 Enclosure Volume (internal): 7,800 cu. ins.
 Baffle Hole Diameter: 11" (28 cm.)
 Fixing Holes: 4 holes 0.312" (0.8 cm.) dia. equally spaced on a circle of 11 $\frac{3}{4}$ " (29.8 cm.) dia.

GOODMANS ACOUSTICAL RESISTANCE UNITS (A.R.U.)

A.R.U. Model No.	Loudspeaker Type(s)	Enclosure Volume (cu. ins.)	A.R.U. Aperture Size
180	One Axiom 80	5,900	12" x 7" (30.5 x 18.8 cm.)
280	Two Axiom 80's One Audiom 81 Bass	8,300 9,600	14 $\frac{1}{2}$ " x 10" (36.8 x 25.4 cm.)
172	Axiom 201 Axiom 301 Audiom 51 Bass Audiom 61 Bass Triaxiom 212C Triaxiom 1220C	7,800	10 $\frac{1}{2}$ " x 10" (26.7 x 25.4 cm.)

Prices: £3.2.8 (£3.13 $\frac{1}{2}$) each Model

BASS UNITS FOR MULTIPLE SPEAKER HI-FI SYSTEMS

AUDIOM BASS units are designed to cover only the bass portion of the musical register and all the features necessary for providing very accurate performance down to the lowest musical frequencies encountered are incorporated in their design.

AUDIOM 51 BASS 12"—15 watts—15 ohms or 8 ohms

The Audiom 51 Bass is a rugged 12" single diaphragm unit handling up to 15 watts of power. It is specially designed for High Fidelity enthusiasts who need a 12" loudspeaker as the bass unit in their three-way systems but who do not need the high power-handling capacity and the extra high efficiency of the Audiom 61. The Audiom 51 Bass has a fundamental resonance of 35 Hz and is fitted with a powerful Feroba II magnet system giving high efficiency and control. Now fitted with extra strength plastic-edged cone for maximum flexibility, and a new rigid diecast chassis of open design, holding all parts in permanent alignment; connection is by means of binding posts.



Specification

Maximum Power-handling Capacity: 15 watts (30 watts U.S.A.)
 Fundamental Resonance: 35 Hz
 Flux Density: 13,000 gauss
 Total Flux: 87,500 maxwells
 Voice Coil: 1 $\frac{3}{8}$ " (4.4 cm.) dia.
 Impedance: 15-16 ohms or 8 ohms
 Chassis: Diecast
 Overall Diameter: 12 $\frac{1}{2}$ " (31.2 cm.)
 Overall Depth: 5 $\frac{3}{4}$ " (14.8 cm.)
 ARU 172 Enclosure Volume (internal): 7,800 cu. ins.
 Baffle Hole Diameter: 11" (28 cm.)
 Fixing Holes: 4 holes 0.312" (0.8 cm.) dia. equally spaced on a circle of 11 $\frac{3}{8}$ " (29.8 cm.) dia.
 Nett Weight: 8 lbs. 7 ozs. Price: **£9.2.3 (£9.11)**
 Carr. 10/- (50p)

AUDIOM 61 BASS 12"—20 watts—15 ohms or 8 ohms

The Audiom 61 is a very robust 12" single diaphragm unit handling up to 20 watts of power. It is fitted with a massive Feroba II magnet system giving exceptional efficiency and control. Now fitted with extra strength plastic-edged cone for maximum flexibility. With its low fundamental resonance of 35 Hz, it is the ideal choice as the Bass unit in a three-way system incorporating the Midax and Trebax (see page 75.) A new rigid diecast chassis of advanced design holds all parts in permanent and accurate alignment. Binding posts are fitted for rapid and secure connection.

Specification

Maximum Power-handling Capacity: 20 watts (40 watts U.S.A.)
 Fundamental Resonance: 35 Hz
 Flux Density: 16,500 gauss
 Total Flux: 185,000 maxwells
 Voice Coil: 1 $\frac{3}{8}$ " (4.4 cm.) dia.
 Impedance: 15-16 ohms or 8 ohms
 Chassis: Diecast
 Overall Diameter: 12 $\frac{1}{2}$ " (31.2 cm.)
 Overall Depth: 6 $\frac{1}{4}$ " (15.9 cm.)
 ARU 172 Enclosure Volume (internal): 7,800 cu. ins.
 Baffle Hole Diameter: 11" (28 cm.)
 Fixing Holes: 4 holes 0.312" (0.8 cm.) dia. equally spaced on a circle of 11 $\frac{3}{8}$ " (29.8 cm.) dia.
 Nett Weight: 14 lbs. 14 ozs. Price: **£13.4.0 (£13.20)**
 Carr. 10/- (50p)

Audiom 91 Standard. As Audiom 91 Bass but with Fundamental Resonance (Nominal): 55 Hz

AUDIOM 81 BASS 15"—25 watts—15 ohms or 8 ohms

The Audiom 81 Bass is a rugged 15" single diaphragm Bass unit of new heavy-duty construction and handling up to 25 watts. It is fitted with a massive Feroba II magnet system and 3" voice coil thus combining a shallower assembly and up-to-the-minute styling with exceptional ruggedness in use and the ability to handle high power. The rigid diecast chassis is of exceptional strength. The all-plastic cone edge gives maximum flexibility with enormous strength. Binding posts are fitted for rapid and secure connection.



Specification

Maximum Power-handling Capacity: 25 watts (50 watts U.S.A.)
 Fundamental Resonance: 30 Hz
 Flux Density: 14,000 gauss
 Total Flux: 269,000 maxwells
 Voice Coil: 3" (7.6 cm.) dia.
 Impedance: 15-16 ohms
 Chassis: Diecast
 Overall Diameter: 15 $\frac{1}{8}$ " (38.2 cm.)
 Overall Depth: 7 $\frac{7}{8}$ " (19.9 cm.)
 ARU 280 Enclosure Volume (internal): 9,600 cu. ins.
 Baffle Hole Diameter: 13" (33 cm.)
 Fixing Holes: 8 holes $\frac{3}{8}$ " (0.71 cm.) dia. on a circle of 14 $\frac{3}{8}$ " (36.51 cm.) dia.
 Nett Weight: 22 lbs. 8 ozs. (10.2 kg.)
 Price: **£22.4.9 (£22.24)** Carr. 12/6 (62 $\frac{1}{2}$ p)

AUDIOM 91 BASS—15 ohms or 8 ohms

For use in very high-powered High Fidelity SYSTEMS—(cinemas and concert halls, for example)—and in specialised applications such as Electronic Organs. The Audiom 91 is an exceptionally robust 18" single diaphragm heavy-duty loudspeaker of massive construction handling up to 50 watts of power. It possesses a massive Feroba II magnet system, 3" voice coil, combining a shallower assembly and sleek styling with exceptional structural strength and power-handling ability. The chassis is a rigid casting built to endure punishing conditions. Insulated binding posts are fitted for rapid and secure connections.

Specification

Maximum Power-handling Capacity: 50 watts (100 watts U.S.A.)
 Fundamental Resonance (nominal) High Fidelity and Electronic Organs: 30 Hz
 Flux Density: 14,000 gauss
 Total Flux: 269,000 max wells
 Voice Coil: 3" (7.6 cm.) dia.
 Impedance: 15-16 ohms
 Chassis: Diecast
 Overall Diameter: 18 $\frac{1}{8}$ " (45.85 cm.)
 Overall Depth: 8 $\frac{1}{4}$ " (21 cm.)
 ARU 480 Enclosure Volume (internal): 11,700 cu. ins.
 Baffle Hole Diameter: 16 $\frac{1}{4}$ " (41.28 cm.)
 Fixing Holes: 8 holes $\frac{7}{8}$ " (0.79 cm.) dia. on a circle of 17 $\frac{1}{4}$ " (43.82 cm.) dia.
 Nett Weight: 20 lbs. 4 ozs. (9.185 kg.)
 Price: **£25.4.0 (£25.20)** Carr. 15/- (75p)



GOODMANS MID-RANGE AND HIGH FREQUENCY UNITS FOR MULTIPLE SPEAKER HI-FI SYSTEMS

The pressure-driven horn-loaded loudspeakers shown on this page have been designed specifically for use with Audiom Bass units to form very low-distortion multiple-unit High Fidelity Loudspeaker Systems. The 12" Axioms are equally suitable as bass units and should be used if you are 'stage-building' your system. If a two-way system *only* is required choose an Axiom loudspeaker to be used with one of the Trebax High Frequency Units.

The 'system power handling capacity' figures shown below

imply that the units can be incorporated (with the necessary crossovers—this page) in multiple systems of this power. Trebax and Midax units have a very high sensitivity so that if required they may be used with horn-loaded bass units. However, it is more usual to use them with direct radiator bass loudspeakers such as the Audiom series. In these cases some attenuation of the inputs to the Trebax and Midax will be necessary to give a flat overall response. The attenuator has been specially designed for this purpose.

TREBAX HIGH FIDELITY PRESSURE UNITS



TREBAX 100. A very high efficiency horn-loaded pressure driven High Frequency unit designed to cover the treble register with complete freedom from irregularities in response, and with very low distortion. Trebax is a precision instrument, incorporating a self-centering coil and diaphragm assembly complete with plug connector. The frequency range is from 2,500 Hz to 20,000 Hz. To allow the proper overlap region the crossover frequency should be placed at 5 kHz.

Specification

Frequency Range: 2,500–20,000 Hz
Crossover Frequency: 5,000 Hz
System Power Handling Capacity: 25 watts
(50 watts U.S.A.)

Impedance: 15 ohms at 10 kHz
Baffle Hole Diameter: 1 7/8" (4.8 cm)
Fixing Holes (Horn Flange): 3 holes 0.156" (0.4 cm) diameter equally spaced on a circle of 2 1/2" (5.7 cm) diameter
£6.0.0 (£6-00) P&P 4/- (20p)

Trebax, and then to connect the existing unit to the terminals marked 'Bass' on the Trebax.

Specification

Frequency Range: 2,500–20,000 Hz
Crossover Frequency: 5,000 Hz (built in network)
System Power Handling Capacity: 20 watts max.
Impedance: 15 ohms at 10 kHz

Construction of Driver: Aluminium diaphragm and voice coil with integral air chamber in removable self-aligning assembly

Baffle Cut-out: 1 3/4" x 2 3/8" (2.9 x 6.0 cm)
Attenuator Fixing: 3 holes, 0.156" (0.4 cm) diameter equally spaced on a circle of 2 1/2" (6.3 cm) diameter
Attenuator Cut-out: 2 7/8" (5.5 cm) diameter
£6.15.0 (£6-75) P&P 5/- (25p)

TREBAX 5K/20XL. A high frequency pressure driven horn-loaded High Frequency unit with built-in (twin 1/2-section L.C.) cross-over network, ready wired, complete with 15 ohm L-pad on 2 ft. (61 cm) cable. The Trebax 5K/20XL has a frequency coverage of 2,500 Hz to 20,000 Hz and may be used in systems handling up to 20 watts (maximum). The cross-over frequency of the built-in network is 5,000 Hz.

To add the unit to any existing loudspeaker system (e.g. Axiom 10,201 etc.) it is only necessary to transfer the input leads on the existing loudspeaker to the terminals marked 'Input' on the



MIDAX MID-RANGE PRESSURE DRIVEN HORN UNIT



This unit is the correct choice when the major advantages of a horn-loaded middle register loudspeaker are required (i.e. freedom from distortion, smoothness of response, and high efficiency.)

The total frequency range covered by the Midax 650 is 650 Hz to 8 kHz; to make a proper allowance for the overlap regions cross-over frequencies should be 950 Hz and 5 kHz. The horn is an attractive and sturdy diecasting; reliable plug and socket connections are provided, and an easily replaced self centring diaphragm is fitted.

Specification

Frequency Range: 650–8,000 Hz
Frequencies: 950 and 5,000 Hz
System Power Handling Capacity: 25 watts
(50 watts U.S.A.)

Impedance: 15 ohms
Baffle Cut-out: 5 3/8" x 2 7/8" (14.3 x 6.5 cm) with 7/8" (0.79 cm) radii at corners

Fixing Holes (Horn Flange): 6 holes, 0.191" (0.4 cm) diameter

Overall Length: 9 1/2" (25.3 cm)
£9.0.9 (£9-04) P&P 6/- (30p)

ATTENUATOR



VARIABLE, 12 dB 8-Step. This accessory is designed for use with the Midax and Trebax units to enable easy and accurate balancing of the two-way or three-way systems. The attenuator is of the constant impedance type, so that at all settings it will present an impedance of 15 ohms at its input, when connected to a 15-ohm load, such as the Midax or Trebax. It is variable in eight steps as follows: 0 dB, 2 dB, 4 dB, 6 dB, 8 dB, 10 dB, 12 dB and off. In the 'off' position (fully anti-clockwise) the loudspeaker under control is switched off altogether and a dummy load automatically replaces it to maintain correct matching. This position is useful when checking the operation of the various loudspeaker units in a multiple system. In the system described above, the setting of the attenuators for level response will normally lie between the 2 dB and 8 dB positions, depending on

the choice of bass units. There is thus effectively a facility for 'boost' or 'cut' available with these controls. This enables a system to be adjusted to suit the characteristics of any particular room in which it may be used. There is also sufficient scope to allow for individual preferences and special requirements. Another useful feature lies in the ability of these controls to 'tailor' the response to an extreme degree as is often necessary, for example, when playing pre-electric recordings. In such cases it is often desirable to remove all response above 5 kHz; and this is easily done by switching the Trebax attenuator to the 'off' position.

The attenuator is supplied complete with knob and engraved escutcheon. (Cut-out required 2 7/8"–5.5 cm. dia.)

Price: £2.9.6 (£2-47 1/2)



XO/5000. A double half-section type cross-over network operating at 5 kHz, providing an attenuation of 12 dB/octave beyond this frequency. As indicated on

page 84, this network should be used when building up a two-way system, e.g. Trebax with either Axiom 201 or Axiom 301. The XO/5000 is housed in a moulded plastic case provided with easy flange fixing. All terminations are 15 ohms. £1.17.2 (£1-86)

XO/950. A double half-section type cross-over network, operating at 950 Hz with an attenuation of 12 dB/octave, beyond

this point. The XO/950 should be used when converting the two-way system to the three-way system. £5.3.4 (£5-16 1/2)

XO/950/5000. A multiple cross-over network comprising four half-section filters. Cross-over frequencies are 950 Hz and 5,000 Hz; all attenuation rates are 12 dB/octave. For use in three-way systems complete from the start and not in stages. It is housed

in a wooden case, provided with terminal block connectors, and a flange for easy mounting. All terminations are 15 ohms.
£6.16.4 (£6-81 1/2)

GOODMANS POWER RANGE LOUDSPEAKERS...

For professional use, where reliability has to compliment the *total* sound performance. The listed uses are typical, not an exhaustive *detailing*. Power Range Loudspeakers are found in such diverse situations as acoustic research, pest control and alarm systems.

MODEL 18P



£25.10.0 (£25-10)
Carr. 7/6 (37½p)

Nominal Power Rating: 100 watts
Fundamental Resonance (Typical): 45 Hz
Flux Density (Typical): 13,500 gauss
Voice Coil Diameter: 3" (76 mm.)
Impedance: 8 or 15 ohms
Overall Diameter: 18 1/8" (459 mm.)
Overall Depth: 8 3/8" (210 mm.)
Baffle Hole Diameter: 16 1/4" (413 mm.)
Fixing Holes: 8 holes 3/8" (8 mm.) dia., 17 1/4" (438 mm.) PCD
Nett Weight: 26 lbs. (9.3 kg.)
Suitable Sealed Enclosure Volume (per loudspeaker): 7,000 cu. ins. (120 lts.)

MODEL 15P



£15.0.0 (£15-00)
Carr. 7/6 (37½p)

Nominal Power Rating: 50 watts
Fundamental Resonance (Typical): 56 Hz
Flux Density (Typical): 15,000 gauss
Voice Coil Diameter: 1 3/8" (35 mm.)
Impedance: 8 or 15 ohms
Overall Diameter: 15 1/8" (383 mm.)
Overall Depth: 6 7/8" (183 mm.)
Baffle Hole Diameter: 13" (330 mm.)
Fixing Holes: 8 holes 3/8" (7 mm.) dia. on 14 3/8" (365 mm) PCD
Nett Weight: 15 lbs. 2 ozs. (6.9 kg.)
Suitable Sealed Enclosure Volume (per loudspeaker): 4,800 cu. ins. (80 lts.)

MODEL 12P



£9.5.6 (£9-27½)
Carr. 7/6 (37½p)

Nominal Power Rating: 50 watts
Fundamental Resonance (Typical): 85 Hz
Flux Density (Typical): 14,000 gauss
Voice Coil Diameter: 1 3/8" (35 mm.)
Impedance: 8 or 15 ohms
Overall Diameter: 12 1/4" (311 mm.)
Overall Depth: 6" (152 mm.)
Baffle Hole Diameter: 11" (279 mm.)
Fixing Holes: 4 holes 5/8" (8 mm.) dia. on 11 3/4" (298 mm.) PCD.
Nett Weight: 10 lbs. 12 ozs. (4.8 kg.)
Suitable Sealed Enclosure Volume (per loudspeaker): 3,000 cu. ins. (50 lts.)

MODEL 10P



£4.15.9 (£4-79)
Carr. 5/- (25p)

Nominal Power Rating: 15 watts
Fundamental Resonance (Typical): 85 Hz
Flux Density (Typical): 12,500 gauss
Voice Coil Diameter: 1" (25 mm.)
Impedance: 8 or 15 ohms
Overall Diameter: 10 3/8" (259 mm.)
Overall Depth: 3 3/8" (96 mm.)
Baffle Hole Diameter: 9" (229 mm.)
Fixing Holes: 4 holes 3/8" (7 mm.) dia. on 9 3/4" (237 mm.) PCD
Nett Weight: 2 lbs. 11 ozs. (1.2 kg.)
Suitable Sealed Enclosure Volume (per loudspeaker): 2,000 cu. ins. (30 lts.)

MODEL 8P



£4.8.0 (£4-40)
Carr. 5/- (25p)

Nominal Power Rating: 15 watts
Fundamental Resonance (Typical): 85 Hz
Flux Density (Typical): 12,500 gauss
Voice Coil Diameter: 1" (25 mm.)
Impedance: 8 or 15 ohms
Overall Diameter: 8 1/2" (204 mm.)
Overall Depth: 3 3/8" (95 mm.)
Baffle Hole Diameter: 7" (178 mm.)
Fixing Holes: 4 holes 3/8" (6 mm.) dia. on 7 3/8" (194 mm.) PCD
Nett Weight: 2 lbs. 8 ozs. (1.1 kg.)
Suitable Sealed Enclosure Volume (per loudspeaker): 1,300 cu. ins. (20 lts.)

KEF LOUDSPEAKERS

T15 Mk. 2 TWEETER

A wide range, low distortion high frequency radiator; fitted with exclusive hemispherical diaphragm made from aluminised Melinex, giving wonderfully smooth response to beyond 20,000 Hz with wide dispersion of the higher frequencies. The Mk. 2 has an improved acoustical circuit which ensures level response in the critical frequency range below 4 kHz.

£5.2.0 (£5.10)



Specification:

Size: 3½" dia. × 1½" deep.
 Weight: 2 lb. (1 kg).
 Impedance: 8-16 ohms.
 Max. Input: 6 watts continuous RMS above 1 kHz; 15 watts music rating.
 Flux Density: 12,000 oersted.
 Total Flux: 43,000 maxwells.
 Frequency Range: 800-20,000 Hz.
 Fundamental Resonance: 550 Hz.

T27 TWEETER

This new high-frequency unit is of the very latest design and gives the highest standard of performance so far achieved from a moving-coil device. The domed Melinex diaphragm is small enough to give a broad radiation pattern up to the highest audio frequency. The high-frequency response extends smoothly beyond 30 kHz. The T27 is beautifully engineered in a moulded plastic case with large ferrite magnet assembly.

£4.5.0 (£4.25)



Specification:

Size: 4½" dia. × 1½" deep.
 Weight: 1 lb. 6½ oz. (.64 kg).
 Impedance: 4-8 ohms.
 Max. Input: 6 watts continuous RMS above 3 kHz. 15 watts music rating.
 Flux Density: 12,500 oersted.
 Total Flux: 24,700 maxwells.
 Frequency Range: 3-30 kHz.
 Fundamental Resonance: 900 Hz.

B110

The newest speaker developed by KEF technicians suitable for use as a bass driver in 2-way or as a mid-range unit in 3-way systems. Long voice coil, highly compliant linear roll suspension plus Acoustilene diaphragm combine to give low harmonic distortion, minimum coloration and extra smooth response.

£7.11.7 (£7.58) Carr. 5/- (25p)



Specification:

Size: 5½" dia. × 3½" deep.
 Weight: 3 lb. 10 oz. (1.6 kg).
 Impedance: 4-8 ohms.
 Max. Input: 15 watts RMS.
 Flux Density: 12,000 oersteds.
 Total Flux: 64,000 maxwells.
 Frequency Range: 50-5,000 Hz.
 Fundamental Resonance: 35 Hz.

B139 Mk. 2 WOOFER

One of the most highly developed bass drivers in the world, the B139 is an ideal unit for compact systems. The aluminium stressed plastic diaphragm of the B139 gives complete freedom from transient distortion and break-up. The special shape of the diaphragm is designed to give very wide dispersion up to 1,000 Hz where the response is only 1 dB down at 45°, off axis. The Mark 2 version has a neoprene roll surround.

£9.15.6 (£9.77½) Carr. 10/- (50p)



Specification:

Size: 13" × 19½" × 3".
 Weight: 10 lb. (4.5 kg)
 Impedance: 8-16 ohms.
 Max. Input: 15 watts RMS.
 Flux Density: 10,500 oersted.
 Total Flux: 137,000 Maxwells.
 Frequency Range: 30-1,000 Hz.
 Fundamental Resonance: 25 Hz.



DN12

A 9-element printed circuit dividing network for use in combining the T27, B110 and B139. The crossover frequencies are approximately 300 and 4,000 Hz. Supplied with edge connector.

Specification:
 Size: 6½" × 2½" × 1½".
 Weight: 6½ oz.

£3.17.0 (£3.85)

DIVIDING NETWORKS

DN9

A 3-element printed circuit dividing network for use in combining the T27 with a suitable woofer having an impedance of 5-8 ohms. The crossover frequency is approximately 4 kHz.

Specification:
 Size: 2½" × 2½" × 1½".
 Weight: 2½ oz.

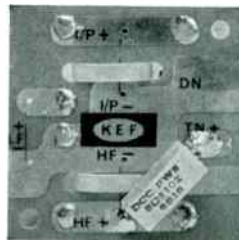
£1.5.6 (£1.27½)

DN8

A 3-element printed circuit dividing network for use in combining the B139 and T15 with crossover at 1 kHz.

Specification:
 Size: 2½" × 2½" × 1½".
 Weight: 3 oz.

£1.9.9 (£1.48)



KEF SPEAKER SYSTEMS

CRESTA

This is the ultimate in small speaker systems. Cresta gives reproduction which is quite outstanding for such a small cabinet; wide range, smooth and warm in tone. The thin quality which characterises most ultra-compact speakers is completely avoided.

(Packed in matched pairs.)

£36.10.0 (£36-50) Carr. 10/- (50p)



Size: 13" x 9" x 7" (33 x 23 x 18 cm)
 Weight: 14½ lb. (6.6 kg).
 Impedance: 4-8 ohms.
 Max. Input: 15 watts RMS, 30 watts music.
 System Resonance: 59 Hz.
 Internal Volume: 8.6 litres
 Frequency Range: 60-30,000 Hz.
 Fitted with L.F. unit type B.110 and H.F. unit type T.27 with 4 kHz dividing network.
 Cabinet finished in selected walnut or teak veneer and woven brown grille.

CELESTE Mk. 2

Two units of unique design are used to cover the entire frequency range. The bass driver employs a rigid flat diaphragm of foamed plastic stiffened by aluminium skins. This construction avoids the false coloration and variability of ordinary paper cones. A domed plastic radiator for the higher frequencies ensures smooth reproduction of strings and voices, completely free from harshness.

£22.10.0 (£22-50) Carr. 10/- (50p)



Size: 18" x 10½" x 6" (46 x 27 x 17 cm).
 Weight: 21 lb. (9.5 kg).
 Impedance: 8-16 ohms.
 Max. Input: 15 watts RMS; 30 watts music.
 System Resonance: 80 Hz.
 Frequency Range: 50-20,000 Hz.
 Fitted with separate B.139 Mk. 2 woofer, T.15 Mk. 2 tweeter and printed circuit crossover network. Finished in super grade hardwood veneer with a choice of oiled American walnut or teak, with coffee fleck Vynair grille.

CONCORD

Where space is not restricted, Concord provides reproduction of the highest quality with full, well-controlled bass, detailed mid-range and smooth sparkling treble. Two drive units are incorporated in a cabinet of great elegance and care has been taken to ensure that no false coloration is caused by the enclosure itself. It employs a special grade of acoustically transparent foam behind decorative aluminium mesh. The combination is visually opaque, but it introduces no audible colouration

£34.0.0 (£34-00) Carr. 10/- (50p)



Size: 24" x 15" x 9½" (61 x 38 x 25 cm).
 Weight: 37 lb. (17 kg).
 Impedance: 8-16 ohms.
 Max. Input: 25 watts RMS; 50 watts music.
 System Resonance: 45 Hz.
 Frequency Range: 40-20,000 Hz.
 Fitted with B.139 Mk. 2, T.15 Mk. 2 and printed circuit crossover network. Finished in selected hardwood veneers with a choice of French walnut or Burma teak, lustre black metal grille and trim bars.
 Adjustable Floor Stand (optional): £2.5.0

CONCERTO

Concerto is the latest addition to the KEF range. It has been designed for the enthusiast seeking a three-speaker system of professional quality but does not occupy an enormous space.

The new system employs the bass unit of the Concord with the medium and treble units of the Cresta, all happily wedded in a beautiful cabinet which is elegantly proportioned and carefully tuned to delight the eye and satisfy the ear. Concerto has all the desirable features of a fine loudspeaker—superbly rounded bass, smooth firm mid-range and sparkling well dispersed treble.

£41.19.6 (£41-97½) Carr. 10/- (50p)



Size: 28" x 17" x 12" (71 x 43 x 30 cm).
 Weight: 50 lb. (23 kg).
 Impedance: 4-8 ohms.
 Max. Input: 25 watts RMS; 50 watts music.
 System Resonance: 40 Hz.
 Frequency Range: 30-30,000 Hz.
 Cabinet finished in black American walnut or Burma teak with woven grille fabric. Fitted with B.139, B.110 and R.27 units and printed circuit dividing network.
 Adjustable Floor Stand (optional): £1.10.0

K2 Baffle

There are some applications for which the standard range of KEF cabinet models are unsuitable and a complete baffle assembly is a solution. The baffle is fitted with units and crossover network, wired and tested ready for installation in a cabinet or architectural recess. It is the same two-speaker system as used in the Concord, giving good results in enclosures of modest size at low cost.



Specification:

Size: 22½" x 13½" x 4" (57 x 34 x 10 cm).
 Weight: 20 lb. (9 kg).
 Impedance: 8-16 ohms.
 Max. Input: 15 watts RMS; 30 watts music.
 Frequency Range: 30-20,000 Hz.
 Fitted with B.139 and T.15 units and DNB printed circuit dividing network.

£20.8.0 (£20-40) Carr. 10/- (50p)

KELETRON HI-FI LOUDSPEAKERS



K1215/TC 12" 15 WATT

Specially designed for the audio enthusiast who requires an inexpensive 12" loudspeaker of high quality.

A remarkable twin cone 12" loudspeaker which has a smooth performance from 35-17,500 Hz and is suitable for all types of amplifiers up to 15 watts.

Constructed on a heavy duty cast chassis and incorporates a high efficiency anisotropic ferrite magnet, and a very low level of distortion and exceptionally smooth and extended response is obtained from the specially designed twin diaphragms.

Ideal for single unit loudspeaker systems, or can be used with a separate tweeter or mid-range unit. The construction is fully dustproof and is suitable for monophonic or stereophonic installations.

Specifications

Input Impedance: 8 or 15 ohms

Diam. of Magnet Pole: 1". Flux Density—Gauss: 11,000. Total Flux—Maxwells: 44,000. Power Handling—Watts RMS: 15 (30 watts peak). Voice Coil Winding: Copper. Cone: Twin. Frequency Response—Hz: 35-17,500. Main Resonance—Hz: 40. Chassis Diam.: 12" diam., 12 $\frac{3}{4}$ " over mounting lugs. Mounting Holes: 4 holes, $\frac{1}{4}$ " diam. on pitch circle 11 $\frac{1}{2}$ " diam. Baffle Hole: 11" diam. Overall Height: 4 $\frac{1}{2}$ ". Net Weight: 4 lbs. Connections: 5 screw terminals.

£4.17.6 Carr. 7/6

K1220/TC 12" 20 WATT

Identical in appearance to K1215/TC. Specially designed for the audio enthusiast who requires a 12" loudspeaker for its extended range and also its rich true base and very low distortion.

A remarkable twin-cone 12" loudspeaker which has a smooth performance from 30-18,000 Hz and can be used with amplifiers up to 20 watts.

This high fidelity twin-cone loudspeaker incorporates a high efficiency anisotropic ferrite magnet and a very low level of distortion and exceptionally smooth and extended response is obtained from the specially designed twin diaphragms. Ideal for single unit loudspeaker systems, or can be used with a separate tweeter or mid-range unit. The construction is fully dustproof and is suitable for monophonic or stereophonic installations.

Specifications

Input Impedance: 8 or 15 ohms

Diam. of Magnet Pole: 2". Flux Density—Gauss: 10,000. Total Flux—Maxwells: 100,000. Power Handling—Watts RMS: 20 (40 watts peak). Voice Coil Winding: Copper. Cone: Twin. Frequency Response—Hz: 30-18,000. Main Resonance—Hz: 40. Chassis Diam.: 12" diam., 12 $\frac{3}{4}$ " over mounting lugs. Mounting Holes: 4 holes, $\frac{1}{4}$ " diam. on pitch circle 11 $\frac{1}{2}$ " diam. Baffle Hole: 11" diam. Overall Height: 4 $\frac{1}{2}$ ". Net Weight: 5 lbs. Connections: 5 screw Terminals.

£5.19.6 Carr. 7/6

K1210/TC 12" 10 WATT

The K1210/TC is specially designed for the audio enthusiast who requires an inexpensive 12" loudspeaker of high quality.

The K1210/TC is a remarkable twin-cone 12" loudspeaker which has a smooth performance from 40-15,000 Hz and is suitable for all types of amplifiers up to 10 watts.

The K1210/TC is constructed on a heavy-duty cast chassis and incorporates a high-efficiency anisotropic ferrite magnet and a very low level of distortion and exceptionally smooth and extended response is obtained from the specially designed twin diaphragms.

The K1210/TC is ideal for single-unit loudspeaker systems, or can be used with a separate tweeter or mid-range unit (or both). The construction is fully dustproof and is suitable for mono or stereo installations.

Specifications

Input Impedance: 8 or 15 ohms

Diam. of Magnet Pole: 1". Flux Density—Gauss: 10,000. Total Flux—Maxwells: 40,000. Power Handling—Watts RMS: 10 (20 watts peak). Voice Coil Winding: Copper. Cone: Twin. Frequency Response—Hz: 40-15,500. Main Resonance—Hz: 40. Chassis Diam.: 12" diam., 12 $\frac{3}{4}$ " over mounting lugs. Mounting Holes: 4 holes, $\frac{1}{4}$ " diam. on pitch circle 11 $\frac{1}{2}$ " diam. Baffle Hole: 11" diam. Overall Height: 4 $\frac{1}{2}$ ". Net Weight: 4 lbs. Connections: Screw Terminals.

£3.19.6 Carr. 5/-

K126/TC 12" 5 WATT

The KELETRON K126/TC is a low-priced twin-cone loudspeaker which has been designed for the audio beginner or for those who want to use a 12" speaker on small amplifiers up to 5 watts RMS.

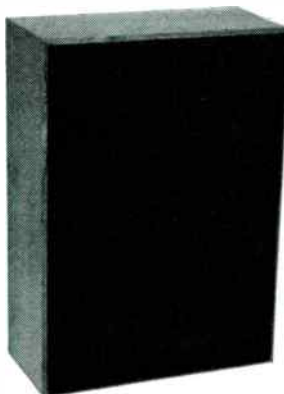
The KELETRON K126/TC can be used on all types of small amplifiers and is ideal for single-unit loudspeaker systems or can be used with a separate tweeter or mid-range unit (or both), and is suitable for mono or stereo installations.

Specifications

Input impedance: 3 or 15 ohms

Diam. of Magnet Pole: 1". Flux Density—Gauss: 6,000. Total Flux—Maxwells: 24,000. Power Handling—Watts RMS: 5 (10 watts peak). Voice Coil Winding: Copper. Cone: Twin. Frequency Response—Hz: 45-15,000.

47/6 Carr. 5/-



MODEL RWK 2 SPEAKER ENCLOSURE

Size: 21" x 11 $\frac{1}{2}$ " x 9 $\frac{3}{4}$ "

Teak finish.

Tested and approved by
RANK WHARFEDALE FOR
THE UNIT 3 SPEAKER
SYSTEM.

£10.10.0 Carr. 7/6

KELETRON HI-FI LOUDSPEAKERS

K1525/SC BASS 15" 25 WATT



Specially designed for high powered public address systems or for the hi-fi enthusiast who requires a large bass loudspeaker with very low distortion.

A remarkable 15" loudspeaker which has a smooth bass performance from 25-5,000 Hz and can be used with all types of amplifiers.

Incorporates a high efficiency anisotropic ferrite magnet and a very low level of distortion and exceptionally smooth response is obtained from the specially designed cone assembly.

The K1525/SC has a rigid die-cast chassis to withstand punishing conditions and is completely dustproof.

Ideally suitable for single or multiple unit loudspeaker systems when used for public address or with a suitable tweeter or mid-range unit (or both) when used for high fidelity audio systems. This loudspeaker can be used for monophonic or stereophonic installations.

N.B. This loudspeaker is suitable for BASS GUITARS.

Specifications

Diam. of Magnet Pole: 2". Flux Density—Gauss: 10,000. Total Flux—Maxwells: 100,000. Power Handling—Watts RMS: 24 (50 watts peak). Voice Coil Winding: Copper. Cone: Single. Frequency Response—Hz: 25-5,000. Input Impedance—Ohms: 15. Main Resonance—Hz: 32. Chassis Diam.: 15" diam., 15½" over mounting lugs. Mounting Holes: 4 holes ¼" diam. on pitch circle 14-67" diam. Baffle Hole: 13½" diam. Overall Height: 5½". Nett Weight: 20 lbs. Connections: Screw terminals.

£8.15.0 Carr. 7/6

K1220/PA 12" 20 WATT

The K1220/PA is specially designed for High Powered Public Address Systems or for the Hi-Fi enthusiast who requires a 12" BASS Loudspeaker with very low distortion.

The K1220/PA is a remarkable single-cone 12" loudspeaker which has a smooth performance from 70-10,000 Hz and can be used with amplifiers up to 20 watts.

The K1220/PA is a single-cone loudspeaker and incorporates high-efficiency anisotropic ferrite magnet and a very low level of distortion and exceptionally smooth and extended response is obtained from the specially designed single diaphragm.

The K1220/PA is ideal for single- or multi-unit loudspeaker systems, or can be used with a separate tweeter or mid-range unit (or both) when used for high-fidelity audio systems. The construction is fully dustproof and is suitable for mono or stereo installation.

N.B. This loudspeaker is NOT suitable for BASS GUITARS.

Specifications

Diam. of Magnet Pole: 2". Flux Density—Gauss: 10,000. Total Flux—Maxwells: 100,000. Power Handling—Watts RMS: 20 (40 watts peak). Voice Coil Winding: Copper. Cone: Single. Frequency Response—Hz: 70-1,000. Input Impedance—Ohms: 15 (4 or 8 ohms to order). Main Resonance—Hz: 70. Chassis Diam.: 12" diam., 12½" over mounting lugs. Mounting Holes: 4 holes ¼" diam. on pitch circle 11½" diam. Baffle Hole: 11" diam. Overall Height: 4½". Nett Weight: 5 lbs. Connections: Screw terminals.

£5.19.6 Carr. 5/-

K18/100 18" 100 WATT

Specially designed for high powered public address systems or for the hi-fi enthusiast who requires a large bass loudspeaker with very low distortion.

A remarkable 18" loudspeaker which has a smooth bass performance from 20-15,000 Hz and can be used with all types of amplifiers.

Incorporates a high efficiency anisotropic ferrite magnet and a very low level of distortion and exceptionally smooth response is obtained from the specially designed cone assembly.

The K18/100 has a rigid die-cast chassis to withstand punishing conditions and is completely dustproof.

Ideally suitable for single or multiple unit loudspeaker systems when used for public address or with a suitable tweeter or mid-range unit (or both) when used for high fidelity audio systems. This loudspeaker can be used for monophonic or stereophonic installations.

N.B. This loudspeaker is suitable for BASS GUITARS.

Specifications

Diam. of Magnet Pole: 3". Flux Density—Gauss: 14,500. Total Flux—Maxwells: 375,000. Power Handling—Watts RMS: 100 (200 watts peak). Voice Coil Winding: Copper. Cone: Single. Frequency Response—Hz: 20-5,000. Input Impedance—Ohms: 15. Main Resonance—Hz: 30. Chassis Diam.: 18" diam., 18½" over mounting lugs. Mounting Holes: 8 holes ¼" diam. on pitch circle 17½" diam. Baffle Hole: 16½" diam. Overall Height: 7½". Nett Weight: 22 lbs. Connections: Screw terminals.

19 Gns. Carr. 10/-

K1570/SC BASS 15" 70 WATT

The K1570/SC is specially designed for High Powered Public Address Systems or for the Hi-Fi enthusiast who requires a large bass loudspeaker with very low distortion.

The K1570/SC is a remarkable 15" loudspeaker which has a smooth bass performance from 25-5,000 Hz and can be used with all types of amplifiers.

The K1570/SC loudspeaker incorporates a high-power glass-fibre voice coil and a high-efficiency anisotropic ferrite magnet and a very low level of distortion and exceptionally smooth response is obtained from the specially designed cone assembly.

The K1570/SC has a rigid die-cast chassis to withstand punishing conditions and is completely dustproof.

The K1570/SC is ideally suitable for single- or multiple-unit loudspeaker systems when used for public address or with a suitable tweeter or mid-range unit (or both) when used for high-fidelity audio systems. This loudspeaker can be used for mono or stereo installations.

N.B. This loudspeaker is suitable for BASS GUITARS.

Specifications

Diam. of Magnet Pole: 2". Flux Density—Gauss: 17,000. Total Flux—Maxwells: 226,000. Power Handling—Watts RMS: 70 (140 watts peak). Voice Coil Winding: Copper. Cone: Single. Frequency Response—Hz: 25-5,000. Input Impedance—Ohms: 15 (4 or 8 ohms to order). Main Resonance—Hz: 32. Chassis Diam.: 15" diam., 15½" over mounting lugs. Mounting Holes: 4 holes ¼" diam. on pitch circle 14-67" diam. Baffle Hole: 13½" diam. Overall Height: 5½". Nett Weight: 22 lbs. Connections: Screw Terminals.

£15.15.0 Carr. 7/6

KELETRON HI-FI SPEAKER ENCLOSURES



The KELETRON range of High Fidelity Speaker Enclosures are designed on the Infinite Baffle principle, and will give a good frequency response over the normal audio range.

These cabinets are finished in polished teak with matching vynair grille, polished on all sides it can be used either upright or horizontally. Ideal for wall or shelf mounting.

N.B. The interior should be lined with 1" thick wadding or Bondacoust except speaker and tweeter aperture to obtain best results.

MODEL 65

This cabinet has been designed for housing all types of circular or square frame 6½" speakers and a 3" tweeter.

N.B. A 4" tweeter can be mounted in place of the 3" tweeter without impairing the frequency response.

Overall size of cabinet: Height 12½"; Width 7¾"; Depth 6½".
£4.4.0 (£4-20) Carr. 5/- (25p)

MODEL 8

This cabinet has been designed for housing all types of 8" speakers and a 3" tweeter.

N.B. A 4" tweeter can be mounted in place of the 3" tweeter without impairing the frequency response.

Overall size of cabinet: Height 17¼"; Width 10"; Depth 7¼".
£5.5.0 (£5-25) Carr. 7/6 (37½p)

MODEL 138

This cabinet has been designed for housing all types of E.M.I. 13" x 8" speakers.

Overall size of cabinet: Height 17¼"; Width 10"; Depth 7¼".
£5.5.0 (£5-25) Carr. 7/6 (37½p)

MODEL 1012

This cabinet has been designed for housing a 12" or 10" speaker and a 4" tweeter. A sub baffle board is supplied for fitting the 10" speaker.

Overall size of cabinet: Height 21"; Width 15"; Depth 7¼".
£7.10.0 (£7-50) Carr. 10/- (50p)

ALL CABINETS ARE SUPPLIED WITH THE NECESSARY SCREWS AND NUTS FOR MOUNTING SPEAKER UNITS, ETC.

KELETRON HI-FI SPEAKER SYSTEMS



MODEL KN.654/3

Three-way Speaker System employs a specially designed 6½" bass unit which has a 2½" parasitic tweeter built into the centre of the bass unit and a separate 3¾" treble unit and H.F. crossover network.

Specifications

Impedance: 4-8 ohms or 15-16 ohms. Power Handling: 5 watts RMS (10 watts peak). Frequency Range: 75-18,000 Hz. Finish: Polished Teak or Walnut. Size: 12½" x 7¾" x 6½".

£7.19.6 (£7-97½) Carr. 6/- (30p)

MODEL KN.824/3

Three-way Speaker System employs a specially designed 8" bass unit which has a high-efficiency anisotropic ferrite magnet with a 3½" parasitic tweeter built into the centre of the bass unit and a separate 4" treble unit and H.F. crossover network.

Specifications

Impedance: 4-8 ohms or 15-16 ohms. Power Handling: 7 watts RMS (14 watts peak). Frequency Range: 55-18,000 Hz. Finish: Polished Teak or Walnut. Size: 17¼" x 10" x 7¼".

£9.9.0 (£9-45) Carr. 10/- (50p)

MODEL KN.104/3

Three-way Speaker System employs a specially designed 10" bass unit which has a high-efficiency anisotropic ferrite magnet and two 4" treble units and H.F. crossover network.

Specifications

Impedance: 4-8 ohms or 15-16 ohms. Power Handling: 10 watts RMS (20 watts peak). Frequency Range: 55-18,000 Hz. Finish: Polished Teak or Walnut. Size: 21" x 11½" x 9¾".

£14.14.0 (£14-70) Carr. 10/- (50p)

MODEL KN.123/3

Three-way Speaker System employs a specially designed 12" bass unit which has a high-efficiency anisotropic ferrite magnet and two 4" treble units and H.F. crossover network.

Specifications

Impedance: 4-8 ohms or 15-16 ohms. Power Handling: 15 watts RMS (30 watts peak). Frequency Range: 35-18,000 Hz. Finish: Polished Teak or Walnut. Size: 21" x 15" x 7¼".

£16.16.0 (£16-80) Carr. 10/- (50p)

MODEL KN.120/4

Four-way Speaker System employs a specially designed 12" bass unit which has a high-efficiency anisotropic ferrite magnet with a 3½" parasitic tweeter built into the centre of the bass unit. Two 4" treble units and H.F. crossover network.

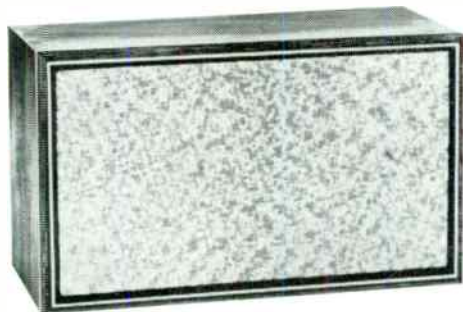
Specifications

Impedance: 4-8 ohms or 15-16 ohms. Power Handling: 20 watts RMS (40 watts peak). Frequency Range: 30-18,000 Hz. Finish: Polished Teak or Walnut. Size: 24" x 15" x 11¾".

£21.0.0 (£21-00) Carr. 10/- (50p)

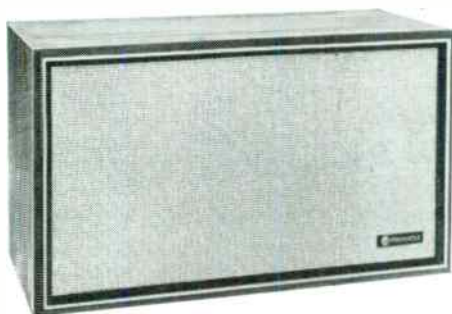
LAFAYETTE SPEAKER SYSTEMS

"CRITERION 150" 10" 2-WAY ACOUSTIC SUSPENSION SPEAKER SYSTEM



Power Handling Capacity—20 watts R.M.S. Overall Response—20-20,000 Hz. Electrical Crossover—2000 Hz. High Frequency Brilliance Control. Fine Furniture Oil Walnut Finish. Completely Sealed and Damped Enclosure. High quality, excellent performance, and handsome styling keynote the exciting Lafayette "Criterion 150" Speaker System. It utilizes the famous acoustic suspension design principle to develop extended bass with velvet smooth high frequency response in a cabinet of compact proportions. The system's main working element is a special 10" highly compliant woofer. This woofer is acoustically suspended and is free from the usual mechanical limiting suspension. Instead the woofer actually rides on the air within the sealed enclosure. This air is used as a spring suspension element. The extremely long cone excursion combines with this type of suspension to give bass reproduction that is outstanding in its depth and power. A 3½" tweeter extends the high frequency response of this system to beyond audibility. Thrilling clarity is achieved with the added "extra of wide angle sound dispersion. The Criterion 150 also features a high frequency "brilliance" control on the rear of the cabinet. This enables balance of high frequency tones to suit individual tastes and match various room conditions. A built-in inductor and capacitor (LC) electrical crossover network is adjusted for 2000 Hz., to assure independent peak-free highs. The enclosure is of solid construction with fibreglass packing to virtually eliminate undamped resonance. All four sides are finished in luxuriant hand rubbed oiled walnut veneer with gold frame moulding and contemporary beige grille. Size: 19"W x 11"H x 9"D. Impedance: 8 ohm. £20.0.0 (£20-00) Carr. 10/- (50p)

"CRITERION 50" TRUE 2-WAY BOOKSHELF SPEAKER SYSTEM



8" Woofer plus 4" Tweeter. "Tuned" Enclosure with Tube-Type Ducted Port. Overall Response 35-18,000 Hz. 3000 Hz Electrical Crossover. Handsome "Criterion" Styling. 10 watts R.M.S. Power Handling Capacity.

A true 2-way bookshelf-type speaker system that offers impressive hi-fi sound, yet measures only 19"W x 8½"D x 10½"H. Contains two separate speakers. A heavy-duty 8" woofer provides reproduction of the low and mid-range frequencies. A 4" cone-type tweeter provides reproduction of the high frequencies (to beyond audibility). Electrical crossover at 3000 Hz. The enclosure is a bass-reflex design using a ducted port of the tube type to provide proper acoustic "tuning" of the enclosure with the speakers used. The tube provides a special path for the low frequency sound waves radiated from the rear of the woofer so that they emerge "in-step" with those radiated from the front of the speaker. This provides substantially greater bass sound power from the system. Finished on all four sides in a rich, hand-rubbed oiled walnut veneer and tastefully framed in an ebony and gold picture frame moulding with white and gold acoustic grille material. Designed for vertical or horizontal use. Overall response: 35-18,000 Hz. Impedance: 8 ohm

£13.10.0 (£13-50) Carr. 10/- (50d)

"CRITERION 25" 2-SPEAKER 2-WAY AIR SUSPENSION SYSTEM



12.5 watts R.M.S. Power Handling Capacity.

8" Woofer, 2½" Tweeter.

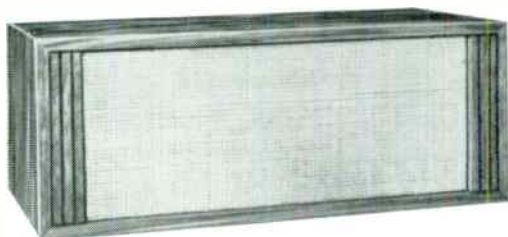
Frequency Response: 55-19,500 Hz.

Rich, Hand-Rubbed Oiled Walnut Finish.

FULL SIZE PERFORMANCE . . . this outstanding ultra-compact Lafayette 2 speaker 2-way system achieves a purity of sound and music quality that is astounding for a speaker system measuring only 12"W x 7"D x 10"H. Perfect for use anywhere in your home or office. You get rich styling plus true high fidelity music reproduction at a low, low price. System consists of a powerful 8" woofer which provides smooth bass sound reproduction down to 55 Hz, and a 2½" cone tweeter that gives you sparkling clean high frequency response. Also includes a built-in 8,000 Hz electrical crossover network. Power handling capacity of 12½ watts makes it compatible for use with most amplifiers and receivers. Interior of cabinet is designed to damp out standing waves and other spurious vibrations. Specifications: Frequency Response: 55-19,500 Hz. Voice Coil Impedance: 8 ohms. Woofer: 8" high compliance with 8.6 oz alnico V magnet; rolled edge suspension. Tweeter 2½" cone type with alnico V magnet. 12.5 watts. Electrical Crossover: 8,000 Hz. Size: 12"W x 7"D x 10"H.

£9.19.6 (£9-97½) Carr. 5/- (25p)

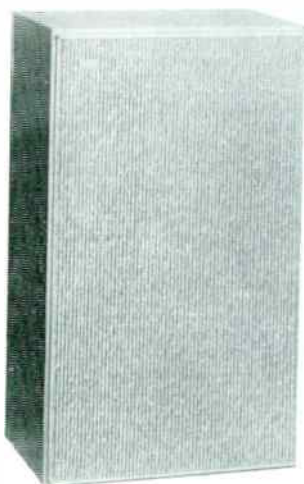
LAFAYETTE "MINUETTE II" 2-WAY HI-FIDELITY SPEAKER SYSTEM



Lafayette "Minuette II" Hi-Fi Speaker System will bring beautiful music to any room in your home—and for a remarkably low cost. Designed for use where space is at a premium—ideal for the small home or listening area. Expand your stereo system to other areas of your home . . . easily used in the kitchen, patio or bedroom. Employs a specially designed 5" x 7" woofer, electrical crossover at 8,000 Hz. plus a 2½" tweeter in a ducted-port bass reflex type enclosure. Provides an exceptionally fine musical quality yet measures only 6"W x 15½"H x 9½"D. Small enough to fit anywhere. Superb oiled walnut finish on 4 sides, allows placing speaker horizontally or vertically. Frequency response: 80-19,500 Hz. Features adjustable level control for brilliance. Impedance 8 ohms. Rated at 5 watts R.M.S.

£8.5.0 (£8-25) Carr. 5/- (25p)

LEAK LOUDSPEAKER SYSTEMS & ENCLOSURES



LEAK 'SANDWICH' FULL RANGE LOUDSPEAKER

The cabinet, which measures only 26" x 15" x 12", is of unique construction which damps panel resonances and permits the loudspeaker motor to reproduce full clean bass without the 'boxy' colouration of conventional cabinets. A 3" and a 13" loudspeaker motor of novel design and a half-section cross-over network complete the system which gives the highest quality of reproduction over the whole frequency range of the input signal from records, radio, tape or microphone. The 13" unit employs a new cone whose stiffness to weight ratio is two hundred times better than the best cones which are currently available. This invention is the greatest advance in moving-coil loudspeaker design since Rice-Kellogg invented the moving-coil loudspeaker in 1925. The low stiffness of conventional cones results in the flexing of the cone at large amplitudes and break-up resonances. The new LEAK cone which has immense stiffness for no greater weight than a conventional cone has given us, for the first time, a loudspeaker which behaves as the theoretical idea of a rigid piston, thus there is no flexing of the cone at large amplitudes and there is no break-up distortion within the frequency range handled by the loudspeaker. It is this freedom from colouration, produced in conventional systems by break-up distortion of the cone and cabinet resonances, which distinguishes the superior quality of reproduction of the LEAK 'SANDWICH' LOUDSPEAKER SYSTEM from that of the best currently available moving-coil loudspeaker systems.

Price: £35.10.0 (£35.50) Carr. 10/- (50p)



LEAK 'MINI-SANDWICH' LOUDSPEAKER

Leak's objective has been to produce a superlative small loudspeaker for those who cannot spare space for the standard 'SANDWICH'.

The MINI-SANDWICH is designed and made exactly as the larger model and the performance is indistinguishable except for the lowest octave.

Dimensions: 18½" x 11" x 7" (47 x 28 x 18 cm.). Weight: Net 22 lbs. (10 kgs.).

Price: £23.0.0 (£23.00) Carr. 7/6 (37½p)

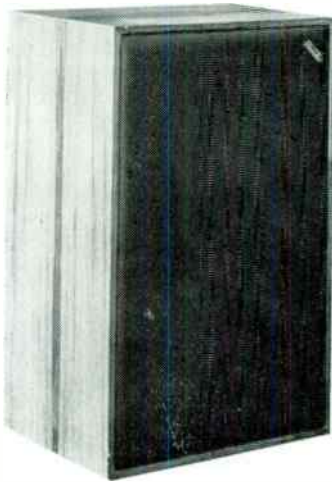
LEAK LOUDSPEAKER PLUGS for Sandwich Speakers 2/3 each

**ORDER BY POST OR CALL AT OUR LARGE
WALK ROUND SHOPS**

**AFTER SALES SERVICE AND SPARES AVAILABLE
ON ALL IMPORTED EQUIPMENT SHOWN
IN THIS CATALOGUE**

**PERSONAL TAX FREE EXPORT FACILITIES
FOR OVERSEAS VISITORS**

RICHARD ALLAN SPEAKER SYSTEMS AND KITS



CHACONNE

The Chaconne is a two-speaker system of bookshelf proportions, and, in common with all current Richard Allan designs, is an infinite baffle enclosure. A specially designed 8" unit handles the bass and middle frequencies, the upper frequencies being handled by a 4" tweeter. The tweeter has a sealed housing to prevent pressure interaction between it and the bass unit, and the corresponding aperture in the front panel is bevelled to minimise colouration due to cavity effects. The enclosure, solidly constructed from $\frac{3}{4}$ " chipboard, is internally damped with the optimum amount of B.A.F. wadding.

Frequency Range: 40–17,000 Hz. Power Rating: 10 watts. Impedance: 8 ohms. Size: 20" x 12" x 9".

£16.8.6 (£16-42½) Carr. 10/- (50p)

PAVANE

The Pavane is a free-standing enclosure and employs three drive units. A 12" unit handles the lower frequencies, an 8" unit the middle frequencies, whilst the upper frequencies are handled by a 4" tweeter. The mid-range and tweeter units are housed in a separate sealed enclosure within the main cabinet, preventing any pressure interaction between units. The tweeter aperture is bevelled to reduce colouration due to cavity effects.

B.A.F. wadding is used for internal damping and the $\frac{3}{4}$ " chipboard enclosure is finished in teak with matching Vynair fabric.

Frequency Range: 30–17,000 Hz. Power Rating: 15 watts. Impedance: 8 ohms. Size: 25" x 15½" x 12".

£26.0.0 (£26-00) Carr. 10/- (50p)



TWIN ASSEMBLY KIT

Based on the CHACONNE enclosure. Complete in every detail apart from the actual cabinet, including a choice of Vynair fret material to complete the enclosure. Full instructions supplied.

Contains:

CC8 Bass/Mid-range Unit—48,000 total flux, ceramic magnet.
460TC Treble Unit—9,000 total flux, Alcomax II magnet.
CN54 $\frac{1}{4}$ Section Printed Circuit Crossover Network.
B.A.F. wadding, foam backing sheet, fixing screws, terminals, etc.

Frequency Range: 40–17,000 Hz.
Power Handling: 10 watts RMS
Impedance: 4–8 ohms.
Recommended Cabinet Size: 20" x 12" x 9".

£8.15.0 (£8-75) each, Carr. 10/- (50p) pair

TRIPLE ASSEMBLY KIT

Based on the popular PAVANE and contains all necessary parts as outlined for the Twin Assembly.

Contains:

CG12 Bass Unit—105,000 total flux, ceramic magnet.
CP8 Mid-range Unit—40,000 total flux, ceramic magnet.
CB4 Treble Unit—15,000 total flux, ceramic magnet.
 $\frac{1}{4}$ Section Printed Crossover Network.

Frequency Range: 30–17,000 Hz.
Power Handling: 15 watts RMS.
Impedance: 4–8 ohms.
Recommended Cabinet Size: 25" x 15½" x 12½".

£15.5.0 (£15.25) each, Carr. 10/- (50p) pair

SUPER TRIPLE ASSEMBLY

CG12 Super Bass Unit—186,000 total flux, ceramic magnet.
CB8 Mid-range Unit—48,000 total flux, ceramic magnet.
CB4 Treble Unit—15,000 total flux, ceramic magnet.
 $\frac{1}{4}$ Section Crossover Network.

Frequency Range: 30–17,000 Hz
Power Handling: 20 watts RMS
Impedance: 8 ohms.
Recommended Cabinet Size: 25" x 15½" x 12½".

£17.19.6 (£17-97½) each, Carr. 10/- (50p) pair

TELETON SPEAKER SYSTEMS

MODEL No. SAI003

**8-WATT
SINGLE-SPEAKER
SYSTEM**

**OILED WALNUT
FINISH**



Power Handling (max.): 8 watts. Continuous Rating: 5 watts RMS. Impedance: 8 ohms. Frequency Response: 70-16,000 Hz. Speaker System: 1 x 4" loud-speaker. Style: Closed compact-box. Size: (W) 6½" x (H) 9¼" x (D) 5".

£4.10.0 Carr. 5/-

MODEL No. SBI202

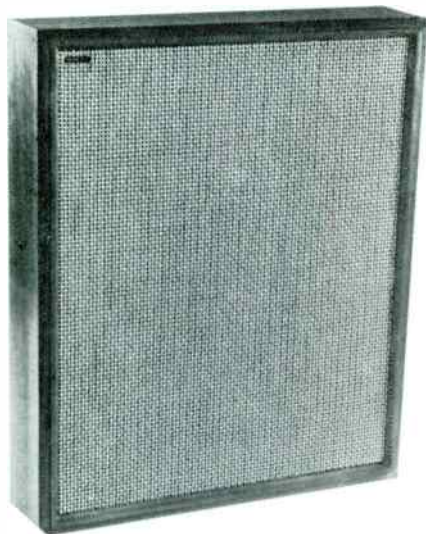
**15-WATT 2-WAY
SPEAKER
SYSTEM**

**OILED WALNUT
FINISH**



Power Handling (max.): 15 watts. Continuous Rating: 10 watts RMS. Impedance: 8 ohms. Frequency Response: 50-20,000 Hz. Speaker System: 1 x 5" woofer, 1 x 3; tweeter. Style: Closed compact-box. Size: (W) 7¼" x (H) 12¼" x (D) 6¼".

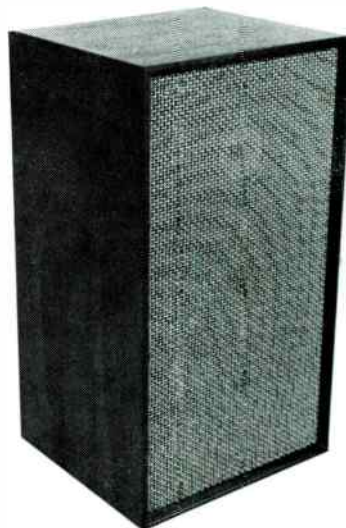
£9.19.6 Carr. 5/-



MODEL No. SBI602
20-WATT 5-SPEAKER 2-WAY SYSTEM
OILED WALNUT FINISH

Power Handling (max.): 20 watts. Continuous Rating: 15 watts RMS. Impedance: 8 ohms. Frequency Response: 50-20,000 Hz. Speaker System: 4 x 6½; special speakers, 1 x 2½" tweeter. Style: Open compact-box. Size: (W) 18¼" x (H) 22¼" x (D) 4".

£13.13.0 Carr. 10/-



MODEL No. SB25
20-WATT 2-SPEAKER SYSTEM
OILED WALNUT FINISH

Power Handling (max.): 20 watts. Continuous Rating: 15 watts RMS. Impedance: 8 ohms. Frequency Response: 50-20,000 Hz. Speaker System: 1 x 10" woofer, 1 x 2½" tweeter. Style: Closed compact-box. Size: (W) 12¼" x (H) 22¼" x (D) 10¾".

£25.0.0 Carr. 10/-



STENTORIAN HIGH FIDELITY LOUDSPEAKERS



HF.1012

MODEL H.F.1016. 10" P.M. Unit, 16,000 gauss magnet. Fitted with cambric cone, die-cast chassis and universal impedance speech coil providing instantaneous matching at 3, 7.5 and 15 ohms. Handling capacity, 10 watts. Frequency response 30 cps to 15,000 cps. Bass resonance 35 cps. £10 5 0 Carr. 7/6

MODEL H.F.1214. 12" P.M. Unit, 14,000 gauss magnet. Fitted with cambric cone and mid-range frequency stabilizers and die-cast chassis. Handling capacity 15 watts. Frequency response 25 cps to 14,000 cps. Bass resonance 39 cps. £13 0 0 Carr. 10/6

MODEL H.F.1216 12" Permanent Magnet Unit, 16,000 gauss magnet. Fitted with cambric cone, die-cast chassis and aluminium voice coil. Handling capacity 15 watts. Frequency response 20-16,000 Hz. Bass resonance 37 Hz. £19 7 3 Carr. 10/-

MODEL T.816. 8" P.M. mid-range and high frequency Unit, 16,000 gauss magnet. Fitted with fibre paper cone and die-cast chassis with a handling capacity of 15 watts when used with a 1,500 cps crossover. Frequency response up to 17,000 cps. Impedance 15 ohms. £8 2 6 Carr. 7/6

MODEL H.F.812 8" Unit, handling capacity 5 watts. Frequency response 50 cps to 12,000 cps. Bass resonance 65 cps. Available with steel chassis and 10,000 gauss magnet or with die-cast chassis and 12,000 gauss magnet. £5 2 0 Carr. 5/-

MODEL H.F.816 8" P.M. Unit, 16,000 gauss magnet. Fitted with cambric cone, die-cast chassis and universal impedance speech coil providing instantaneous matching at 3, 7.5 and 15 ohms. Handling capacity 6 watts. Frequency response 50 cps to 15,000 cps. Bass resonance 63 cps. £8 10 0 Carr. 5/-

MODEL H.F.1012 10" Die-Cast Unit, incorporating 12,000 gauss magnet. Fitted with cambric cone and universal impedance speech coil providing instantaneous matching at 3, 7.5 and 15 ohms. Handling capacity 10 watts. Frequency response 30 cps to 14,000 cps. Bass resonance 35 cps. £6 4 0 Carr. 7/6



HF.1016

CROSSOVER NETWORKS

W/B crossovers are of the filter type and are fitted to all the Duplex Loudspeakers. They are available for use separately, the 3,000 c/s and 1,500 c/s types are half section series connected having an attenuation of 12 db per octave.

CX500 for use with 3-speaker systems, 500 Hz. £1 15 0
CX3000 £2 1 6 CX1500 £2 11 0

CONSTANT IMPEDANCE VOLUME CONTROLS

For installations where the impedance presented by the load must be constant whilst the volume level fed into it is varied, the Constant Impedance Volume Control is recommended. This is available in three versions, 3 ohms, 8 ohms, 15 ohms. It is a T pad type attenuator having 10 steps of attenuation. £1.8.0



STENTORIAN TWEETER UNITS

MODEL T359 Cone Tweeter Unit, high standard of reproduction when used with Stentorian 10" or 12" units. 9,000 gauss magnet. Frequency response 3,000-15,000 Hz. Voice coil impedance 15 ohms or 5 ohms. Power-handling capacity 15 watts when used with a 3,000 Hz crossover. £2 2 6

MODEL T.10 Tweeter Unit, moving coil pressure type. Gives a very high standard of reproduction when used with the H.F.1012, 1016 or 1214 speakers. Speech coil impedance 15 ohms. Flux density 14,000 gauss. Power-handling capacity 5 watts. Dispersion angle 90°. Response 2,000-15,000Hz. £5.12.6 Carr 5/-

WHARFEDALE SPEAKER SYSTEMS



DENTON

Inside this very compact cabinet there is a new pressure unit for cleaner, sound—plus a big new 8" bass unit for increased bass output. You gain everything in space saving—lose nothing in performance. It fits comfortably into the

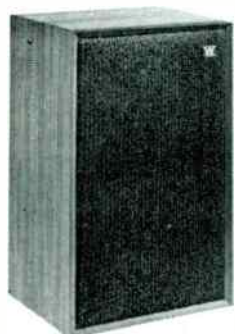
small room or on your bookcase. Units: New pressure unit and new 8" bass. Impedance: 8 ohms. Power handling capacity: 15 watts. Frequency range 65–17,000 Hz. Size: 9 $\frac{3}{4}$ " x 15" x 9". Available in Walnut or Teak. Supplied in matched pairs. £29 19 0 Pair Carr. 10/-

SUPER LINTON

When Wharfedale say super they mean 'super'. This is a completely re-designed and improved system. The sensational new pressure unit and a powerful 8" bass gives it a surprisingly wide range and excellent musical balance. Units: New pressure unit and 8" bass. Impedance: 8 ohms. Power-handling capacity: 15 watts. Frequency range of 50–17,000 Hz. Size: 10" x 19" x 9 $\frac{1}{4}$ ". In Walnut or Teak.



£37 19 0 Pair Carr. 10/-



MELTON

A twin-speaker large compact system. Gives all of the advantages of a big speaker in a compact size. 12" in bass unit. 3" in treble.

Cross-over: 1,750 Hz. Frequency response: 45 Hz–17,000 Hz. 15 watts r.m.s. 4–8 ohms. Oiled teak or polished walnut.

Price: £23 0 0 Carr. 10/-

Styling identical to Super Linton. Size: 21" x 13 $\frac{1}{2}$ " x 10 $\frac{1}{2}$ "

VEDALE III

A three-speaker model, the smoothest speaker system Wharfedale has ever made. A 12" bass unit. 5" mid-range acoustically isolated. 2" in treble with the lowest possible moving cone mass for smoothness.

Cross-over points at 500 Hz and 2,500 Hz.

Frequency response: 40–20,000 Hz.

25 watts r.m.s. 4–8 ohms. Oiled teak or polished walnut. Oiled teak styling with clean lines and brushed stainless-steel effect trim. Walnut model with styled mould and cross-bar.

Size: 24" x 14" x 12"

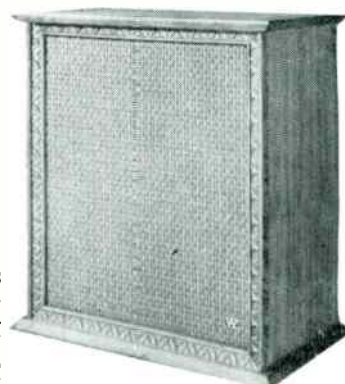
Price: £29 19 6 Carr. 10/-



ROSEDALE

A three-speaker floor-standing loudspeaker system of the highest quality. Brings the loudspeaker designer's skill to the cabinet-maker's art.

A 15" bass unit. 5" mid-range acoustically isolated, and a 2" treble unit with low cone mass. 25 watts r.m.s. 4–8 ohms impedance. Frequency response 35–20,000 Hz. Finely styled with solid overhang top and bottom and figured mould framework. Deep black/brown/gold mesh. Size: 24" x 21" x 13 $\frac{1}{2}$ ". Price: £48 9 6 Carr. 10/-



NEW SYSTEMS!!

THE "ASTON"

The simple styling of the slim Arctic White cabinet blends well, either on shelf or wall, with the newest interior design ideas.

Slimmer lines, and a smoother sound—that's Wharfedale ingenuity.

Inside the slim, white cabinet Wharfedale have packed a powerful 8" bass speaker, a 3" treble unit and a 4-element crossover unit. Frequency response is equal to that found in many larger cabinets. The pure, clean sound of the Aston will excite the most critical music lover.

Available in matched pairs, complete with 15' lead and DIN plug to meet new international standards.

SPECIFICATION

Size: 19" x 11 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ ". Frequency Response: 65–17,000 Hz. 8" Units (203 mm): 10,000 Oersted Magnet. 3" (76 mm): 10,500 Oersted Magnet. Crossover: 4-element, 2-way. Power Handling Capacity (Max.): 18 watts RMS. Impedance: 4–8 ohms. Type of Loading: Acoustic Suspension. Cubic Capacity: 0.45 cu. ft. (12.5 litres). Finish: Arctic White.

£36.5.0 pair Carr. 10/-

THE "TRITON"

A three-speaker bookshelf system—at an economical price! The "Triton" puts really true balanced sound reproduction into a compact size and within reach of the average listener's pocket; a beautiful, three-speaker system specially designed for use on floor or shelf. Finished in oiled teak or polished walnut with an oatmeal cloth grille.

SPECIFICATION

Size: 21 $\frac{3}{4}$ " x 9 $\frac{3}{4}$ " x 9". Frequency Response: 55–20,000 Hz. 8" Unit (203 mm): 12,000 Oersted Magnet. 5" Unit (127 mm): 10,500 Oersted Magnet. 1" Unit (25 mm): 10,000 Oersted Magnet. Crossover: 7-element, 3-way. Power Handling Capacity: 18 watts RMS. Impedance: 4–8 ohms. Type of Loading: Acoustic suspension. Cubic Capacity (Approx.): 9.97 cu. ft. (27 litres). Finish: Oiled teak or polished walnut with oatmeal cloth grille.

£45.7.6 pair Carr. 10/-

WHARFEDALE HI-FI SPEAKERS AND KITS



8" BRONZE/RS/DD

Impedance: 10/15 ohms. Range: 50-20,000 Hz. Roll surround and double diaphragm. Other details as 8" Bronze. £3.13.6 carr. 5/-.

SUPER 10/RS/DD

In a 2 cu. ft. enclosure this model gives superb results. The higher flux density of the Super 10 magnet gives increase sensitivity and excellent transient performance. Flux density 16,000 oersteds. Pole size 1" diameter. Aluminium voice coil. Max input 10 watts rms or 20 watts peak. Frequency range 30 Hz-20,000 Hz.

£10.10.0 carr. 7/6



SUPER 8/RS/DD

Undoubtedly the best selling full range speaker. It is highly competitive for its price. This unit gives an excellent performance with output well maintained up to 20 kHz. In a suitable small enclosure it will give undistorted output at 40 Hz. Flux density 14,500 oersteds. Pole size 1" diameter. Aluminium voice coil. Max. input 6 watts rms or 12 watts peak. Frequency range 40 Hz-20,000 Hz.

£6.6.0 carr. 5/-

CROSSOVER UNIT HS/400/3

Half section three-way separator with crossover frequencies at 400 and 3,000 c/s. 7-16 ohms. Volume controls fitted. Maximum input: 30 watts.

£5.10.0

CROSSOVER UNIT QS/3000

as above but crossover frequency of 3,000 Hz.

£2.15.0

CROSSOVER UNIT QS/800

Quarter section two-way network with a crossover frequency of 800 c/s. 7-16 ohms. Maximum input: 30 watts.

£2.15.0



WHARFEDALE UNIT 3

Two-speaker System Kit

8" bass and mid-range speaker, tweeter unit, crossover, wadding, all parts and full instructions. 4-8 ohms.

£9.19.6 Carr. 10/-

See Keletron page for recommended cabinet.



WHARFEDALE UNIT 4

Two-speaker System Kit

12" bass and mid-range speaker, 3" treble speaker, crossover, wadding, all parts and full instructions. 4-8 ohms. 25 watts RMS.

£12.16.0 Carr. 10/-



WHARFEDALE UNIT 5

Three-speaker System Kit

12" bass speaker, 5" mid-range speaker, treble speaker, 6-element crossover wadding, all parts and full instructions. 4-8 ohms. 35 watts RMS.

£18.16.0 Carr. 10/-

“WESTWELL” HI-FI SPEAKERS

MODEL PW-8
Double Cone

Size: 8 inches
V.C. Imp: 16 ohms
Sensitivity: 100 db/w

Power: 6 watts

Frequency Range:
40-18,000 c/s

Bass Resonance: 60 c/s

59/6

Flux Density: 9,500

Wonderful Value for Money. A Mechanical 2 Way Double Cone Speaker for less than £3.



MODEL CL-20
Woofer

Size: 8 inches
V.C. Imp: 8 or 16 ohms
Sensitivity: 102 db/w

Power: 8 watts

Frequency Range:
40-3,000 c/s

Bass Resonance:
40 c/s

92/6

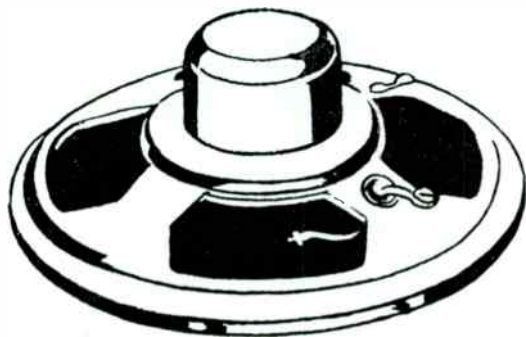
Flux Density: 10,000

Compact Hi-Fidelity Speaker for use with separate Tweeter.



SPEAKERS FIRST GRADE QUALITY

BY LEADING MANUFACTURERS—BRAND NEW AND GUARANTEED



2½" Round	25 ohms	5/6
2½" Round	80 ohms	7/6
3½" Round	3 ohms	9/6
3½" Round	8 ohms	9/6
4½" Square	3 ohms	15/6
6½" Round	3 ohms	21/-
*6½" Round	8 ohms	45/-
8" Round	3 ohms	27/6
*8" Round	3 ohms	45/-
*8" Round	8 ohms	45/-
*8" Round	15 ohms	47/6

*8" Round	15 ohms	45/-
*10" Round	3 ohms	47/6
*10" Round	8 ohms	47/6
*10" Round	15 ohms	47/6
5" × 2¾"	3 ohms	13/6
5" × 2¾"	70 ohms	9/-
6" × 4"	3 ohms	15/6
7" × 4"	3 ohms	19/6
*7 × 4"	3 ohms	25/-
*7" × 4"	8 ohms	25/-
*7" × 4"	15 ohms	25/-
8" × 2¾"	3 ohms	12/6
*8" × 5"	3 ohms	25/-
*8" × 5"	8 ohms	25/-
*8" × 5"	15 ohms	25/-
*8" × 5"	15 ohms	29/6
*10" × 6"	3 ohms	37/6
*10" × 6"	15 ohms	37/5

*Ceramic Pot Magnets.

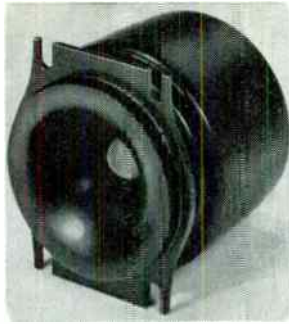


**EAGLE
CT.10 HORN TWEETER**

The operating system is of the pressure unit type, utilising a spun aluminium diaphragm driven by an aluminium wire-wound voice coil operating in a magnetic gap of high-flux density. Gives clean crisp sound of unsurpassed clarity.

Frequency Range: 2,000–17,000 Hz. **Crossover Frequency:** 3,000 Hz. **Flux Density:** 10,000 gauss. **Impedance:** 8 ohms. **Mounting Hole:** 80 mm.

£1.10.0 (£1.50)



**EAGLE
HT.15 HORN TWEETER**

A reliable tweeter that has sold well. Almost identical in performance to the MHT.10 shown on the right—and very attractive in price.

Frequency Range: 2,000–18,000 Hz. **Crossover Frequency:** 3,000 Hz. **Flux Density:** 13,000 gauss. **Impedance:** 16 ohms. **Mounting Hole:** 54 mm.

£2.12.6 (£2.62½)



**EAGLE MHT.10
HORN TWEETER**

A high efficiency horn tweeter using a powerful ceramic magnet assembly. A diecast integral diffuser ensures a wide polar pattern.

Frequency Range: 2,000–18,000 Hz. **Crossover Frequency:** 3,000 Hz. **Flux Density:** 13,000 gauss. **Impedance:** 8 ohms. **Mounting Hole:** 54 mm.

£2.12.6 (£2.62½)



**EAGLE CT.5
CONE TWEETER**

A 78 mm high-frequency unit using a foam-mounted cone. It is a good performer and sells at an attractively low price.

Frequency Range: 3,000–15,000 Hz. **Crossover Frequency:** 3,000 Hz. **Flux Density:** 9,000 gauss. **Impedance:** 8 ohms. **Mounting Hole:** 94 mm.

18/- (90p)

**WESTWELL
HI-FI HORN TWEETER**

Model EM-57 HB

Employing a modern dynamic alloy ferrite magnet, assuring maximum and consistent degree of efficiency under all conditions.

£1.9.6 (£1.47½)

Size 2-9" dia. 2-9" deep. Mounting holes 2-32". Impedance 16 ohms. Voice coil 1/8". Frequency range 2,000–20,000 Hz Flux density 8,000. Power 20 watts. Weight 6 ozs.



**E.M.I. 5" ACOUSTICAL
SUSPENSION HIGH
COMPLIANCE LOUDSPEAKER**

Heavy ceramic pot magnet.
8-ohm impedance.
5 watts RMS.

ONLY £1.2.6 (£1.12½) each



RECTANGULAR HORN TWEETER CT.3

Ideal for 2- and 3-way systems for smooth, clean high quality reproduction of the critical upper, middle and top frequencies. A heavy cast alloy exponential rectangular horn with special sonophase throat design is mounted on the magnet face.

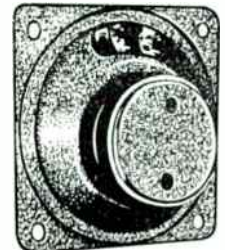
Specifications:

Maximum Output: 15 watts. **Frequency Response:** 1,500–18,000 cps. **Optimum Crossover:** 3,000 cps. **Sensitivity:** 102 db. **Impedance:** 16 ohms. **Flux Density:** 13,500 gauss. **Mounting hole:** 4" × 1½".
£2.9.6 (£2.47½)



E.M.I. TWEETERS

A good quality inexpensive 3" tweeter. Available 3, 8 or 15 ohms. Overall size 3½" × 3½" × 1½" high. Four corner hole fixing. Frequency range 3 Kc/s to 20 Kc/s, flux density 10,000 gauss. For use with bass or full range speakers and with crossover units. 17/6 each (87½p)



Recommended Crossovers. Eagle CN23 3 ohms 16/- (80p)
Eagle CN28 8 ohms 16/- (80p)
Eagle CN216 16 ohms 16/- (80p)

EXTENSION SPEAKER CABINETS

"DUO"

**EXTENSION
SPEAKER UNIT**



This is the smallest of the Adastra Extension Speaker Units and forms a most compact two-tone leathercloth-covered cabinet with gilt relieving trim. The sloping front allows for directional sound even when utilising this unit for wall mounting when the rear key-hole slots are used. Complete with loudspeaker unit able to handle approx. 2 watts. Height: 7"; Width: 7½"; Depth 4½".

30/- Carr. 5/-

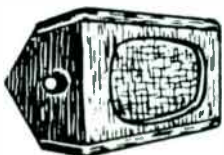
"CLARENCE"

**EXTENSION
SPEAKER UNIT**



Robustly constructed and attractively finished in two matching leathercloths, the "Clarence" employs a volume control with side-located knob. Again, this unit can be used free-standing or located on a wall. This "square" cabinet has rounded edges and measures 9¾" (height) × 10½" (width) × 4½" (depth).

39/6 Carr. 5/-



"CORNETTE"
**EXTENSION
SPEAKER UNIT**

Cleverly designed, this unit can be employed for wall mounting, both horizontally and vertically, and in corners; and for free-standing upright, lengthways or corner located. This is particularly adaptable for audio, stereo and PA use. The wedge-shaped cabinet is finished in simulated walnut veneers with gilt trim, and includes a volume control. Height: 9¾"; Width: 7"; Depth: 5½".

39/6 Carr. 5/-

PLASTIC SPEAKER COVERING

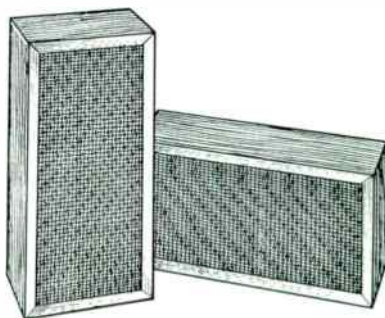
Extruded Polythene available in Grey or Cream. Washable and does not rattle. 18" width. 4/- per ft.

EXPANDED ALUMINIUM SPEAKER COVERING

12" square. Gold anodized.

8/6

SONATA SPEAKER CABINETS



Another audio product specially designed and manufactured for Adastra, the "Sonata" matched speaker cabinets have been so schemed that practically any loudspeaker unit up to 10" × 6" can be fitted with or without an additional tweeter. The "Sonata" is finished in straight-grained teak veneers with harmonising material front. 16" × 8" × 6" deep.

£6.0.0 per Pair Carr. 10/-

DULCI CABINET SPEAKERS

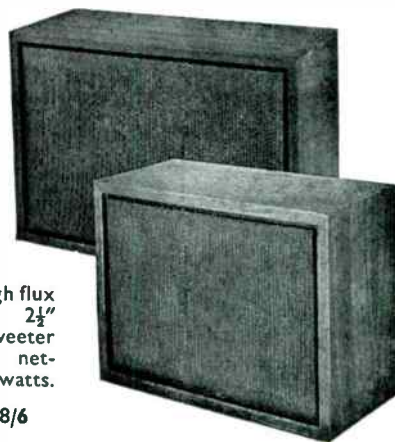
AS3. 8" × 6"
High Flux
Unit.
8 ohms—
6 watts.
Size:
12" × 9" × 6"

£75.0

Carr. 6/-

AS5. 10" × 6" high flux
bass unit with 2½"
plastic cone tweeter
with cross-over net-
work. 4 ohms—8 watts.

£11.10.0 Carr. 8/6



CALLERS WELCOME

SHOPS OPEN

9 a.m. — 6 p.m. Six Days a Week
Edgware Road Half Day Thursday

ELSTONE OUTPUT TRANSFORMERS

TYPE MO/T MIDGET

3 Ratios: 33, 55 and 90:1.

Secondary 3 ohms.

Max. d.c. 30 mA

Size: $1\frac{3}{8}'' \times 1\frac{1}{2}'' \times 1''$

13/-

OUTPUT TRANSFORMER TYPE MP/T

With a ratio of 57:1 this transformer matches the popular 7000-8000 impedance mains pentode to the usual 2-4 speakers. This replacement can be used for many service jobs

Size: $1\frac{1}{2}'' \times 2\frac{1}{4}'' \times 1\frac{1}{4}''$

16/6

TYPE MR/7 MULTI-RATIO

High quality output transformer. Rating 10 watts. Max. primary current each half, 80 mA. Suitable for 2/3, 7-5 or 15 ohms speakers. 14 single ended ratios and 11 push-pull ratios.

Ratios: 9, 13, 15, 19, 20, 22, 23, 27, 28, 30, 35, 43, 50 and 100:1.

Size: $2\frac{3}{8}'' \times 3'' \times 2\frac{1}{2}''$

36/-

LINE TO SPEAKER TRANSFORMERS

Will match a speaker or group of speakers to an output of 15-250 or 600 Ω or as stated.

Type LS2. 15 watts. Primary 250/260 Ω .

Secondary 15/7-5/3-75 ohms.

Size: $3\frac{3}{8}'' \times 2\frac{3}{8}'' \times 2\frac{1}{2}''$

75/-

Type LS3. 30 watts. Primary 250/600 Ω .

Secondary 15/7-5/3-75 ohms.

Size: $3\frac{3}{8}'' \times 3\frac{1}{4}'' \times 2\frac{3}{8}''$

92/6

TYPE MR/T2 MULTI-RATIO

17 ratios - 6 centre tapped - 4 watts rating - Max. d.c. 50 mA. Suitable for 2/3, 7-5 or 15 ohms speakers.

Ratios: 12-5, 15-5 (CT), 20, 23, 25 (CT), 30 (CT), 38, 40 (CT), 50 (CT), 60, 80:1 (CT).

Size: $2'' \times 2'' \times 1\frac{3}{8}''$

18/9

TYPE MR/T3 MULTI-RATIO

20 single ratios - 16 push-pull ratios - 7 watts rating - Max. d.c. 60 mA.

Suitable for 2/3, 7-5 or 15 Ω speakers.

Ratios: 13, 20, 23, 25, 28, 30, 32, 35, 37, 40, 42, 44, 50, 55, 60, 64, 67, 70, 78, 100:1.

Size: $2\frac{3}{8}'' \times 1\frac{1}{2}'' \times 2''$

27/6

HEAVY DUTY MULTI-RATIO TYPES MR/15 and MR/30

Ratios available on each type, single ended or push-pull, 13, 16, 18, 20, 22, 27, 33, 40, 52, 66 and 80:1. Primary loading 2,000 to 16,000 ohms. Secondary impedance 1 to 30 ohms. Full instructions with each transformer.

TYPE MR/15 15 WATTS

Max. primary current for single ended stage 90 mA. For push-pull stage, 100 mA in each half of the primary

79/8

TYPE MR/30 30 WATTS

Max. primary current for single ended stage 100 mA. For push-pull stage, 100 mA in each half of the primary

99/6

RADIO SPARES

'100 V LINE' MATCHING TRANSFORMER

To match loudspeakers to 100 volts output of P.A. amplifiers.

Universal type to suit 3 or 15 ohms speakers, and provided with taps to deliver 1, 2, 5 or 10 W. Clamp construction, with connections to tag-panel. Fully vacuum varnish impregnated.

36/-

LINE MATCHING TRANSFORMER 600 OHMS

'Potted' construction and enclosed in aluminium screening case. Fully vacuum varnish impregnated. Connections to flexible leads. Ratio 20:1 to match 600 ohms to 250 k ohms. Response 100 Hz-10 kHz ± 3 dB. Flash-tested at 2000 volts a.c.

Size: $2\frac{1}{4}'' \times 1\frac{1}{2}''$

27/6

**ORDER BY POST OR CALL AT OUR
LARGE WALK ROUND SHOPS**

**AFTER SALES SERVICE AND SPARES AVAILABLE
ON ALL IMPORTED EQUIPMENT SHOWN
IN THIS CATALOGUE**

WHARFEDALE TRANSFORMERS

WMTI MATCHING TRANSFORMER

Auto transformer for matching 10-16 ohms or 7-9 ohms speakers to sets with 2-5 ohms output or vice versa. 15 watts rating.

PRICE 16/6 (82½p)



W 12 (3 ratios—all centre tapped)

A high quality transformer for undistorted output up to 10 watts with speakers up to 15 ohms impedance. The secondary is wound between the two primary sections to reduce leakage inductance.

Ratios:			<i>Primary Impedance</i>
Full primary P-P	Sec. S - S2	15:1	3,500 ohms
Full primary P-P	Sec. S - S1	22:1	7,000 ohms
Full primary P-P	Sec. S1 - S2	45:1	30,000 ohms

Special ratios to order at extra cost.

N.B.—By using half the primary (P-C.T.) three extra ratios are available, but the corresponding reduction in primary inductance may result in loss of bass response.

d.c. resistance of primary 460 ohms.

Max. d.c. 80 mA.

Inductance at 4 volts 50 c/s.

61H with zero d.c.

16H with 25 mA d.c.

9H with 50 mA d.c.

5H with 75 mA d.c.

Leakage inductance: 200 mH.

£1.10.0 (£1.50)

EAGLE MT.1 100V LINE MATCHING TRANSFORMER



A 10-watt transformer to match loudspeakers to 100-volt line output of P.A. amplifiers. Tapped at 0.625, 1.25, 2.5, 5 and 10 watts, matching for both 4- and 8-ohm operation. Slotted fixing centres 60 mm.

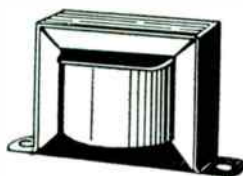
£1.2.6 (£1.12½)



OSMABET OUTPUT TRANSFORMER FOR MULLARD 7+7 WATT STEREO AMPLIFIER

Wound to specification with 43% screen taps. Secondary for 3 or 15 ohms. Fully shrouded with flying leads. Size 3" x 2½" x 3".

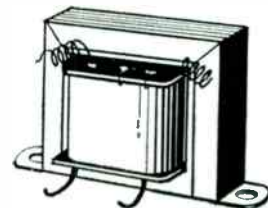
£3.2.6 (£3.12½) each



SPEAKER MATCHING TRANSFORMERS

Tapped 3-5 ohms, 7-10 ohms, and 12-15 ohms, 10 watts.

10/6 (52½p) each

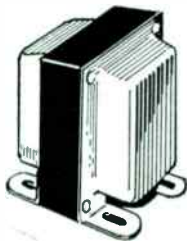


STANDARD OUTPUT TRANSFORMERS

Primary 5,000 ohms. Secondary 3 ohms. 4-watt rating.

10/6 (52½p) each

DOUGLAS TRANSFORMERS



OT-14 100-WATT

Output Transformer. Fully shrouded high-quality component suitable for use with high-output amplifiers using EL34 or KT88 output pentodes. Primary optimum load: R(a—a): 1.75K ohms (2 x 250 mA). 4 x EL34 or 4 x KT88 valves in series/parallel, push pull with fixed bias. Secondary output 100 watts at 3-75 ohms.

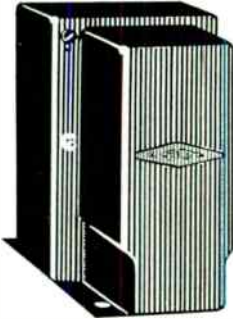
£7.19.6 (£7.97½) Carr. 5/- (25p)

OT-12 50 WATT

Output Transformer. As OT-14 above. Primary optimum load: R(a—a): 3.5K ohms (2 x 125 mA). 2 x EL34 or 2 x KT88 valves in push pull with fixed bias. Output 50 watts at 3-75 of 15 ohms.

£3.19.6 (£3.97½)

PARMEKO AUDIO OUTPUT TRANSFORMERS



This range includes audio output types developed in close collaboration with the Mullard, GEC-OSRAM, and Brimar Valve applications laboratories and follows considerable specialised research into the whole field of audio-frequency amplification.

Associated input transformers, mains transformers and smoothing chokes will be found elsewhere in this catalogue—see index for page numbers.

Code	For Output Valves	Ultra-Linear Tappings	Rating (Watts)	Primary Impedance (ohms)	Primary Inductance 10V 50 Cycles
P2642	2 × EL84	43%	12.5	8,000CT	55H min.
P2641	1 × EL84	No	3	5,000	8H min. at 50mA d.c.
P2934	2 × EL34	43%	20	6,600CT	90H min.

Code	Primary/Sec. Leakage Inductance	Secondary Impedance (ohms)		Dimensions (in.)			Amplifier Design	Price
		Series	Parallel	H	W	D		
P2642	30mH max.	3.75	15	3 $\frac{7}{8}$	3 $\frac{1}{8}$	2 $\frac{1}{8}$	Mullard 5/10	68/-
P2641	60mH max.	3.75	15	3 $\frac{1}{8}$	2 $\frac{1}{2}$	2	Mullard 3W	42/6
P2934	30mH max.	3.75	15	3 $\frac{7}{8}$	3 $\frac{1}{8}$	3 $\frac{9}{8}$	Mullard 20W	101/-

SPECIAL MAINS AND OUTPUT TRANSFORMERS FOR MULLARD CIRCUITS

MULLARD 3 watt AMPLIFIER and 3 watt TAPE AMPLIFIER and POWER UNIT	
MAINS TRANSFORMER Type MT/3M. Primary 10-0-200-220-240V. Secs. 300-0-300V. 80MA 6-3V. 2A. CT. 6-3V. 1A.	56/10
OUTPUT TRANSFORMER Type OT/3. Primary 5000 OHMS. Sec. 15-3-75 OHMS.	33/6
MULLARD 5/10 AMPLIFIER	
MAINS TRANSFORMER Type MT5/10. Primary 10-0-200-220-240V. Sec. 300-0-300V. 100MA. 6-3V. 2A. 6-3V. 2A Tapped 5V for GZ30.	63/6
MAINS TRANSFORMER Type MT/MU for Amplifier with FM Tuner and pre-Amplifier. Primary 10-0-200-220-240V. Sec. 300-0-300V. 120MA. 6-3V. 2A CT. 6-3V. 2A. CT. 6-3V. 1A.	69/2
OUTPUT TRANSFORMERS	
Type OT6. Low loading Primary 6000 OHMS. Sec. 15-3-75 OHMS	76/2
Type OT/8. Normal loading Primary 8000 OHMS. Sec. 15-3-75 OHMS	76/2
Type OT/ ML. Distributed Load. Ultra Linear. 43% Taps. Primary 8000 OHMS. Sec. 15-3-75 OHMS	76/3
MULLARD TWIN THREE-THREE STEREO AMPLIFIER	
MAINS TRANSFORMER Type MT5/10. Primary 10-0-200-220-240V. Sec. 300-0-300V. 100MA. 6-3V. 2-2 A.C.T. 6-3V. 2A.	66/3
OUTPUT TRANSFORMER Type OT/3, Primary 5000 OHMS. Sec. 15-3-75 OHMS.	33/6



KOSS ESP-6 ELECTROSTATIC STEREOPHONES

3 Octaves of Sound beyond the limits of ordinary coil and cone-type driver elements—this wide range is reachable only through electrostatics.

World's First Self-energized Electrostatics—Easy to use—you just plug in like other headphones. No special amplifiers or power supplies needed.

Virtually Distortion-free because of push-pull operation. Elements cancel all 2nd harmonic

distortion, unlike ordinary units. Square waves can be reproduced for the first time by an electro-acoustic reproducer. **Dynamic Level Indicators** give measure of level—flicker at 10th row full orchestral volume, stay lit at very high levels. **Calibrated Machine-run Frequency-response Chart with each Headset**—Positive guarantee that the headset you buy meets specifications.

Cleaner, Wider Range Response than the best Loud-speaker System yet produced—For the first time you hear what really comes out of the tape-machine, disc reproducer, radio-tuner or microphone.

Maximum Input: 12 watts.
Sensitivity Referred to at Input: 90 dB SPL at 1 kHz \pm 1 dB. 0.0002 dynes/cm² with 1 V.
Distortion: Less than .2% at 110 dB SPL. **£40.10.0**



KOSS SP-3xC STEREOPHONES

The new standard of quality. Will reproduce any sound the human ear can hear. Extremely sensitive $3\frac{1}{2}$ " sound reproducers mounted in each earpiece catch the hidden sound of your recordings. Soft sponge foam ear cushions covered by washable vinyl provide lightweight comfort for extended periods of listening. Frequency Response: 10-15,000 Hz. Impedance: 4-16 ohms. Comes complete with T-2 Adapter Plate that connects to any system that will play speakers.

Sensitivity: 1 V at 400 Hz applied to driver will develop 127 dB of sound pressure, relative to .0002 dynes/cm².
Distortion: Less than 1% at maximum output of 143 dB SPL.
Maximum Input: 10 watts per channel; 60 watts per channel of normal music programme source. **£8.11.0**



LAFAYETTE HI-FI STEREO HEADPHONES F-767

The headband is covered with an air-filled vinyl bag which serves as a gentle air cushion, eliminating discomfort. Soft foam rubber ear pads keep out external noise, provide maximum bass response. Sensitivity is very high—a signal power of 1-2 MW will produce adequate listening volume. Frequency response 30-15,000 Hz.

Impedance, 8 ohms per phone. Complete with cylindrical junction box to prevent against power overloads. Phones plug into the box, and the two pairs of leads from the box are connected to a dual- or single-channel source for stereo or monaural operation. Complete with 3-connector phone plug. **£4.10.0**

KOSS PRO-4A PROFESSIONAL HEADSET



A newly improved headset engineered to meet the most rigid requirements of professional and studio uses. Rugged construction makes it both shock- and shatterproof. Adjustable, spring-steel headband with sponge foam headpiece. Fluid-filled cushions fit head contour for efficient seal, providing almost complete attenuation of ambient noise. High-quality drivers in acoustically designed enclosures furnish an unusually smooth frequency response. Removable cushions can be cleaned with soap and water. 10-ft. coiled cord. Equipped for boom mike attachment.

Frequency Response: 30-20,000 Hz.
Impedance: 50 ohms. Can be used with systems having 4, 8 or 16-ohm output taps. Use 4-ohm taps, if available.
Distortion: Less than 1% at maximum output of 120 dB SPL. **£20.14.0**

KOSS K-6 STEREOPHONES



Combines famous Koss sound with comfortable efficient fit. Spring-steel headband and foam-filled ear cushions form effective seal to achieve frequency response of 10-15,000 Hz. Vinyl-covered cushions removable for easy cleaning with soap and water. Sponge foam headband for comfort during extended listening periods. Impedance: 4-16 ohms. Eight foot cord with standard stereo plug for direct connection to most amplifier and receiver systems.

Maximum Input: 10 watts per channel; 60 watts per channel of normal music programme source.
Sensitivity: 1 V at 400 Hz applied to driver will develop 127 dB of sound pressure, relative to .0002 dynes/cm².
Distortion: Less than 1% at maximum output of 143 dB SPL. **£11.5.0**

DE-LUXE LAFAYETTE F-770 STEREOPHONES



- ★ Private Listening
- ★ No space Problem
- ★ Stereo and Monaural
- ★ Soft Foam Rubber Ear Pads
- ★ Exceptionally Fine Quality
- ★ Frequency Response 25-15,000 Hz
- ★ Actually 2 High Fidelity Dynamic Speakers

Combines broad frequency response and faithful reproduction with a comfort-oriented design to make listening with them a real pleasure. Rated at 1/2 watts maximum input; impedance, 8 ohms per phone. Extremely comfortable listening, keep out noise and maintain an excellent bass response. **£5.19.6**



**HOSIDEN
DH.08S
STEREO
HEADPHONES**

£7.19.6

Super De-luxe with Volume Control. Built-in very unique mechanical two-way units. Fitted with adjustable level control and spring-loaded coiled lead.

Impedance: 8 ohms
 Matching Impedance: 4-32 ohms
 Max. Input: 300 mW
 Frequency Range: 20-20,000 Hz
 Sensitivity: 110 dB at 1,000 Hz with 1 mW applied signal



**HOSIDEN
DH.02S
STEREO
HEADPHONES**

45/-

Light weight with simple features.

Impedance: 8 ohms
 Matching Impedance: 4-16 ohms
 Max. Input: 200 mW
 Frequency Range: 20-12,000 Hz
 Sensitivity: 115 dB at 1,000 Hz with 1 mW applied signal



**Echo
HS-606
Dynamic
Stereo
Headphone**

New high-quality stereo headset. Wonderfully comfortable. Soft rubber earclips eliminate external noise. Lightweight vinyl-covered headband adjusts to fit easily. Fitted with 6 ft. cable and standard stereo jack plug. Frequency Response: 25-17,000 Hz. 500 mW rating. Impedance: 8 ohms each earpiece.

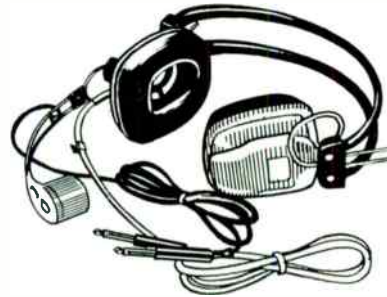
67/6



**HOSIDEN
DH.04S
STEREO
HEADPHONES**

£5.19.6

Each headphone contains a 2½" low-frequency woofer and a ¾" high-frequency tweeter to reproduce the full audio-frequency range. Equipped with individual level controls and features a built-in input attenuator. Frequency response 25-18,000 Hz. Impedance 16 ohms. Complete with stereo cable and plug.



**HOSIDEN
BH.001
HEADSET
AND BOOM
MICROPHONE**

£4.12.6

Headset-Microphone. Ideal for language teaching laboratories, and communication purposes.

Impedance: Headphone 16 ohms at 800 Hz
 Microphone 200 ohms at 1,000 Hz
 Max. Input: Headphone 200 mW
 Frequency Range: Headphone 20-12,000 Hz
 Microphone 300-7,000 Hz
 Sensitivity: Headphone 115 dB at 1,000 Hz with 1 mW
 Microphone -75 dB at 1,000 Hz



**TE-1035
STEREO
HEADPHONES**

39/6

Extremely low cost stereo headphones with an excellent response. Smooth comfortable foam-rubber noise-excluding earcups and adjustable vinyl-covered headband. Impedance: 8 ohms each channel. Matching Impedance: 4-16 ohms. Response: 25-18,000 Hz Power. Rating: 0.5 watts. Complete with cable and standard stereo plug.

EAGLE STEREO HEADPHONES

EAGLE SE1 STEREO HEADPHONES



For the man with professional standards—stereo headphones with two 76 mm high flux density speakers in unique acoustic chambers for uniform response. Broad frequency response from 25–15,000 Hz; complete channel separation; comfortable “flexi-foam” earpads ex-

clude outside nose. A new listening experience.

Frequency Range: 25–15,000 Hz. **Impedance:** 16 ohms per channel. **Matching Impedance:** 8–16 ohms.

£3.19.6

EAGLE SE5 STEREO HEADPHONES

A brilliant compromise between price and performance. This recently introduced stereo headphone gives superb listening in comfort and privacy. New manufacturing techniques have reduced production cost without cutting performance quality. A good buy for the newcomer to hi-fi.

Frequency Range: 30–15,000 Hz. **Impedance:** 8 ohms per channel. **Matching Impedance:** 8–16 ohms.

£2.8.0



EAGLE SE21 PROFESSIONAL STEREO HEADPHONES



Designed for the connoisseur, these headphones offer the ultimate in luxurious listening. Each headphone contains a 64 mm low-frequency woofer, and a 16 mm high-frequency tweeter. Built-in attenuator and individual tweeter controls. Complete with stereo jack plug and cable, a “best buy” for the enthusiast.

Frequency Range: 2–5 18,000 Hz. **Impedance:** 16 ohms per channel. **Match-**

ing Impedance: 8–16 ohms

£8.5.0

EAGLE SE28 STUDIO STEREO HEADPHONES

This studio-quality headset offers a really extensive frequency response (20–20,000 Hz) by means of dome acoustic chambers and specially designed tweeters. Separate adjustable attenuators are also incorporated in each dome. Complete with stereo jack plug and cable—a first-class instrument.

Frequency Range: 20–20,000 Hz. **Impedance:** 8 ohms per channel. **Matching Impedance:** 8–16 ohms.

£8.19.6



EAGLE SE30 STUDIO STEREO HEADPHONES



These headphones incorporate a Stereo/Mono switch, permitting the wearer to listen to a mono source without phase distortion. Adjustable attenuators are also fitted to facilitate individual balance requirements. Lightweight earpieces padded with real leather for extra comfort. **Frequency Range:** 30–16,000 Hz. **Impedance:** 8 ohms per channel **Matching Impedance:** 8–16 ohms.

£5.19.6

EAGLE HMA309 HEADPHONE AND BOOM MICROPHONE

Tailor-made for the language laboratory, studio or other professional needs. Light and comfortable assembly. Fully adjustable headset. Low impedance microphone limits signal loss through length of cables necessary in these applications. Excellent engineering, with simplicity the keynote.

Headset
Frequency Range: 25–14,000 Hz. **Impedance:** 16 ohms. **Matching Impedance:** 8–16 ohms. **Cord Length:** 155 mm with jack plug.

Microphone
Frequency Range: 200–8,000 Hz. **Impedance:** 200 ohms. **Cord Length:** 155 mm with jack plug.





EAGLE SE.40 STEREO HEADPHONES

Falling between the SE.1 and the SE.30 Stereo Headphones, the new SE.40 offers the same high standard of performance and comfort as the SE.30 but does not carry adjustable attenuators or a stereo mono switch. Ideally suited

to installations where these facilities are not required, the SE.40 offers excellent value for money and a first-class specification.

Frequency Range: 25-16,000 Hz. Impedance: 8 ohms per channel. Matching Impedance: 8-16 ohms.

£5.2.6 (£5.12½)



TRIO HSI STEREO PHONE

Input Impedance: 8 ohms. Matching Impedance: 4-16 ohms. Maximum Allowable Input Power: 0.5 watt. Frequency Response Range: 20-19,000 Hz. Distortion: Less than 0.8%. Output Sensitivity: 118 dB at 1 mW input. Connecting Cable: 3 metre long with standard plug.

£8.7.6 (£8.37½)

TRIO HS2 STEREO PHONE

Input Impedance: 8 ohms. Matching Impedance: 4-16 ohms. Maximum allowable input power: 0.5 watt. Frequency Response Range: 20-19,000 Hz. Distortion: Less than 0.8%. Output Sensitivity: 11 dB at mW input. Connecting Cable: 2 metre long with standard plug.

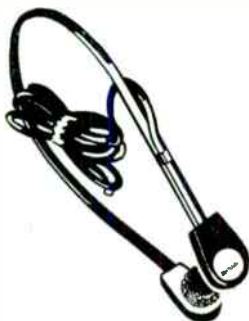
£6.15.0 (£6.75)



TELETON SH30IP DYNAMIC STEREO HEADPHONES

Impedance: 8 ohms (each channel). Matching Impedance: 4-16 ohms. Frequency Range: 20-21,000 Hz. Max. Power Input: 0.5 watts. 5½' cable with jack plug.

£3.9.6 (£3.47½)



FOSTER RDF 204 DYNAMIC STEREO STETHSET

This is really beautifully designed lightweight stethset which provides extraordinary high quality stereo listening and monitoring. The dynamic earpieces are carefully foam-rubber padded, and can be worn with the supporting band above or below the head. 5' of 4 way lead; smart matching grey finish. Impedance: 8 ohms. Weight 2½ oz.

£1.17.6 (£1.87½)

EAGLE HA10 STEREO HEADPHONE AMPLIFIER



This all-silicon 10-transistor amplifier operates from magnetic, ceramic, or tuner inputs, with twin stereo headphone outputs and separate volume control for each channel. It is self-powered from a single 9 V battery, and will give excellent performance with any of the stereo headphones illustrated on the previous page.

£8.19.6 (8.97½)

Inputs: Magnetic 5 mV, Ceramic 100 mV, Tuner 100 mV. Outputs: 50 mW per channel. Size: 185 x 70 x 100 mm.

EAGLE LS2W STEREO HEADPHONE CONTROL CENTRE



Superb listening . . . private . . . but not lonely—that's what this handsome walnut control centre gives you. It's a completely self-contained headphone listening system, with plugs for two sets of stereo headphones and a separate volume control for each channel. Complete with cable and plug for direct connection to amplifier.

£2.19.6 (£2.97½)

Input: Suitable for connection to any amplifier up to 30 watts output. Outputs: 50 mW per channel. Size: 130 x 70 x 90 mm.

EAGLE JB3 STEREO HEADPHONE JUNCTION BOX



This simple, inexpensive unit is essential to stereo headphone users. It connects to amplifier and loudspeakers, giving attenuated stereo headphone output, with a three-position switch to give headphones only, speakers only, or both together.

£1.6.0 (£1.30)

Input: Suitable for connection to any amplifier up to 30 watts output. Output: 50 mW.

AUDIO CONTROL UNITS SERIES II

AUDIO SWITCH Mk. II

The Audio Switch is for use in installations where two sets of speakers are employed or where a stereo headphone socket is not available.

Both pairs of speakers can be operated at the same time or either pair may be selected for independent use. When the unit is switched to headphones both pairs of speakers are disconnected.

The connections on the rear of the unit are by colour coded screw terminals clearly labelled and marked by the appropriate symbols. The wooden cabinet is finished in teak.

Size: Length 6", Height 7 $\frac{3}{8}$ ", Depth 3 $\frac{1}{8}$ ". Weight: 16 oz.

£5.19.6 (£5.97 $\frac{1}{2}$)



DE LUXE AUDIO SWITCH Mk. II

This is substantially the same as the standard Audio Switch but has the added facility of giving individual volume control on both speakers of system B.

This means that the main pair of speakers can be controlled direct from the amplifier in use, and the second pair can be controlled from the switch unit.

Size: Length 6", Height 1 $\frac{7}{8}$ ", Depth 3 $\frac{1}{8}$ ".

Weight: 17 oz.

£7.10.0 (£7.50)



HEADPHONE CONTROL Mk. II

The Headphone Control is for use where two persons wish to use stereo headphones simultaneously from the same source. In order that both persons may enjoy comfortable listening conditions at their own preferred levels, four controls are available giving a separate volume setting for each ear-piece.

Speakers may be switched on or off during this operation. The controls use high-grade wire-wound potentiometers to prevent burn-out, and they are entirely independent and non-interacting.

Amplifier and speaker connections at the rear are by colour coded screw-on terminals clearly labelled and marked by the appropriate symbols. The wooden cabinet is finished in teak. Size: Length 6", Height 2 $\frac{3}{8}$ ", Depth 3 $\frac{1}{8}$ ". Weight: 18 oz. £6.19.6 (£6.97 $\frac{1}{2}$)



MULTI-CONTROL M. II

This is an extremely versatile control unit which caters for almost all domestic listening requirements.

Two pairs of stereo speakers may be connected or alternatively, one pair of stereo speakers in room A and one speaker each in rooms B and C. Both pairs of speakers can be used independently or they may be used together. All four speakers have independent volume controls giving complete control in practically all listening conditions.

Two stereo headphone sockets are fitted and when the function switch

is at "Phones" all speakers are cut off. As in the Headphone Control all four earpieces have independent volume control without interaction. High grade wire-wound potentiometers are used throughout. Connections are as on the previous units. The unit is finished in teak. Dimensions: Length 12", Height 3 $\frac{1}{4}$ ", Depth 3 $\frac{1}{8}$ ". Weight 34 oz. £13.15.0 (£13.75)



INPUT-OUTPUT COMPARATORS Mk. II

Both the input and output comparators were initially evolved as dealer aids for demonstration rooms and for use at exhibitions where comparison facilities were required, and where manufacture of a complicated and expensive installation was not suitable. This type of situation still remains the basic purpose of both comparators, but a more general demand for these mobile and inexpensive units has enabled us to offer them for general sale through our normal dealer outlets.

INPUT COMPARATOR MK. II

Enables any of six stereo turntables or other programme sources to be connected to any of six stereo amplifiers giving a possibility of 36 different combinations.

Size: Length 6 $\frac{1}{4}$ ", Height 3 $\frac{1}{4}$ ", Depth 3 $\frac{3}{8}$ ". Weight: 19 oz

£12.15.0 (£12.75)



OUTPUT COMPARATOR MK. II

Allows any of six stereo amplifiers to be connected to any of nine pairs of loudspeakers giving a possibility of 54 different listening combinations or if used in conjunction with the input comparator a possible 324 equipment combinations are made available. Switch position "10" is for use with headphones instead of loudspeakers.

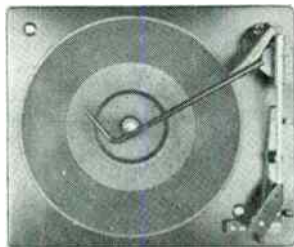
Connections are made on the rear of the input comparator by means of 5-pin DIN plugs and on the output comparator by DIN speaker plugs. Both units are finished in teak. Weight: 29 oz.

Size: Length 12", Height 3 $\frac{1}{4}$ ", Depth 3 $\frac{3}{8}$ ".

£19.0.0 (£19.00)



B.S.R. RECORD PLAYERS



MODEL C.109

The C.109 is an automatic record changer which replaces the very successful UA.25. It has a large turntable and manual size selection as standard features and is also available with a choice of tubular or moulded arm. The traditional BSR simplicity in

styling results in a thoroughly dependable, very inexpensive record changer that would add distinction to any radiogram or audio unit.

- Manual size selection.
- 11¼" turntable.
- Simple to operate with manual play facility.
- Four speeds: 16, 33, 45 and 78 r.p.m.
- With X.3H compatible cartridge.

£5.19.6 Carr. 7/6



MA.65 MANUAL/AUTOMATIC TURNTABLE UNIT

Combining traditional BSR reliability with good styling and excellent performance.

- Low mass pick-up arm with automatic lock, bias compensator, cue and pause lever and adjustable tracking

pressure. Turntable takes up to eight records with manual selection of record sizes.

£9.12.6 Carr. 7/6

MA.70 MANUAL/AUTOMATIC TURNTABLE UNIT

For the high-quality reproduction demanded by the audio enthusiast. An instrument incorporating many features usually found only on more expensive turntables.

- Counterbalanced pick-up arm with adjustable bias compensator, calibrated tracking-pressure control and integral cueing device, automatic pick-up arm lock. Four-pole motor.

£11.17.6 Carr. 7/6



MA.75 MANUAL/AUTOMATIC TURNTABLE UNIT

Top in the range of BSR turntables, this model has the refinements demanded by the real enthusiast.

- 11" diameter heavy machine turntable made from die-cast alloy, clip-in cartridge holder, pick-up muting switch and switch "pop" filter, in addition to the features of the MA.70.

£14.10.0 Carr. 7/6



BSR BASES AND COVERS

Attractive solid wood bases are available with cut-out ready for mounting the C.109, MA.65, MA.70 and MA.75 turntables as well as certain other BSR units. Also available in a matching dust cover in tinted bronze styrene which can remain fitted while the unit is in operation. Covers and bases are obtained separately.

Size, Base and Cover: 13¼" x 15" x 7½".

£9.15.0 COMPLETE Carr. 7/6

B.S.R. McDONALD RECORD PLAYERS SPECIALLY PRODUCED FOR AUDIO ENTHUSIASTS



MODEL MP.60 SINGLE PLAYER

Features four speeds; high-precision low-mass pick-up arm with calibrated stylus pressure; lightweight cartridge shell; bias compensator; heavy balanced large turntable, simple operating controls; viscous cueing

device; anti-skating control.

Overall size: 333.4 mm x 285.8 mm (player only).

OUR PRICE £10.19.6 Carr. 7/6



MODEL 510

High-fidelity record changer. Features precision counter-balanced pick-up arm; stylus pressure gauge; lightweight cartridge; 11" diameter deep-rim turntable; tracking control; bias compensator; viscous cueing;

simple controls; anti-skating control.

OUR PRICE £11.15.0 Carr. 7/6

TEAK PLINTH AND STYRENE COVER FOR ANY OF THE ABOVE. £5.12.6 Carr. 7/6

MODEL 610

Combines the functions of a Hi-Fi stereo record changer, a fully automatic single player and a repeating turntable. Four speeds; automatic stop; precision synchronous motor; heavy balanced turntable; counter-balanced pick-up arm; tracking control; bias compensator; automatic changer mechanism; simple to operate controls and viscous cueing device; anti-skating device. Overall size: 333.4 mm x 285.8 mm.

OUR PRICE £13.19.6 Carr. 7/6



MODEL 310

New low-cost four-speed record changer incorporating many of the more expensive models.

OUR PRICE £9.12.6

Carr. 7/6



GARRARD RECORD DECKS



SL95B

Automatic transcription turntable fitted with the Garrard Synchro-Lab motor. Features include automatic play of single records, cue and pause facility, bias compensator and calibrated fine stylus force adjustment. The low resonance, wood and aluminium pick-up arm with resiliently mounted counter-balance weight and slide-in cartridge carrier is fitted with gimbal-type pivots. **£37.10.0 Carr. 7/6**



SL75B

Automatic transcription turntable fitted with the Garrard Synchro-Lab motor. Similar in many respects to the SL95B but featuring a different design of pick-up arm. Both the SL95B and the SL75B incorporate a combined record-speed and size selector for 12" (78 rpm), 7" (45 rpm) and 12", 10" and 7" (33½ rpm). **£27.19.6 Carr. 7/6**



SL72B

A transcription turntable with facility for automatic play if desired. Features a pick-up arm of advanced design with gimbal-type pivots, a non-magnetic turntable, cue and pause control, calibrated stylus force adjustment and bias compensator. The SL72B is fitted with the Garrard Synchro-Lab motor. **£24.19.6 Carr. 7/6**



SL65B

Three-speed automatic changer with cue and pause facility, weight counterbalanced pick-up arm, calibrated stylus force adjustment, slide-in cartridge carrier and adjustable bias compensator. Incorporates the Garrard Synchro-Lab motor. **£14.9.6 Carr. 7/6**



40B

A three-speed automatic changer having cue and pause facility, tubular pick-up arm with stylus force adjustment and slide-in cartridge carrier. Plays up to eight records automatically. **£11.0.0 Carr. 7/6**



5-200

A four-speed record changer with 10½" turntable, playing up to eight records automatically. Features include tubular pick-up arm, automatic play of single records, automatic pick-up arm lock, and has facility for single record repeat. Switches off automatically at the end of a single record or the last of a stack with pick-up arm returning to its rest. **£10.5.0 Carr. 7/6**



5-100

Similar to the Model 5-200 but having an 8" turntable. **£9.12.6 Carr. 7/6**



CC10

Compact four-speed record changer playing up to eight records automatically. Features include tubular pick-up arm, automatic play of single records, automatic pick-up arm lock and facilities for single record repeat. Switches off automatically at the end of a single record or the last of a stack with pick-up arm returning to its rest. Supplied with cartridge. **£9.12.6 Carr. 7/6**

GARRARD RECORD DECKS



401

Precision engineered transcription turntable with variable speed control. The heavy, diecast turntable, fitted with an anti-static mat, features gear-cut stroboscopic markings illuminated by a high intensity neon lamp situated in the rigid aluminium base plate. The motor is completely encased for full magnetic screening. **£25.0.0 Carr. 7/6**



AP75

A high-quality, three-speed single record-playing unit. Features include non-magnetic turntable, aluminium pick-up arm with calibrated bias compensator, stylus force adjustment and slide-in cartridge carrier. Facilities for cue and pause and automatic play of single records. **£16.19.6 Carr. 7/6**



SP25 Mk II

Single-record playing unit, with weight counterbalanced tubular pick-up arm, bias compensator, integral calibrated stylus force adjustment, and cueing device. **£10.19.6 Carr. 7/6**



3500

Three-speed automatic record changer having cue and pause facility, low-mass tubular pick-up arm, and calibrated stylus force adjustment. **£12.19.6 Carr. 7/6**



3000

Four-speed auto-changer with low-mass pick-up arm for use with high compliance cartridge—gives exceptionally low record wear.

With Sonotone 97AHC Stereo Cartridge **£9.19.6 Carr. 7/6**



2025TC

Exceptionally attractive four-speed automatic record changer, incorporating cue and pause control and low-mass pick-up arm.

With stereo cartridge **£8.19.6 Carr. 7/6**
or with Sonotone 9TAHC diamond **£9.19.6 Carr. 7/6**



Bases

Wood bases are available for all units except the 401 and CC10. They are extremely well constructed and supplied with the top board already cut out for mounting the unit.

Types WB1 and WB5 for SL65B, 40B, 3500, 3000, 2025TC, SP25 Mk II, 5-200 and 5-100

WB1 **£3.2.6 Carr. 5/-**

WB5 **£4.15.0 Carr. 5/-**

Type WB4 Mk II for SL95B, SL75B, SL72B and AP75.

£4.15.0 Carr. 5/-



RIGID PLASTIC DUST COVERS

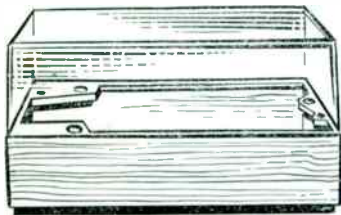
Designed to fit the standard Garrard wood bases, they are strongly constructed from rigid clear transparent plastic.

Type SPC1 fits the WB1 and is a dust cover only. **£3. Carr. 5/-**

Type SPC4 Mk II fits the WB4 Mk II and WB5 and allows the unit to be played with the cover in position.

£3.14.0 Carr. 5/-

PLINTHS AND COVERS



Suitable for the full range of Garrard Record Decks. Solid wood base with teak finish and rigid transparent plastic covers.

MODEL WB1/SPC1

Suitable for SP.25, 2025 T/C, 3000, etc.
£4.10.0 Carr. 7/6

MODEL WB5/SPC4

Suitable for SP.25, 2025 T/C, 3000, etc., but will enable the deck to be operated with the cover in place.
£5.19.6 Carr. 7/6

MODEL WB4/SPC4

Suitable for SL.95, SL.75, AP.75, etc.
£5.19.6 Carr. 7/6

GARRARD ACCESSORIES

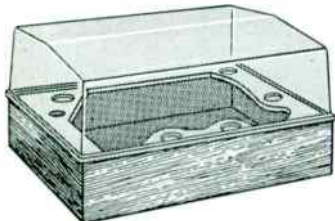
Plug-in Pick-up Shells and Slide-in Cartridge Carriers

	£	s.	d.
M.6 for Models 40, 50, 55, 60, 65 Series	9	0	
M.7 as M.6 above but with cut-away skirt	9	0	
M.8 for Model LAB.80 Mk II ..	1	0	6
C.1 for Models AP.75 and SL.75	9	0	
C.2 for Model SL.95	9	0	

Record Spindles

LRS.9	1	15	3
LRS.20	17	6	
LRS.25	1	1	0

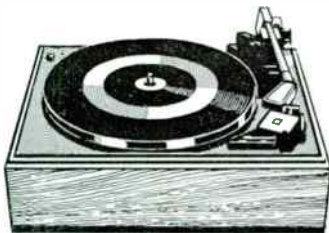
HL DELUXE PLINTH AND COVER



Luxurious teak plinth with board ready cut to accept Garrard AP.75, SL.72B, SL.75B or SL.95B.

Plinth size: 19" x 15½" x 4½" deep. 4½" deep tinted perspex cover which will allow the deck to operate when in place.

£10.19.6 (£10-97½) Carr. 7/6 (37½p)



RECORD DECK BARGAINS

GARRARD SP.25 II/GOLDRING G.800

High-fidelity four-speed single player. Housed in teak plinth with rigid plastic cover and fitted with Goldring G.800 stereo magnetic cartridge. Ready wired with mains and pick-up leads.

Normal Rec. List Price: £35.0.0

OUR PRICE: £20.19.6 (£20-97½)

Carr. 10/- (50p)



GARRARD A.40 II

Four-speed Record Changer and Player A compact record changer of modern design and appearance. Specially made pick-up arm pivots allow low stylus pressures. May be used manually as a single record player. Fitted with an interchangeable plug-in pick-up head. Large diameter turntable. Fitted with stereo cartridge.

Rec. List Price: £14.0.0

OUR PRICE: £8.8.0 (£8-40)

Carr. 7/6 (37½p)



GARRARD A.70 II

High-fidelity four-speed automatic record changer with a large-diameter heavy die-cast turntable. Weight counterbalanced pick-up arm with bias compensator and integral calibrated stylus force adjustment.

Rec. List Price: £23.13.0

OUR PRICE: £11.19.6 (£11-97½)

Carr. 7/6 (37½p)

CONNOISSEUR HI-FI EQUIPMENT



CRAFTSMAN 2-SPEED TURNTABLE
£17.5.7 (£17.28)

CRAFTSMAN III VARIABLE 3-SPEED TURNTABLE
£23.0.9 (£23.04)

- BD.1 Turntable Chassis Unit.
£13.2.2 (£13-11)
- BD.1 Turntable Assembly complete on plinth with dust cover.
£21.1.8 (£21-09)
- BD.1 Turntable Assembly with SAU.2 Arm mounted on plinth complete with dust cover.
£31.18.4 (£31-92)
- BD.1 Turntable Assembly with SAU.2 Arm and Cartridge mounted on plinth complete with dust cover.
£37.0.0 (£37-00)
- BD.2 Integrated SAU.2 Arm Chassis Unit.
£24.19.3 (£24-96)
- BD.2 Integrated SAU.2 Arm Assembly mounted on plinth complete with dust cover.
£31.18.4 (£31-92)
- BD.2 Integrated SAU.2 Arm Assembly with cartridge mounted on plinth complete with dust cover.
£37.0.0 (£37-00)
- SAU.2 Arm complete with head shell, leads and precision balance.
£11.18.10 (£11-94)
- SAU.2 Head shell.
£17.1 (£1-35½)
- Precision Stylus Balance.
19/2 (96p)
- SAU.2 Extension Stem.
6/3 (31p)
- SCU.1 Stereo or Mono Cartridge.
£5.2.6 (£5-12½)
- BD.1 Turntable Kit.
£10.5.0 (£10-25)
- Plinth for Belt Drive Turntable.
£4.11.3 (£4-56)
- Dust Cover.
£3.8.6 (£3-42½)
- Pick-up Mounting Board.
12/9 (64p)
- Carriage 10/- (50p) extra on any turntable.

GOLDRING-LENCO GL75 TRANSCRIPTION UNIT

Integrated transcription motor unit and arm, built to instrument standards of quality and appearance. The drive system is the unique Goldring-Lenco constant-velocity 4-pole motor with conical shaft coupled to the underside of the turntable by a knife-edged idler (automatically disengaged by the on/off switch, which is fully click-suppressed and also operates a turntable brake. The turntable is die-cast from non-ferrous material, weighs 9 lb. and is dynamically balanced. Speed is continuously variable from 80-30 r.p.m. and from 18-15 r.p.m., with adjustable positive stops for the four standard playing speeds. There is only 0.2% change of speed for 10% mains voltage change. The GL75 is available in chassis form, or as the GL75/P mounted on an attractive teak base for which a clear plastic dust cover is available as an optional extra. The transcription arm is the Goldring-Lenco L75 which is lowered on to the record by a viscously damped lowering device.

GL 75 £28.15.0 Carr. 10/-; GL75/P £38.10.0 Carr. 10/-; Perspex Cover £3.8.0 extra

SPECIAL GOLDRING OFFER!

GL75 housed in de luxe teak plinth with perspex cover and fitted with Goldring G800 stereo magnetic cartridge. Ready wired with mains and pick-up leads.

Normal Rec. List Price £64.2.11 **OUR PRICE £47.10.0 Carr. 20/-**
(Also available less cartridge £40 Carr. 20/-)



GOLDRING-LENCO GL69/2 TRANSCRIPTION UNIT

The Goldring-Lenco GL69/2 follows in the tradition of previous Goldring-Lenco Transcription Turntables in terms of quality and facilities. Its speeds can be continuously varied from 30 r.p.m. to 86 r.p.m. and there are pre-set click-in stops at 16 $\frac{2}{3}$, 33 $\frac{1}{3}$, 45 and 78 r.p.m. The mains on/off switch is fully suppressed, and the idler wheel is automatically disengaged from both turntable and drive as the unit is switched off. Fitted with the L69 Arm which can be lowered on to the record by a viscously damped lowering device. Available in chassis form or mounted on a very attractive teak base for which a clear plastic dust cover is available as an optional extra.

GL69/2 £21.5.0 Carr. 10/-;
GL69/P £28.19.6 Carr. 10/-
Cover £3.8.0

SPECIAL GOLDRING OFFER!

GL69/2 housed in de luxe teak plinth with perspex and fitted with Goldring G800 stereo magnetic cartridge. Ready wired with mains and pick-up leads.

Normal Rec. List Price £50.16.0
OUR PRICE £39 Carr. 10/-



GOLDRING G99 TRANSCRIPTION UNIT

A transcription unit for those who prefer to mount, separately an arm of their own choice. Incorporating the unique Goldring-Lenco continuously variable speed and vertical drive features, with less than 1% speed change for 13% mains voltage variation, this unit has an 8-lb. non-magnetic turntable and built-in neon-lit stroboscope. It is switched by push-buttons coupled to the idler disengagement mechanism. There are adjustable click-in positions for the four standard playing speeds. 200/250 V a.c. 50 Hz 15 VA. Dimensions: 14 $\frac{1}{4}$ " x 13 $\frac{1}{4}$ ".

G99 £20.0.0 Carr. 10/-; G99 Plinth and Cover £9.17.6

GOLDRING-LENCO L69 TRANSCRIPTION ARM

This new light-weight pick-up arm has a removable plug-in shell which can accommodate all standard fixing cartridges for both mono and stereo reproduction. Both the height of the arm and the position of the stylus in the headshell can be adjusted to give optimum tracing. The stylus pressure is adjustable by sliding counterweight. **£7.19.6**



GOLDRING-LENCO L75 TRANSCRIPTION ARM*

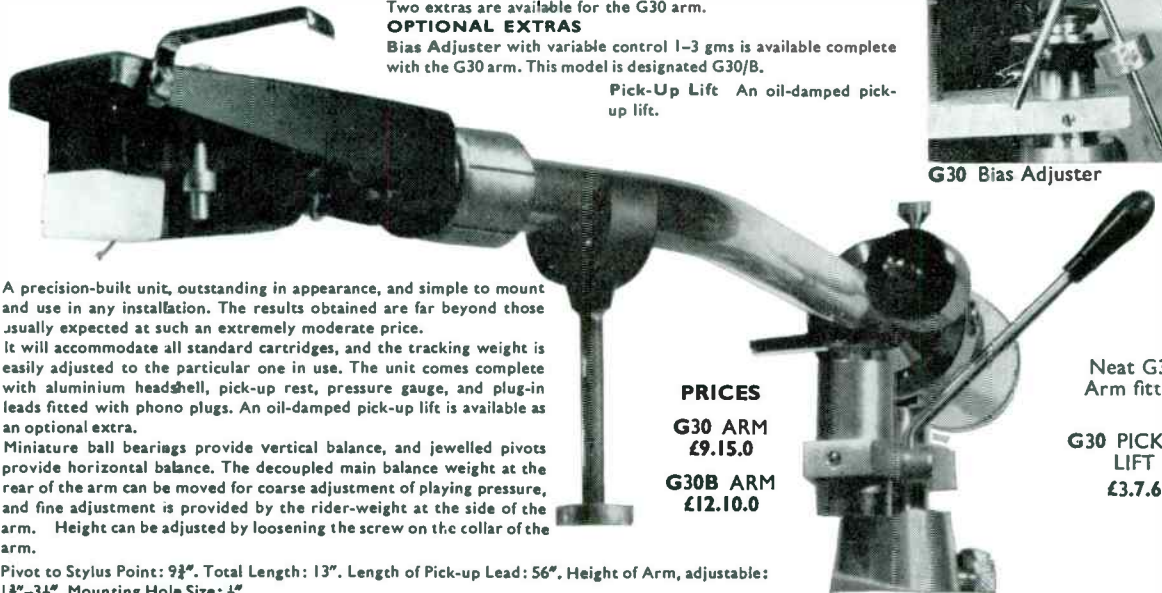
**(as fitted to the GL75 Transcription Unit)*

With single-hole fixing for arm and single-hole fixing for rest, plus simple full height adjustments, this is an easy-to-fit high-quality arm of Swiss design and manufacture. Knife-edge bearings ensure virtually frictionless movement and the rear counterbalance is used to achieve both arm balance and freedom from lateral swing. Stylus pressure is adjustable by the outrider, calibrated in steps of 0.5 gram from 0.5 to 5 grams. "Anti-skating" (bias compensation) is achieved by a small suspended weight positioned to suit stylus tip radius and playing weight. An ultra light-weight interchangeable fixing to the arm by screw locking collar, takes all standard

fitting cartridges, and has provision for moving the cartridge backwards or forwards ($\frac{1}{2}$ " movement) to achieve accurate stylus positioning. **£10.7.6**



NEAT G.30 Professional Studio Balance Tone Arm



A precision-built unit, outstanding in appearance, and simple to mount and use in any installation. The results obtained are far beyond those usually expected at such an extremely moderate price.

It will accommodate all standard cartridges, and the tracking weight is easily adjusted to the particular one in use. The unit comes complete with aluminium headshell, pick-up rest, pressure gauge, and plug-in leads fitted with phono plugs. An oil-damped pick-up lift is available as an optional extra.

Miniature ball bearings provide vertical balance, and jewelled pivots provide horizontal balance. The decoupled main balance weight at the rear of the arm can be moved for coarse adjustment of playing pressure, and fine adjustment is provided by the rider-weight at the side of the arm. Height can be adjusted by loosening the screw on the collar of the arm.

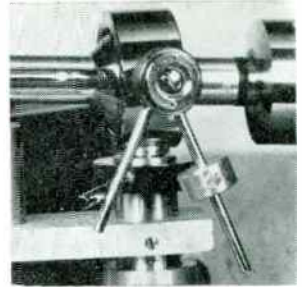
Pivot to Stylus Point: 9½". Total Length: 13". Length of Pick-up Lead: 56". Height of Arm, adjustable: 1½"-3¼". Mounting Hole Size: ½".

Two extras are available for the G30 arm.

OPTIONAL EXTRAS

Bias Adjuster with variable control 1-3 gms is available complete with the G30 arm. This model is designated G30/B.

Pick-Up Lift An oil-damped pick-up lift.



G30 Bias Adjuster

PRICES

G30 ARM
£9.15.0

G30B ARM
£12.10.0

Neat G30
Arm fitted

G30 PICK-UP
LIFT
£3.7.6

DECCADEC DE LUXE RECORD PLAYER

Transcription-type single record player fitted with Deram transcription stereo/mono cartridge and diamond stylus. Will play all standard records by manual operation at all four speeds. An adaptor is provided for 7" 45 r.p.m. records with large centre holes. Supplied with all mounting fittings.

Frequency Response:

±3 db 18-18,000 Hz.

Impedance Load:

2M ohms.

Tip Mass:

0.6 milligram.

Dimensions:

14½" wide x 12½" deep.

£16.7.0 (£16.35) Carr. 7/6 (37½p)



ALSO AVAILABLE DECCA STUDIO TURNTABLE

£34.8.10 (£34.44½) Carr. 10/- (50p)



DECCA INTERNATIONAL PICK-UP ARM

Features magnetic bias compensator, inverted jewelled uni-pivot, optional lateral and vertical damping and magnetic floating action. An offset counterweight allows the arm to be balanced both laterally and vertically. Supplied with lightweight head shell.

The unit does not have integral lifting and lowering mechanism. Decca Microlift or Deccalift can be fitted.

£21.2.6 (£21.12½) P&P 5/- (25p)

ALSO AVAILABLE
DECCA MK. I SUPER ARM

£7.2.6 (£7.12½) P&P 5/- (25p)

FULL RANGE OF OTHER DECCA PRODUCTS AVAILABLE



ADC STEREO CARTRIDGES

ADC.660XE

Frequency Response:
10-20,000 Hz ±2 db.
Tracking Force: 2-2½ gms.
£22.9.10

ADC.220X

Frequency Response:
10-18,000 Hz ±3 db.
Tracking Force: 1½-3 gms.
£9.4.10

ADC.220XE

Frequency Response:
10-18,000 Hz ±3 db.
Tracking Force: 1-3 gms.
£11.0.8

ADC.990XE

Frequency Response:
10-18,000 Hz ±3 db.
Tracking Force: 1-3 gms.
£16.17.7

ADC.550XE

Frequency Response:
10-20,000 Hz.
Tracking Force: 2-2½ gms.
£20.6.6

ADC.27

Frequency Response:
10-22,000 Hz ±2 db.
Tracking Force: 12-1½ gms.
£71.8.9

ADC.26

Frequency Response:
10-24,000 Hz ±2 db.
Tracking Force: 1-1½ gms.
£74.18.7

ADC.25

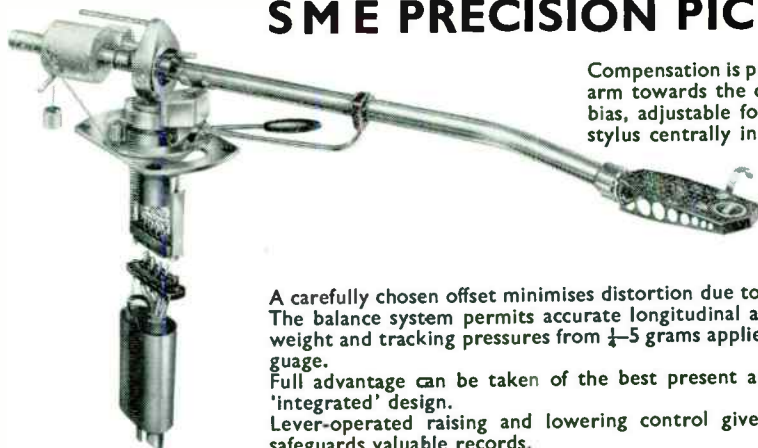
Frequency Response:
10-24,000 Hz ±2 db.
Tracking Force: 1-1½ gms.
Complete with two elliptical and one spherical stylus assemblies.

£100.11.0

ADC.10/E MK. II

Frequency Response:
10-20,000 Hz ±2 db.
Tracking Force: 1-1½ gms.
£46.4.2

SME PRECISION PICK-UP ARM SERIES II



Compensation is provided for the force which tries to move a pick-up arm towards the centre of a record. The arm is given an opposing bias, adjustable for various tracking pressures, which balances the stylus centrally in the groove so that it does not favour one wall.

Precision ball races and knife-edge bearings reduce pivot friction to approximately .020 gramme measured at the stylus. Cartridges can be used at optimum stylus pressure without the excess weight otherwise required to overcome friction in the pivots.

A carefully chosen offset minimises distortion due to tracking error.

The balance system permits accurate longitudinal and lateral balance of cartridges from 7-20 grams weight and tracking pressures from 1/4-5 grams applied precisely without the need for a stylus pressure gauge.

Full advantage can be taken of the best present and future cartridges, impracticable with arms of 'integrated' design.

Lever-operated raising and lowering control gives automatic slow descent. Fascinating to use—safeguards valuable records.

Choice of tone arm length to suit space available. If the motor board is big enough the 3012 is better, tracking error is even smaller and for studio use 16" records can be played. Otherwise the 3009 can be used with every confidence and indeed is the one most frequently employed.

Model 3009 Series II	Complete with L4 connecting lead with shell	£27 19 6 (£27.97½)
Model 3012 Series II	Complete with L4 connecting lead with shell	£29 19 6 (£29.97½)
D3 Adaptor .. .. .	.. .. .	£2 3 6 (£2.17½)
PI Plinth to increase height of pick-up when used with deep turntable units .. .. .	.. .. .	14 11 (75p)

SME S2 ULTRA LIGHT HEAD SHELL



Perforated aluminium. This is the lightest inter-changeable shell available. Weighing only 6 grams without mounting hardware it offers reduction of mass at the point of greatest effort. £2 5 0 (£2.25)

S.M.E. MODEL 2000 PLINTH SYSTEM



Designed to house SME pick-up arms in combination with leading makes of turntables. The basic plinth unit is solidly constructed and veneered in either Teak, Walnut or Rosewood. The acrylic lid has a stainless-steel reinforcing trim.

Approx. size: 24" x 18½" x 9".

Interchangeable motor boards are available ready cut and drilled to accept different combinations of arm and turntable.

Has a four-point spring suspension system with adjustable damping which carries the motor board within the plinth and protects it from acoustic feedback and external vibration.

Teak, Walnut or Rosewood

£31.6.0 (£31.30) Carr. 10/- (50p)



THORENS TD150 SERIES II

TD150A Mk. II Two-speed transcription turntable. 45/33½ r.p.m. Low speed 375 r.p.m. double synchronous motor. 12" heavy cast two-part turntable platter. Integrated pick-up arm with lowering device and light-weight shell. 15½" x 12¾" x 5".

£37.0.0 (£37.00) Carr. 10/- (50p)

TD150AB Mk. II As above with plinth.

£40.19.6 (£40.97½) Carr. 10/- (50p)

TXII (Not illustrated.) Tinted Plexiglass cover with metal hinge strip for above units. £3.13.6 (£3.67½)

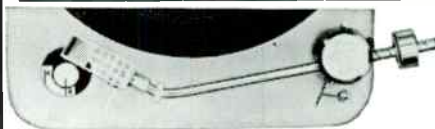
THORENS TD125

Transcription turntable with transistor-governed synchronous motor. Electronic speed selector and pinch control: 16-33½-45 r.p.m. Extremely low rumble level by rejection of any mechanical gears and by the mass-damping of the die-cast chassis. Dynamically balanced 12" diecast turntable guarantees low wow and

flutter values. Replaceable tone arm mounting board for 9" or 12" arms.

Price: £61.19.6 (£61.97½) Carr. 10/- (50p)

(Teak plinth optional extra)



THORENS TP14 ARM

Stylus is precisely adjustable between 1/4 and 4 gm. Built-in lifting and lowering device. Plug-in head accepts most standard pick-up cartridges.

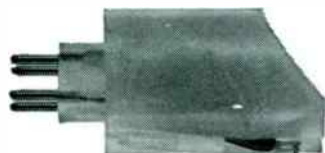
£21.11.0 (£21.55)

AUDIO TECHNICA MOVING MAGNET STEREO CARTRIDGES

An outstanding stereophonic cartridge featuring a series of unique concepts which are considered to be the key to good performance in high-fidelity cartridges. Among its many features is the fact that stylus replacement is extremely simple. It provides superb frequency response and extremely low cross-talk while, due to its light mass and high compliance, perfect tracking is maintained even at very low stylus pressure.



Model	AT.66	AT.33	AT.21	AT.35
Frequency Response ± 2 dB Hz	20-20000	20-20000	20-25000	20-25000
Channel Separation at 1 kHz	25 dB	27 dB	30 dB	30 dB
Output Voltage at 1 kHz 5 cm./sec.	4 mV	5 mV	4 mV	5 mV
Static Compliance cm./dyne	30×10^{-4}	23×10^{-4}	30×10^{-4}	23×10^{-4}
Tracking Force—gms.	0.5-2.0	0.5-2.5	0.5-2.0	0.5-2.0
Tracking Angle	15°	15°	15°	15°
Price	.5 and .7 and L.C. £5 2 6	.5 and .7 £9 2 6	.5 and .7 £7 6 2 Elliptical £12 19 7	.5 and .7 £15 19 6 Elliptical £20 0 0



DECCA DERAM CERAMIC CARTRIDGE

This ceramic cartridge is manufactured in a variety of types to cater for both mono and stereo requirements. Output 50 mV/cm./sec. (per channel). Frequency response ± 3 dB 18 Hz-18 kHz. Tracking weight 2-4 grams (transcription type). Stereo Transcription Cartridge, white outer shell—red pocket. £4 3 6

EAGLE TC.801



Universal turnover Cartridge with sapphire stylus for LP and 78. 15/-



JAPANESE CRYSTAL CARTRIDGES

High output type, complete with sapphire stylus. Turnover head. Std./L.P. Standard fixings.

Mono 12/6 Stereo 19/6

B.S.R. CRYSTAL STEREO CARTRIDGES SX5H

Sapphire stylus. Normal price 49/3. Our Price 25/-

AUDIO TECHNICA AT.1005 PICK-UP ARM



Universal type with plug-in type head shell of European standard. Direct reading stylus pressure control system with sliding ring weight mounted on the front arm pipe. Calibration at every 0.5g with maximum of 3g. Anti-skating device provided.

SPECIFICATIONS

Balancing: static
Over-all Length: 320 mm
Effective Length: 240 mm

Overhang: 15 mm
Tracking Error (less than): 1° 30"
Recommended Cartridge Weight: 5-24 grs
£16.5.0 (£16.25)

ACOS CARTRIDGES



GP93 High compliance stereo cartridge crystal. Turnover sapphire stylus. 22/6



GP67-2 Turnover crystal. Mono sapphire stylus. 15/-



GP91-3S/C High compliance. Turnover crystal. Mono compatible for stereo records. Sapphire stylus. 19/6

GP91 High compliance. Turnover crystal. Mono sapphire stylus. 19/6



GP94 High quality stereo cartridge. Ceramic. Turnover sapphire stylus. 29/6

AUDIO DEVELOPMENTS



AD309K PICK-UP ARM WITH MAGNETIC CARTRIDGE

£8.19.6

This new AUDIO DEVELOPMENT precision counterbalanced pick-up arm is ready fitted with the outstanding AD76K stereo magnetic cartridge. The arm is constructed of brass throughout, heavily chrome plated, using needle and miniature ball race bearing. Coarse and fine balance adjustment is provided. The fixed head has standard $\frac{1}{8}$ " mounting centres and is finished in black enamel with chrome lifting handle. Technical details: Overall length 285 mm; needle to pivot length 223 mm; offset angle 24°; overhang 10 mm. Requires single $\frac{7}{16}$ " diameter mounting hole. Completely wired, with all fixing nuts and washers. Arm rest also supplied.



AD76K

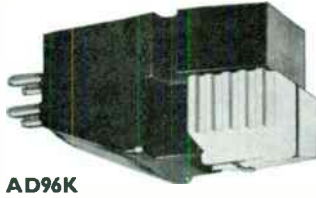
Specification

Type: Stereo magnetic
Frequency Response: 20–20,000 Hz
Output Voltage: 5 mV (1 kHz, 5 cm/sec.)
Stylus: Diamond LP 0.7 mil, mono compatible
Channel Separation: 20 dB
Compliance: 10×10^9 cm/dyne
Tracking Force: 2 gms—0.5 gm
Mounting: Standard $\frac{1}{8}$ " centres

£4.0.0

Replacement stylus type

J5P1 £1.18.6



AD96K

STEREO MAGNETIC CARTRIDGE Specification:

Type: Stereo magnetic
Frequency Response: 20–20,000 Hz
Sensitivity: 5 mV
Stylus: Diamond LP mono compatible
Channel Balance: ± 1 dB
Channel Separation: 20 dB
Compliance: 12×10^9 cm/dyne
Tracking Force: 2 grammes
Mounting: $\frac{1}{8}$ " centres

£5.2.6

Replacement stylus type

Y9605 £2.5.6

NEAT V70 AND V70E MAGNETIC CARTRIDGE

Until recently most budget systems made use of ceramic cartridges due to their lower price, and because most budget priced amplifiers were not sensitive enough to handle the low output magnetic type of cartridge.

Now, however, most amplifiers are sensitive enough to handle magnetic cartridges, and with the price of the Neat B70 in the "ceramic" range it becomes the ideal unit for use in budget systems.



TECHNICAL SPECIFICATIONS V70

Output: 5 mV 100 Hz 5 cm/sec
Frequency Range: 20–20,000 Hz
Separation: 30 dB at 1,000 Hz
Compliance: 5×10^9 cm/dyne
D.C. Resistance: 800 ohms
Load Impedance: 50 k
Playing Weight: 1.5–3 gms
Stylus: 0.5 mil diamond

£3.19.6

For improved tracking and frequency response the V70 cartridge is available in an alternative version with elliptical stylus. This is designated Mod V70E.

Frequency Range: 18–22,000 Hz. Stylus 0.2 x 0.7 elliptical diamond.

£6.16.0

NEAT V60MH AND V60MHE MAGNETIC CARTRIDGE

The Neat V60 cartridge is a new introduction from Neat in the lower medium price range. Two versions are available: V60MH with round stylus and V60MHE with elliptical stylus.

V60MH
Frequency Response: 20–20,000 Hz
Sensitivity: 4 mV at 1,000 Hz
Load Resistance: 30 k–1,000 k
Load Resistance: 30 k–1,000 k
Channel Separation: 30 dB at 1,000 Hz
Channel Balance: ± 1 dB at 1,000 Hz
Playing Weight: 1.0–3.0 gms

£7.4.6

V60MHE
Frequency Response: 18–22,000 Hz
Sensitivity: 4 mV at 1,000 Hz
Load Resistance: 30 k–1,000 k
Channel Separation: 30 dB at 1,000 Hz
Channel Balance: ± 1 dB at 1,000 Hz
Playing Weight: 1.0–3.0 gms

£9.16.0



EAGLE LC07 MOVING MAGNET STEREO CARTRIDGE



This is one of the most recent items introduced into the Eagle range and is already proving to be a best-seller. It offers transcription moving magnet quality at the same price as many ordinary ceramic cartridges. Reproduces music effortlessly with no trace of listening fatigue.

Output: 7 mV per channel. Frequency Range: 20–21,000 Hz. Channel Balance: ± 1 dB. Channel Separation: 28 dB. Recommended Stylus Pressure: 1.5–2.5 grams. Stylus Radius: 0.7 mil diamond. Compliance: 12×10^9 cm/dyne.

£62.6

Replacement Stylus
No. LCS07 £3.18.11

EAGLE LC05 STEREO MAGNETIC CARTRIDGE



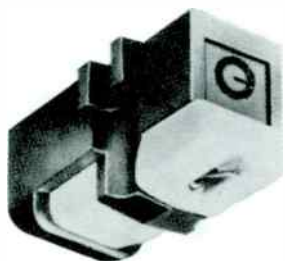
This magnetic cartridge, with 0.7 mil diamond stylus, offers top quality at an astonishingly low price. Will give impeccable reproduction throughout a long life.

Output: 6 mV per channel. Frequency Range: 30–18,000 Hz. Channel Balance: ± 1.5 dB. Channel Separation: 20 dB. Recommended Stylus Pressure: 2–4 grams. Stylus Radius: 0.7 mil diamond. Compliance: 9×10^9 cm/dyne.

£4.7.6

Replacement Stylus
No. LCS05 £2.7.6

GOLDRING 800 RANGE OF FREE-FIELD CARTRIDGES



The Goldring 800 series of True Transduction cartridges has been developed on the unique "Free Field" principle which allows even the most delicate groove-stored signals to be accurately relayed and re-created with uncompromising precision. The minimum-mass sensing element is precisely pivoted at its centre of gravity to provide fine transients and eliminate the thick, hazy lack of definition associated with the indeterminate pivoting of conventional cantilevers. Each cartridge in the Goldring 800 "Free Field" series tracks unerringly at low forces to re-create the finer, subtler shades of sound.

Goldring 800 H £7.2.6

Designed for inexpensive changers to track between 2½–3½ grams and has a high output of at least 8 mV.

Goldring 800 £7.10.0

Designed for standard arms and changers where the requirements of high fidelity and robustness usually conflict.

Goldring 800E £11.19.6

Designed for transcription arms and a micro-elliptical diamond is fitted to a finer cantilever, end damped against natural tube resonances, and is accurately terminated in a special conical hinge to give pin-point pivoting.

Goldring 800 Super £16.16.0

For those to whom perfection is barely good enough. Extraordinarily low mechanical impedance for ultimate tracking capabilities is achieved by a duopivoting arrangement, membrane controlled to avoid any longitudinal or torsional modes which could blemish its exceptionally smooth and extended response. Each cartridge is supplied with its individual curve and calibration certificate.

GOLDRING CS90 AND CS19E CARTRIDGES

These are a stereo-ceramic cartridge with excellent frequency response and cross-talk separation. Low tip mass, replaceable diamond stylus (CS90/5—0.0005" tip radius; CS90/7—0.0007" tip radius; CS91/E Elliptical) coupled with high compliance enables these cartridges to be played at low tracking weights.

CS90 £4.2.6

CS91/E £6.2.6



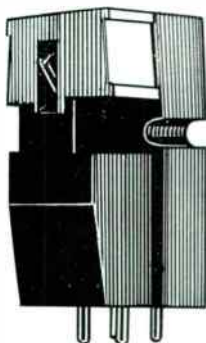
NEW GOLDRING 850 STEREO MAGNETIC CARTRIDGE



Type:	Magnetic—stereo and mono
Frequency Response:	20–18,000 Hz
Sensitivity at 5 cm/sec.	8 mV
Separation:	20 dB at 1 kHz
Load:	47 k–100 k ohms
Stylus Point	0.0007" diamond
Tracking Weight:	2–3½ grams
Head Weight:	7 grams
Connection:	4 pin
Fixing:	Standard ¼" centres
Mu-Metal Shield for hum protection.	
Removable Stylus	

PRICE £5.2.6

TELETON NM33 STEREO CARTRIDGE



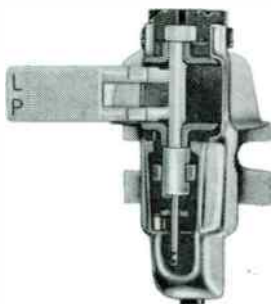
The first of a new range of stereo cartridges—the NM33 has already won popular approval for its performance rating and budget price.

TECHNICAL DATA

Type:	Stereo moving magnet
Output:	9 mV (at 1,000 Hz 5 cm/s)
Separation:	20 dB (at 1,000 Hz)
Compliance:	5 × 10 cm/dyne
Stylus:	0.7 mil diamond
Weight:	9.5 grams
Frequency Response:	20–20,000 Hz
Channel Balance:	2 dB (at 1,000 Hz)
Recommended Load:	100 k
Tracking Force:	3 grams
Mounting:	E.I.A. (¼")

£2.19.6

SONOTONE STEREO CERAMIC CARTRIDGES



9TAHCD. High compliance stereo ceramic cartridge with diamond styli.

Output: 55–85 mV. Tracking weight: 1–3 grammes.

NORMAL PRICE £4 0 0

OUR PRICE £2 7 6

(Also available with G. BRACKET to fit Garrard 2025 T/C Changers.)

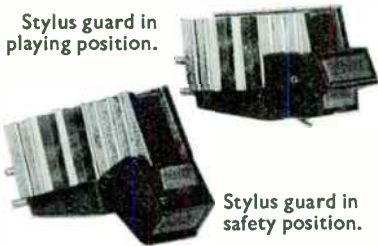
SHURE CARTRIDGES and STYLII

MODEL V15 TYPE II (IMPROVED) STEREO-DYNETIC CARTRIDGE

Tracks at $\frac{3}{4}$ -1 $\frac{1}{2}$ grammes. Frequency response 20-25,000 Hz. Bi-radial elliptical diamond stylus. **£30.0.0**

Replacement Stylus Assembly, **Model VN15E** **£14.13.6**

Stylus guard in playing position.



Stylus guard in safety position.

SERIES M75 TYPE 2 HI-TRACK STEREODYNETIC CARTRIDGES



MODEL M75E TYPE 2 Tracks at $\frac{3}{4}$ -1 $\frac{1}{2}$ grammes. Frequency response 20-20,000 Hz. Bi-radial elliptical diamond stylus. **£16.10.0**

Replacement Stylus Assembly, **Model N75E Type 2** **£10.6.6**

MODEL M75EJ TYPE 2 Tracks at 1 $\frac{1}{2}$ -3 grammes. Frequency response 20-20,000 Hz. Bi-radial elliptical diamond stylus. **£15.19.6**

Replacement Stylus Assembly, **Model M75EJ Type 2** **£8.17.6**

MODEL M75G TYPE 2 Similar to M75E but fitted with spherical diamond stylus, $\frac{3}{4}$ -1 $\frac{1}{2}$ grammes tracking. **£11.19.6**
Replacement Stylus Assembly, **Model N75G Type 2** **£7.17.6**

MODEL M75-6 TYPE 2MB Ideal for upgrading systems using units and arms tracking at 1 $\frac{1}{2}$ -3 grammes. Spherical stylus. **£11.19.6**

Replacement Stylus Assembly, **Model N75-6 Type 2** **£6.13.0**

Stylus Assembly for 78 records (for V15 Type II and M75 Series), **Model N75-3** **£65.0.0**

MODEL M55E STEREO-DYNETIC CARTRIDGE



Tracks at $\frac{3}{4}$ -2 grammes. Frequency response 20-20,000 Hz. Bi-radial elliptical diamond stylus. **£10.10.0**

Replacement Stylus Assembly, **Model N55E** **£7.19.6**

MODEL M44E STEREO-DYNETIC CARTRIDGE



Tracks at 1 $\frac{1}{2}$ -4 grammes. Frequency response 20-20,000 Hz. Bi-radial elliptical diamond stylus. **£9.19.6**

Replacement Stylus Assembly, **Model N44E** **£7.10.0**

SERIES M44 STEREO-DYNETIC CARTRIDGES



Frequency response 20-20,000 Hz. Spherical diamond styli.

MODEL M44-5 for $\frac{3}{4}$ -1 $\frac{1}{2}$ grammes tracking. **£8.10.0**

Replacement Stylus Assembly, **Model N44-5** **£6.8.3**

MODEL M44-7 for 1 $\frac{1}{2}$ -3 grammes tracking. **£8.4.6**

Replacement Stylus Assembly, **Model N44-7** **£5.3.6**

MODEL M44C for 3-5 grammes tracking. **£8.4.6**

Replacement Stylus Assembly, **Model N44C** **£5.3.6**

Stylus Assembly for 78 records (for M55E and M44 Serie). **Model N44-3** **£68.3.0**

MODELS M31E, M32 STEREO-DYNETIC CARTRIDGES



Low-cost cartridges with bi-radial elliptical diamond styli, **MODEL M31E** for 1-2 grammes tracking. **£9.9.0**

Replacement Stylus Assembly, **Model N31E** **£7.8.6**

MODEL M32E for 2 $\frac{1}{2}$ -5 grammes tracking. **£8.15.0**

Replacement Stylus Assembly, **Model N32E** **£6.13.0**

MODEL M32-3 MONO-DYNETIC CARTRIDGE for 78 records. Frequency response 20-17,500 Hz. 2 $\frac{1}{2}$ -5 grammes tracking. Diamond stylus. **£8.17.6**

Replacement Stylus Assembly for 78 records (for Model M32-3 and Models M31E and M32E), **Model N32-3** **£5.3.6**

ORIGINAL SHURE STEREO-DYNETIC CARTRIDGE MODEL M3D-M



Tracking at 3-6 grammes this, the first of the Shure Stereo-Dynetic Cartridges is of almost universal application and ideal for any changer. **£5.15.0**

Replacement Stylus Assembly, **Model N3D** **£4.8.8**

GARD-A-MATIC CARTRIDGE HEAD ASSEMBLIES

The cartridge, mounted in a retractile safety suspension system provides scratchproof and bounceproof operation in high quality automatic turntables. Track at 1 $\frac{1}{2}$ grammes maximum. Frequency response 20-20,000 Hz. Bi-radial elliptical diamond styli.

MODEL M75E-95G TYPE 2 for Garrard SL95 **£17.19.6**



Replacement Stylus Assembly for Models M75E-G95 Type 2, M75E-D19. **Model N75E TYPE 2** **£10.6.6**

**EAGLE MODEL PRE402
STEREO PREAMPLIFIER**



The PRE402 allows amplifiers restricted to the use of ceramic or crystal pick-up cartridges to be used with any of the much more satisfactory moving magnet type of cartridges such as the Eagle LC07.

This small mains-powered unit can be installed in any turntable unit to transform the performance from just average to the excellent standard that is available from moving magnet cartridges.

Fully transistorised for complete reliability the PRE402 comes with dual phono sockets allowing it to be fitted in minutes.

Specification:

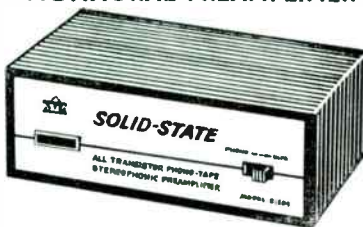
Frequency Range:
20–24,000 Hz equalised for magnetic cartridge.

Output:
180 mV suitable for ceramic/crystal input of any amplifier.

Dimensions:
100 × 63 × 38 mm.

£44.0 (£4-20)

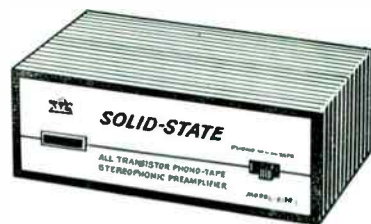
**E1303 SOLID-STATE
MONAURAL PREAMPLIFIER**



Fully transistorized, for use with monaural power amplifiers without low-level input. For magnetic cartridges, RIAA equalization circuit is incorporated into this unit and so is NARTB equalization circuit for tape heads. The equalization is obtained by switching input selector switch located on front panel to PHONO or TAPE. Input impedance: Up to 70 k ohms. Normal Input: 5 mV. Output: 2.74 V in distortion of less than 1%. Frequency Response: RIAA and NARTB curves. Power Source: AC117/240 V, 50–60 Hz. Size: 6" × 3½" × 2½".

£3.10.0 (£3-50)

**E1304 SOLID-STATE
STEREO PREAMPLIFIER**



TTC E1304 stereo pre-amplifier is designed for use with hi-fi power amplifier without low-level input. Most magnetic cartridges or tape heads can be used by connecting pre-amplifier to power amplifier.

Features: RIAA equalization for magnetic cartridges and NARTB equalization for tape. Input Impedance: Up to 70 k ohms. Normal Input: 5 mV. Output: 2.74 V in distortion of less than 1%. Frequency Response: RIAA and NARTB curves. Power Source: A.C. 117/240 V, 50–60 Hz. Size: 6" × 3½" × 2½".

£4.12.6 (£4-62½)



BIB TAPE EDITING KIT

Essential for quick and accurate editing. Kit contains (¼"—6.3 mm) Tape Splicer, 12 Tape Reel Labels, Razor Cutter, Splicing Tape, Tape Marker, and instruction leaflet, all in a plastic wallet.

£1.7.0 (£1-35)

**BIB CASSETTE TAPE EDITING
AND JOINING KIT**

A complete kit to enable cassette tapes to be edited easily, quickly and accurately.

The kit comprises, Cassette Tape Splicer (¼"—3.2 mm), 2 precision Tape Cutters, Tape Piercer, 10 Self-adhesive Cassette and Container Labels, Reel of Splicing Tape, 3 Tape Winders and Removers (2 spares), instruction leaflet, in handy plastic wallet.

£1.9.0 (£1-45)



**GOLDRING-LENCO
VV7 PREAMPLIFIER**



The Goldring-Lenco VV7 Stereo-Equaliser Preamplifier provides a simple and wholly effective answer to the problem of an amplifier too insensitive for today's high quality magnetic cartridges. Small enough to mount with a couple of screws under your turntable, it raises the very low output from the finest magnetic cartridges more than enough to ensure full output from any low-gain amplifier. Correct equalization is automatic.

£9.13.6 (£9-67½)



**BIB STYLUS AND
TURNTABLE CLEANING KIT**

Essential for maintaining stylus and turntable free from dirt. Kit contains special cleaning brush on free-standing base, absorbent cleaning cloth, bottle of approved non-flammable anti-static cleaner with full instructions.

Price: 6/10 (34p)

BIB HI-FUSTER

Made of special soft, fluff-free highly absorbent washable material. Particularly suitable for removing dust from audio and electronic equipment, plated, plastic, metal and glass surfaces, and for cleaning with a suitable liquid. 2/6 (12½p) per pack



WATTS RECORD CLEANING DEVICES

"WATTS" HI-FI PARASTAT Gramophone Record Maintenance and Stylus Cleaning Kit



Designed for use on NEW records or records in new condition to provide the high degree of record cleanliness necessary when using ultra lightweight pickups tracking at 2 grammes or less. An integral part of the kit is the new "Watts" Stylus Cleaner. Complete with instructions, 1 oz. New Formula dispenser, distilled water dispenser, spare pad cover and ribbons. **£2.3.9**

SPARES AND REPLACEMENTS FOR ALL "WATTS" PRODUCTS

1 oz. New Formula Dispenser	4/6
½ oz. New Formula Dispenser	2/6
Distilled Water Dispenser for Hi-Fi Parastat	4/-
Pad Cover and Ribbons for Hi-Fi Parastat	1/9
Pad Covers for Manual Parastat	2/-
Brush for Manual Parastat	12/6
Sponge Cover Pad for Manual Parastat	1/-
Set of Sponges for Humid Mop	2/6
Packet of 4 wicks for Disc Preener	2/-
Nylon Bristle and Plush Pad for Dust Bug	1/9

"WATTS" MANUAL PARASTAT



A dual-purpose record maintenance device. The nylon brush with its finely pointed filaments is able to deal with viscous antistatic films to restore felicity to older records or when kept immaculately clean and used in conjunction with the 'Humid Mop' is able to provide the highest degree of cleanliness yet attained. Complete with 1-oz. dispenser and Instructions. **Price: 45/-**

"WATTS" HUMID MOP. Cleans and conditions the "Parastat" bristles and velvet pads. Essential when using ultra-lightweight pickups. Complete with spare sponges and instructions. **5/-**

"WATTS" STYLUS CLEANER

Provides a safe and efficient method of cleaning the stylus. Complete with instructions. **6/3**



"WATTS" "DUST BUG"



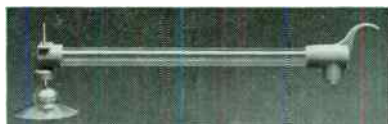
Automatic Record Cleaner. Easily fitted to any transcription type turntable—the 'Dust Bug' provides a simple and effective method of removing static and dust while the record is being played. Surface noise and record and stylus wear is reduced resulting in cleaner reproduction. **Complete with instructions. Price: 23/2**

"WATTS" DISC PREENER



Expressly designed for use with records which have not had previous anti-static treatment. The plush pile penetrates each groove giving ideal playing conditions for ultra-light stylus pressures. Reduces background noise ensuring greater listening pleasure. **Complete with instructions. Price: 6/9**

LENCOCLEAN RECORD CLEANING SYSTEM



Free-swinging arm with easily mounted adjustable pivot and fine brush which automatically dispenses special non-anti-static fluid in a narrow band in the stylus path on the record. Removes dust, eliminates electrostatic charges, reduces stylus/groove friction, cools the point of contact and leaves no hard deposits on record surface, supplied with a large bottle of fluid. **£2.10.0**

GOLDRING-LENCO STYLUS BALANCE STB2



An extremely accurate device, simple to use, without springs or complicated mechanism. Clearly graduated in grams (0-4 grams occupies ¾" of scale length, and the scale extends well beyond the pressures specified for modern cartridges). **17/-**

RECOMMENDED STEREO

1. Lafayette Stereo 10 Amplifier
Garrard A.40 II Changer
Stereo Cartridge
Plinth and Cover
Pair Teleton SA.1003 Speakers
Total Rec. List: £44.0.9
Our Price: £32.18.0
Carr. 20/-

2. LL Nova 5+5 Amplifier
Garrard A.40 II Changer
Stereo Cartridge
Plinth and Cover
Pair D.J. 3-Way Speakers
Total Rec. List: £64.11.3
Our Price: £48.12.0
Carr. 25/-

3. Teleton SAQ.203E Amplifier
Garrard 2025 T/C Changer
Stereo Cartridge
Plinth and Cover
Pair KN.824/3 Speakers
Total Rec. List: £72.0.0
Our Price: £52.7.6
Carr. 30/-

4. Teleton SAQ.203E Amplifier
Garrard SP.25 II
AD.76K Magnetic Cartridge
Plinth and Cover
Pair Minuette II Speakers
Total Rec. List: £74.16.7
Our Price: £55.19.6
Carr. 30/-

5. Teleton SAQ.203E Amplifier
Garrard SP.25 II
AT.66 Magnetic Cartridge
Plinth and Cover
2 Lafayette CR.50 Speakers
Total Rec. List: £88.11.4
Our Price: £67.12.6
Carr. 30/-

6. Teleton SAQ.205E Amplifier
Garrard SP.25 II
Neat V.70 Cartridge
Plinth and Cover
2 D.J. 3-Way Speakers
Total Rec. List: £76.10.0
Our Price: £58.7.0
Carr. 30/-

7. Sinclair 2000 Amplifier
Garrard SP.25 II
Shure M.3DM
Plinth and Cover
Pair KN.824/3 Speakers
Total Rec. List: £83.18.0
Our Price: £63.2.6
Carr. 30/-

8. Sinclair 2000 Amplifier
Garrard SL.65B
Shure M.3DM
Plinth and Cover
Pair Wharfedale Dentons
Total Rec. List: £102.12.1
Our Price: £77.13.6
Carr. 30/-

9. Lafayette LA.324 Amplifier
Garrard SP.25 II
Sure M.3DM
Plinth and Cover
2 Lafayette CR.50 Speakers
Total Rec. List: £88.11.4
Our Price: £72.0.0
Carr. 30/-

10. Lafayette LA.324 Amplifier
Garrard SP.25 II
Goldring G.800
Plinth and Cover
Pair Wharfedale Dentons
Total Rec. List: £101.19.9
Our Price: £74.18.6
Carr. 30/-

11. Metrosound ST.20 Amplifier
Garrard SP.25 II
Goldring G.800
Plinth and Cover
Pair Wharfedale S/Lintons
Total Rec. List: £116.18.9
Our Price: £87.15.0
Carr. 30/-

12. Metrosound ST.20 Amplifier
Goldring GL.69/2
Plinth and Cover
Goldring G.800
Pair Goodman Marimba
Total Rec. List: £134.16.2
Our Price: £107.6.0
Carr. 30/-

HI-FI PACKAGE DEALS

13. Arena F.210 Amplifier
 Garrard SP.25 II
 Goldring G.800
 Plinth and Cover
 Pair Arena HT.7 Speakers
 Total Rec. List: £112.13.9
Our Price: £83.17.0
 Carr. 30/-

14. Nikko TRM.30 Amplifier
 Garrard SP.25 II
 Plinth and Cover
 AT.66 Cartridge
 Pair Wharfedale Dentons
 Total Rec. List: £102.15.9
 Total Rec. List: £102.15.9
Our Price: £80.10.0
 Carr. 30/-

15. Nikko TRM.30 Amplifier
 Garrard SP.25 II
 Plinth and Cover
 Goldring G.800 Cartridge
 Pair Wharfedale S/Lintons
 Total Rec. List: £116.8.9
Our Price: £88.19.6
 Carr. 30/-

16. Trio KA.2000 Amplifier
 Garrard SP.25 II
 Plinth and Cover
 AT.66 Cartridge
 Pair Wharfedale Dentons
 Total Rec. List: £103. 5.9
Our Price: £82.11.0
 Carr. 30/-

17. Trio KA.2000 Amplifier
 Garrard SP.25 II
 Plinth and Cover
 Goldring G.800 Cartridge
 Pair Warfedale S/Lintons
 Total Rec. List: £116.18.9
Our Price: £90.18.6
 Carr. 30/-

18. Trio KA.2000 Amplifier
 Garrard AP.75
 Plinth and Cover
 Goldring G.800 Cartridge
 Pair Goodmans Marimba
 Total Rec. List: £132.15.1
Our Price: £101.19.0
 Carr. 30/-

19. Rotel 100 Amplifier
 Garrard SP.25 II
 Plinth and Cover
 AT.66 Cartridge
 Pr. Goodman Mambo Speakers
 Total Rec. List: £119.6.9
Our Price: £93.0.0

20. Rogers Ravensbrook Amplifier
 Garrard SP.25 II
 Plinth and Cover
 Goldring G.800 Cartridge
 Pair Ravensbrook Speakers
 Total Rec. List: £132.10.9
Our Price: £96.19.6
 Carr. 30/-

21. Rogers Ravensbrook Amplifier
 Goldring GL.69/2
 Plinth and Cover
 Goldring G.800 Cartridge
 Pair Wharfedale S/Lintons
 Total Rec. List: £144.0 4.1
Our Price: £115. 9.0
 Carr. 35/-

22. Teleton GA.101 Amplifier
 Garrard SP.25 II
 Plinth and Cover
 Goldring G.800
 Pr. Lafayette CR.50 Speakers
 Total Rec. List: £102.10.0
Our Price: £71.19.6
 Carr. 30/-

23. Teleton SAQ.501 Amplifier
 Garrard AP.75
 Plinth and Cover
 Goldring G.800
 Pair Goodman Mezzo
 Total Rec. List: £165. 0.11
Our Price: £118.19. 0
 Carr. 35/-

24. Goodman Maxamp 30
 Goodman 3025 Record
 Player with Cartridge
 Pair Goodman Maxim
 Total Rec. List: £132.10.3
Our Price: £103.18.0
 Carr. 35/-

RECOMMENDED STEREO

25. Sinclair Neoteric Amplifier
 Garrard AP.75
 Plinth and Cover
 Shure M.55E
 Pair Wharfedale Meltons
 Total Rec. List: £167.13.4
Our Price: £125. 9.0
 Carr. 35/-

26. Lafayette LA.85T Amplifier
 Goldring GL.69/2
 Plinth and Cover
 Goldring G.800 Cartridge
 Pair Goodmans Magnum K
 Total Rec. List: £180.10.0
Our Price: £141. 9.0
 Carr. 40/-

27. Nikko TRM.40 Amplifier
 Garrard AP.75
 Plinth and Cover
 Shure M.75G II
 Pair Wharfedale Meltons
 Total Rec. List: £158.7.0
Our Price: £120.8.6
 Carr. 40/-

28. Nikko TRM.40 Amplifier
 Goldring GL.69/2
 Plinth and Cover
 Goldring G.800
 Pair Kef Celeste II
 Total Rec. List: £156.16.0
Our Price: £123.10.0
 Carr. 40/-

29. Armstrong 521 Amplifier
 Goldring GL.69/2
 Plinth and Cover
 Goldring G.800E
 Pair Goodman Mezzo
 Total Rec. List: £174. 9.1
Our Price: £135.17.0
 Carr. 40/-

30. Armstrong 521 Amplifier
 Goldring GL.75
 Plinth and Cover
 Goldring G.800E
 Pair Kef Conchorde
 Total Rec. List: £213.0.0
Our Price: £168.6.6
 Carr. 40/-

31. Armstrong 521 Amplifier
 Thorens TD.150AB II
 TX.II Cover
 Shure M.75E II
 Pair Goodmans Magnum K
 Total Rec. List: £209.1.0
Our Price: £167.1.6
 Carr. 40/-

32. Trio KA.2500 Amplifier
 Garrard AP.75
 Plinth and Cover
 Goldring G.800E
 Pair Wharfedale Meltons
 Total Rec. List: £163.12.0
Our Price: £126.18.6
 Carr. 40/-

33. Trio KA.2500 Amplifier
 Goldring GL.69/2
 Plinth and Cover
 Goldring G.800
 Pair Goodman Mezzo
 Total Rec. List: £164.12.0
Our Price: £131. 0.0
 Carr. 40/-

34. Trio KA.2500 Amplifier
 Goldring GL.75
 Plinth and Cover
 Goldring G.800E
 Pair Kef Conchorde
 Total Rec. List: £209.0.0
Our Price: £168.7.0
 Carr. 40/-

35. Nikko TRM.50 Amplifier
 Goldring GL.75
 Plinth and Cover
 Goldring G.800E
 Pair Goodman Magnum K
 Total Rec. List: £208. 4.0
Our Price: £163.16.0
 Carr. 40/-

36. Nikko TRM.50 Amplifier
 Thorens TD.150AB II
 TX.II Cover
 Shure M.75E II
 Pair Wharfedale Dovedale II
 Total Rec. List: £209.17.0
Our Price: £170.12.0
 Carr. 40/-

HI-FI PACKAGE DEALS

37. Leak Stereo 30 Plus
 Goldring GL.75
 Plinth and Cover
 Goldring G.800E
 Pair Mini Sandwich Speakers
 Total Rec. List: £189.0.0
Our Price: £148.6.6
 Carr. 40/-

38. Leak Stereo 30 Plus
 Thorens TD.150AB II
 TX.11 Cover
 Shure M.75E II
 Pair Goodman Magnum K
 Total Rec. List: £212.11.0
Our Price: £169. 1.6
 Carr. 40/-

39. Rogers Ravensbourne Amp.
 Goldring GL.75
 Plinth and Cover
 Goldring G.800E
 Pair Wharfedale Dovedale III
 Total Rec. List: £213. 0.0
Our Price: £165.11.0
 Carr. 40/-

40. Rogers Ravensbourne Amp.
 Thorens TD.150AB II
 TX.11 Cover
 Shure M.75E II
 Pair Goodmans Magnum K
 Total Rec. List: £217.1.0
Our Price: £172.7.0
 Carr. 40/-

41. Leak Stereo 70
 Goldring GL.75
 Plinth and Cover
 Goldring G.800E
 Pair Goodman Magnum K
 Total Rec. List: £221.14.0
Our Price: £172. 5.6
 Carr. 40/-

42. Leak Stereo 70
 Thorens TD.150AB II
 TX.11 Cover
 Shure M.75E II
 Pair Leak Sandwich
 Total Rec. List: £235.7.0
Our Price: £180.12.6
 Carr. 40/-

43. Leak Stereo 70
 Garrard SL.95B
 Plinth and Cover
 Goldring G.800E
 Pair Kef Concerto
 Total Rec. List: £252.18.7
Our Price: £197. 8.6
 Carr. 40/-

44. Armstrong S26 Tuner/Amp.
 GL.75 Goldring
 Plinth and Cover
 Goldring G.800E
 Pair Goodman Magnum K
 Total Rec. List: £254.18.3
Our Price: £201.16.0
 Carr. 40/-

45. Trio TK.20T Tuner/Amp.
 Garrard SP.25 II
 Plinth and Cover
 Goldring G.800
 Pair Wharfedale Dentons
 Total Rec. List: £159.0.9
Our Price: £128.4.0
 Carr. 35/-

46. Lafayette LR.100 Tuner/Amp.
 Garrard SP.25 II
 Plinth and Cover
 AT.66 Cartridge
 Pair Goodman Mambo
 Total Rec. List: £151.2.7
Our Price: £125.2.0
 Carr. 35/-

47. Teleton F.2000 Tuner/Amp.
 Garrard A.40 II
 Stereo Cartridge
 Plinth and Cover
 Pair Teleton SB.1202 Speakers
 Total Rec. List: £94.11.3
Our Price: £64.18.0
 Carr. 30/-

48. Teleton CRIOT Tuner/Amp.
 Garrard 2025T/C
 Stereo Cartridge
 Plinth and Cover
 Pair Teleton SA.1003 Speakers
 Total Rec. List: £71.11.3
Our Price: £45.0.0
 Carr. 25/-

PHILIPS TAPE RECORDERS



PHILIPS FAMILY FOUR-TRACK RECORDER 4307

Elegant looks, precision design. Simple operation and outstanding reproduction make this a machine of which to be really proud. There are four tracks with facilities for mono playback of two parallel tracks, monitoring facilities, tone control and tape position indicator. Output 2 watts. External loudspeaker socket.

Size: 16" x 11½" x 5½". Speed: 3½ i.p.s. 7" reels.

£40.15.0 Carr. 10/-



PHILIPS DE LUXE FOUR-TRACK RECORDER 4308

Sensibly priced, high-quality reel-to-reel recorder. Mono recording and playback; stereo/playback, four tracks, tape position indicator, tone control. Fully transistorised. Duoplay, Multiplay facilities.

Size: 16" x 11½" x 5½". Speeds: 3½ i.p.s., 1½ i.p.s. 7" reels.

£50.6.6 Carr. 10/-

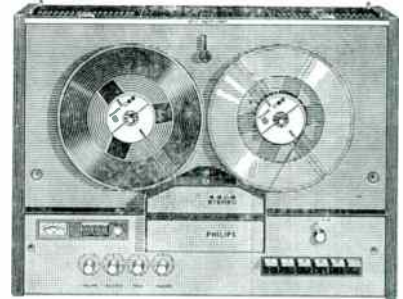


PHILIPS HI-FIDELITY STEREO RECORDER 4407

Brilliantly designed to bring you the full exciting realism of stereophonic sound, this machine has stereo and mono recording and playback; Duoplay and Multiplay; a public address amplifier, independent treble and bass controls. Plus mixing facilities. 3 Speed/7" reels.

(Supplied less microphone.)

£88.6.8 Carr. 10/-



PHILIPS STEREO TAPE RECORDER 4404

The breathtaking reality of stereo in a vertical or horizontal recorder. Four tracks, two speeds, illuminated VU meter, cardioid moving-coil microphone. Monitoring and playback by means of built-in loudspeakers.

Size: 19" x 13½" x 7½". Speeds: 7½, 3½ i.p.s. 7" reels.

£67.0.0 Carr. 10/-



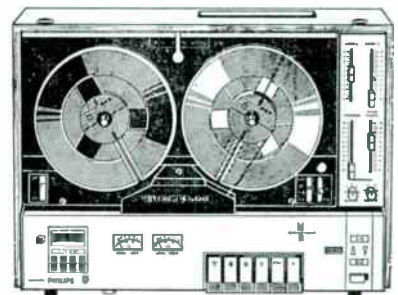
PHILIPS HIGH-FIDELITY STEREO TAPE RECORDER 4408

The very latest in tape recorder design: Four-track mono or stereo recording/playback at three speeds; built-in parallel track playback; Duoplay and Multiplay facilities; automatic tape-positioning and illuminated track selection indicator. 3 Speed/7" reels.

Size: 20" x 13½" x 9".

(Supplied less microphone.)

£104.0.0 Carr. 10/-



PHILIPS N4500 HIGH-FIDELITY STEREO RECORDER (DECK ONLY)

A high-quality tape recorder, four-track stereo with Multiplay and Duoplay, sliding controls. Horizontal or vertical operation. Must be connected to an external amplifier. 3 Speed/7" reels.

Size: 20" x 13½" x 9".

(Supplied less microphone.)

£105.10.0 Carr. 10/-

PHILIPS TAPE RECORDERS



PHILIPS MODEL EL3302 BATTERY PORTABLE CASSETTE RECORDER

Fully transistorized for portability and reliability, this recorder gives instant, brilliant playback. It's easy to use. There's a single control for record, playback, fast wind and re-wind. And a microphone remote stop/start control. There's also an anti-erase device, a window for rapid checking of tape, and recording level meter to indicate battery strength during playback. It comes with a handy carrying case. Batteries 5 x LPU11. Size: 8½" x 6½" x 2½".

£22.10.0 Carr. 5/-



PHILIPS MODEL 2200 CASSETTE PLAYER

The magnificent "Mood Matcher", trim, streamlined 1970's style Musicassette player. Fully portable; long-life batteries provide 16 hours' use. All-transistor amplifier. Size: 10½" x 6½" x 2½". Batteries: 6 x U11.

£11.13.6 Carr. 5/-



PHILIPS MODEL 2500 MAINS OPERATED STEREO CASSETTE PLAYER

The really inexpensive way to enjoy both stereo and mono musicassettes. No tape threading—just snap in a cassette. It's as easy as that. 2500 is mains operated and easily connected to home stereo or monophonic amplifier/radio and loudspeaker system. Stereo pre-amplifier is fully transistorised for reliability and instant use.

Size: 8¾" x 5¾" x 2¾".

£20.15.0 Carr. 7/6



PHILIPS BATTERY PORTABLE TAPE RECORDER N4200

Records and plays anywhere. Exceptionally good sound reproduction; transistorised for instant playback and portability; gives up to 40 hours playing time on six U2 batteries. Takes 3" or 4" reels with the lid removed. Speed 1½ i.p.s. Size 11½" x 3¾" x 8¾".

£29.7.6 Carr. 7/6

Optional extra: NP1618 Carrying Case £2.12.6

Mains Unit available (6502) £4.19.6 extra.



PHILIPS AUTOMATIC TAPE RECORDER 4302

Automatic tape recorder with brilliant, quality playback. Attractive streamlined design. Has manual or automatic recording control; tape position indicator, and external loudspeaker socket. Simple push-button controls. 5¾" reels. Speed 3¾ i.p.s./Twin track. Size 14½" x 10" x 5".

£29.19.6 Carr. 7/6



PHILIPS MODEL N2205 BATTERY/MAINS CASSETTE RECORDER

Go anywhere, play any time Cassette Recorder. Wide frequency range and high-efficiency loudspeaker ensures first-quality reproduction; fully transistorised for immediate use. Plays for up to 120 minutes using both sides of a CI20 Cassette. Size: 12" x 8¾" x 2¾". Batteries: 6 x U11.

£36.5.0 Carr. 7/6

TEAC A-20 STEREO CASSETTE DECK



£72.10.0 (£72.50) Carr. 10/- (50p)

FEATURES

Two TEAO Techno-built Precision Heads: Superior sound reproduction that equals the best from professional quality open-reel tape machines. **4-Pole Hysteresis Synchronous Motor:** A rugged and effective motor, the hysteresis synchronous type, assures stable tape run, high efficiency and ideal starting torque. **Easy Cassette Loading and Unloading:** A pop-up type tape housing which is operated with a simple push-button control. **Dual VU Meter:** Monitors recording and playback level of both channels independently. Also enables monitoring of stereo balance. **Uni-Directional Stereo Microphone:** Your A-20 is supplied with an advanced uni-directional stereo microphone. **Editing Control:** Pause button stops the tape run, while the tape remains in contact with heads. For instantaneous interruption of recording or playback at will. **Headphone Monitoring:** Input signal can be monitored with any type of 8-ohm headphones while recording. **3-Digit Push-button-Reset Index Counter:** Permits easy reference of a specific passage of recorded signal for cueing, editing and splicing. **Separate Sound Level Control:** Four independent control switches for right and left channels of input and output. **All-Silicon-Transistorized Pre-Amplifiers:** Offer light weight, small dimensions, low power consumption, lower operating temperature and prolonged life of electronics. **DIN Connector Walnut Finish Wooden Case:** With handsome compact styling and luxurious black finish on top.

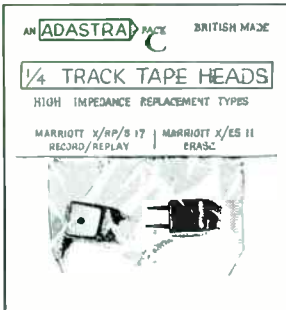
SPECIFICATIONS

Heads: Two TEAC Techno-built heads — Erase and Record/Playback; 4-track, 2-channel stereo. **Type of Tape:** Cassette Tape C60, C90 and C120 **Tape Speed:** 1 7/8 i.p.s. (±1%). **Fast Wind Time** Approx. 70 seconds for C60. **Wow and Flutter:** 0.2% or less. **Frequency Response:** 60–10,000 Hz. **Signal-to-Noise Ratio:** 45 db or more. **Crosstalk:** 25 db channel-to-channel at 1,000 Hz. 40 db between adjacent tracks at 100 Hz. (Above four are measured with TEAC Cassette Test Tape.) **Input:** Microphone: 600 ohms, 0.3mV minimum; Line: 120k ohms, 0.1V minimum. **Output:** Line: 50k ohms, 0.5V; Headphone: 8 ohms, 0.1 mW/DIN Connector. **Power Requirement:** 100/115/200/220V a.c. 50/60 Hz, 20 watts nominal. **Size:** 9 3/4" x 10" x 4 1/4". **Weight:** 10 lb.

ADAstra PACKED TAPE HEADS

SPECIFICATION								
TRACK	4(1/4) TRACK				2(1/2) TRACK			
IMPEDANCE	High		Medium		High	Medium(A)	Medium(B)	Common
FUNCTION	R, B	Erase	R/R	Erase	R/R	R/R	R/R	Erase
TYPE No.	H4RR	H4E	M4RR	M4E	H2RR	M2RR(A)	M2RR(B)	M2E
INDUCTANCE (1)	675 mH	"	100 mH	"	650 mH	250 mH	110 mH	"
GAP	0.0001"	2x0.005"	0.00015"	0.010"	0.00015"	0.00015"	0.00015"	0.010"
TRACK WIDTH	0.043"	0.056"	0.043"	0.056"	0.090"	0.090"	0.090"	0.120"
RECORD SIGNAL	34 uA	—	90uA	—	50 uA	85 uA	1.3 mA	—
BIAS CURRENT (2)	200 uA	—	1 mA	—	0.6 mA	0.9 mA	1.4 mA	—
BIAS VOLTAGE	45 V.	—	16 V.	—	30 V.	18 V.	11 V.	—
BIAS FREQUENCY	50 KHz	—	50 KHz	—	50 KHz	50 KHz	50 KHz	—
ERASE CURRENT (3)	—	55 mA	—	45 mA	—	—	—	30 mA
ERASE VOLTS	—	15 V.	—	15 V.	—	—	—	15 V.

(1) = Output of own recorded signal at 3 KHz at 7 1/2"/sec (2) = Nominal (3) = at 50 KHz



H.4RR & H.4E: Four-track Record/Replay and Erase High-impedance Heads. Only in pairs. **42/6 pair**

M.4RR & M.4E: Four-track Record/Replay and Erase Medium-impedance Heads. Only in pairs. (This type often used for solid-state and hybrid equipment.) **42/6 pair**

H.2RR: 2-track Record / Replay Medium-impedance Head. (Erase Head M.2E offered below.) **27/6**

M.2RR (A): Two-track Record/Replay Medium-impedance Head. Specification "A" below. (M.2E Head.) **27/6**

M.2RR (B): Two-track Record/Replay Medium-impedance Head. Specification "B" below. (M.2E Head.) **27/6**

M.2E: Two-track Erase Head for use with Record/Replay Heads H.2RR, M.2RR (A) and M.2RR (B). **12/6**

TELETON ANEX 511 COMPACT CASSETTE TAPE RECORDER

The specially designed, budget-priced recorder that sets new standards in portable tape recording. Operating from batteries or mains power supply, you can literally take it anywhere.

Record your children's voices or create a family album that will last for years. Weddings, christenings, birthdays or take it to parties—you'll find it great fun. Use it for studying, rehearsing, learning or simply recording your favourite music. A boon to businessmen as a desk companion, recording telephone discussions, conferences, or as a sales or training aid.

The cassette is standard the world over, so why not send a personally recorded message tape to those relatives far across the seas. There really is no end to the things you can do, or sounds you can record once you possess this amazing little machine.

Simple to use, with its easy push-button controls, stop/start microphone switch and speedy loading or removal of cassettes.

TECHNICAL DATA

Semi-conductors:	7 transistors, 1 diode
Tape Speed:	1½ i.p.s.
Track Width:	0.059" (1.5 mm)
Erasing System:	A.C. Erase
Frequency Response:	70–8,000 Hz
Signal-to-Noise Ratio:	Better than 40 dB
Level Indicator:	VU—Meters
Aux. Output:	15 k ohms 400 mV (Pin 3–5)



Speaker:	2" x 4" dynamic Impedance 8 ohms
Tape:	C30 to C120 cassettes
Tape Width:	0.15" (3.8 mm)
Recording System:	A.C. bias
Output Power:	0.7 watt (max.)
Wow and Flutter:	Within 0.4% watt, RMS
Power Source:	A.C.: 220 V 50 Hz D.C.: 7.5 V (5 x 1.5 V)
Aux Input:	50 K ohms 5 mV (Pin 1–4)
Microphone:	Dynamic 500 ohms
Dimensions:	(W) 6¾" x (H) 2¾" x (D) 9¼"
Weight:	4.4 lb.

£24.0.0 Carr. 7/6

TELETON T.710 5 REEL PORTABLE TAPE RECORDER

The perfect introduction to reel-to-reel recording, Teleton's T710 has already proved its popularity as a compact, hand-somely styled and efficient recorder.

It has capstan drive, two speeds, twin track, a.c. bias system that ensures good quality recording and fine sound reproduction. Powered by four 1.5 V batteries or ordinary (a.c.) household current, this set is equally at home, whether you use it indoors or outdoors.

TECHNICAL DATA

Semi-conductors:	7 transistors, 3 diodes
Tape Speeds:	1½ and 3¾ i.p.s.
Erasing System:	D.C. with erase head
Output Power:	800 mW (max.) 500 mW (undistorted)
Wow and Flutter:	Less than 0.3% at 3¾ i.p.s.
Power Source:	A.C.: 110/220/240 V D.C.: 6 V (4 x 1.5 V)
Speaker:	2½" x 4¼" PM Dynamic Impedance 8 ohms
Dimensions:	(W) 10¼" x (H) 13¾" x (D) 2¼"
Reel Sizes:	Up to 5"



Recording System:	Dapstan driven, a.c. bias
Recording Track:	Dual track
Frequency Response:	100–7,000 Hz
Signal-to-Noise Ratio:	Better than 40 dB
Level Indicators:	VU meter built-in
Weight:	Approx. 9 lb.

£29.0.0 Carr. 7/6

TAPE RECORDERS

AKAI 4000D STEREO TAPE DECK

A Superb Stereo Tape Deck enabling stereo enthusiasts to produce the ultimate in high-fidelity recordings.

- High-quality three-head system embodying the latest techniques, featuring an exclusive one micron gap recording and playback heads plus erase head.
- All-silicon transistorized pre-amplifier reduces hissing noise to a minimum.
- Sturdy mechanism providing excellent durability.
- Fine oil-finished wooden cabinet matching furniture and/or existing stereo systems.

OUR PRICE £69.19.6 Carr. 10/-

AKAI 4000 STEREO TAPE RECORDER

A complete stereo tape recorder for recording and playback.

OUR PRICE £99.19.6 Carr. 10/-

AKAI 1710L STEREO RECORDER

OUR PRICE £74.19.6 Carr. 10/-



TELETON FXB.510D SOLID STATE 4-TRACK STEREO TAPE RECORDER DECK



This is a de-luxe 7" 4-track stereo record/playback unit which will fit into your hi-fi set-up, offering either vertical or horizontal operation. Offers facilities for monaural or stereo recording and monaural or stereo playback by DIN jack output.

TECHNICAL DATA

Tape Speed:	7 $\frac{1}{2}$ ", 3 $\frac{3}{4}$ ", 1 $\frac{1}{2}$ " i.p.s.
Recording Time (1,200 ft.):	$\frac{1}{2}$ hour at 7 $\frac{1}{2}$ i.p.s.; 2 hours at 1 $\frac{1}{2}$ i.p.s.
Reel Size (Max.):	7"
Tape Counter:	3-digit with re-set button.
Motor:	4-pole condenser motor.
Recording Level Indicator:	2 μ V meter.
Volume Control:	2 pcs. for recording only.
Input Jacks:	Mic jack (standard phone jack in recording control compartment).
Frequency Respons	
(Measured at DIN Jack):	50-12,000 Hz \pm 6 db at 7 $\frac{1}{2}$ i.p.s.
	50- 7,000 Hz \pm 6 db at 3 $\frac{3}{4}$ i.p.s.
Size:	14 $\frac{3}{4}$ " (W) x 6 $\frac{1}{2}$ " (H) x 14" (D).
	A.C. 110/240V.

£52.10.0 Carr. 10/-

TELETON STP.800 SOLID STATE 8-TRACK STEREO CARTRIDGE HOME PLAYER COMPLETE WITH SPEAKERS

Features include Push-button Track Selector, Head Adjustment, Volume, Tone and Balance Controls, Automatic Track Changer and Track Indicator Lamp. Oiled walnut wood cabinet with matching speakers.

Uses: 12 transistors, 2 thermistors, 6 diodes

Controls: Volume Control, Tone Control, Balance Control, Head Adjustment, Push-button Track Selector.

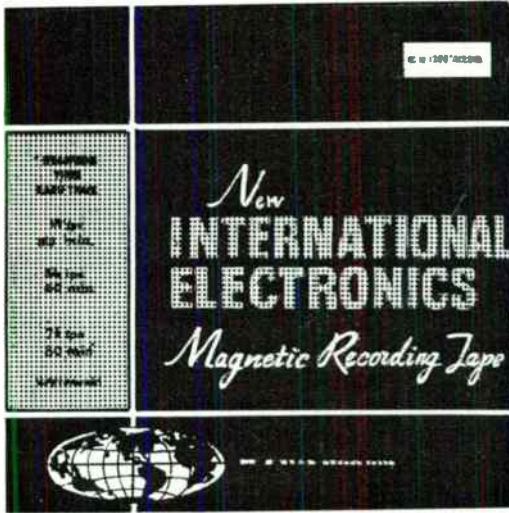
Size: Main Cabinet: 14 $\frac{1}{2}$ " x 10 $\frac{1}{4}$ " x 4".
Speaker Cabinet: 11" x 8" x 5 $\frac{1}{2}$ " each.
A.C. 220/240V.

£42.19.6 Carr. 10/-



'INTERNATIONAL' RECORDING TAPES

FAMOUS AMERICAN BRAND
RECORDING TAPE—NOW
BRITAIN'S FASTEST SELLING TAPE
High Quality — Low Cost



STANDARD PLAY TAPE			
5"	600 ft.	Acetate	8/6
7"	1200 ft.	Acetate	12/6
LONG PLAY TAPE			
3"	225 ft.	Acetate	3/6
5"	900 ft.	Acetate	10/-
5 1/2"	1200 ft.	Acetate	12/6
5 3/4"	1200 ft.	Polyester	16/-
7"	1800 ft.	Acetate	15/-
7"	1800 ft.	Polyester	20/-
DOUBLE PLAY TAPE			
3 1/2"	600 ft.	Polyester	10/-
5"	1200 ft.	Polyester	15/-
5 3/4"	1800 ft.	Polyester	22/6
7"	2400 ft.	Polyester	25/-
TRIPLE PLAY TAPE			
5 3/4"	2400 ft.	Polyester	39/6
7"	3600 ft.	Polyester	45/-

ALL BRAND NEW BOXED AND FULLY GUARANTEED
Special Discounts for Quantity

'SYNCHROTAPE'

BRITISH MADE HI-FIDELITY
RECORDING TAPE

OUTPERFORMS OTHER
BRANDS SELLING AT DOUBLE
THE PRICE



STANDARD PLAY TAPE			
3"	150 ft.	PVC	3/9
5"	600 ft.	PVC	12/-
5 1/2"	900 ft.	PVC	15/-
7"	1200 ft.	PVC	18/-
LONG PLAY TAPE			
2 3/8"	200 ft.	PVC	4/9
3"	225 ft.	PVC	5/3
4"	450 ft.	PVC	9/6
5"	900 ft.	PVC	15/-
5 3/4"	1200 ft.	PVC	18/-
7"	1800 ft.	PVC	23/-
DOUBLE PLAY TAPE			
2 3/8"	300 ft.	MYLAR	6/9
3"	300 ft.	MYLAR	6/9
4"	600 ft.	MYLAR	14/6
5"	1200 ft.	MYLAR	23/-
5 3/4"	1800 ft.	MYLAR	29/6
7"	2400 ft.	MYLAR	37/6
TRIPLE PLAY TAPE			
3"	450 ft.	MYLAR	11/-
4"	900 ft.	MYLAR	21/-
5"	1800 ft.	MYLAR	36/-
5 3/4"	2400 ft.	MYLAR	45/-
7"	3600 ft.	MYLAR	60/-



No. 41 SPlicing TAPE

A white pressure sensitive adhesive tape specifically designed for splicing magnetic tape.

$\frac{1}{2}$ " x 150' 3/6
 $\frac{7}{8}$ " x 66' 6/6
 $\frac{3}{4}$ " x 66' 4/6



No. 51 SENSING TAPE

For recorders with electronic sensing controls. A trim flexible and strong conductive foil tape with a pressure sensitive adhesive that sticks tight and stays clean.

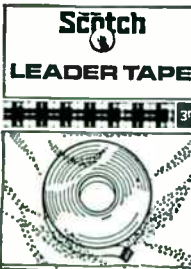
$\frac{3}{4}$ " x 150' 14/-



TAPE CLIPS

Ideal for holding the tape secure on the spool preventing spilling or tangling in storage, handling and shipment. Available in packets of ten.

2/6



LEADER TAPE

50' rolls of leader tape available in red, white, yellow, blue and green.

50' rolls 2/- each

No. 24 LEADER AND TIMING TAPE 6/-

PROFESSIONAL QUALITY TAPE CASSETTES FIRST GRADE. MADE IN U.S.A.



House in plastic library cases.

C60 2 x 30 min. 8/6 each 3 for 24/6
 C90 2 x 45 min. 12/6 each 3 for 36/-
 C120 2 x 60 min. 15/- each 3 for 43/6

Cassette Head Cleaner 11/3

MAXWELL TAPE CASSETTES



High quality compact cassettes made in Japan. Tough tensiled polyester used as tape base. Permanent antistatic treatment and special lubricant processed into the tape permits semi-permanent use without lowering tape capacity. Housed in plastic library boxes.

C60 2 x 30 min. ... 10/6 each
 C90 2 x 45 min. ... 14/3 each
 C120 2 x 60 min. ... 19/6 each
 (LESS 10% FOR DOZEN LOTS)

SYNCHROTAPE EDITING KIT

Specifically designed to meet all requirements for editing and splicing tape recordings, this kit is presented in crush-proof display pack and consists of:

1 Adastr "Cut and Trim" Splicer; 6 Tape Securing Clips; 4 Reels Coloured Leader Tape; 24 Self-adhesive Labels; 1 Reel Metallic Stop-foir!; 1 Copy of the SYNCHROTAPE; 1 Reel Adhesive Jointing Tape; 12-page Booklet with Recording Log. 32/6

E.M.I. TAPE ACCESSORIES

E.M.I. COLOURED LEADER TAPE

AP38/1 White AP38/2 Red
 AP38/3 Yellow AP38/4 Blue
 AP38/5 Orange AP38/6 Green
 AP38/7 Grey
 4/6 per 150 ft. reel

E.M.I. METALLIC STOP FOIL

Approx. 50 ft. in plastic container, sufficient for 50 tapes. API25 6/6

E.M.I. ADHESIVE JOINTING TAPE

Approx. 30 ft. in plastic container.
 API02 $\frac{3}{4}$ " 4/9 API03 $\frac{1}{2}$ " 7/6

E.M.I. VOICE LETTER

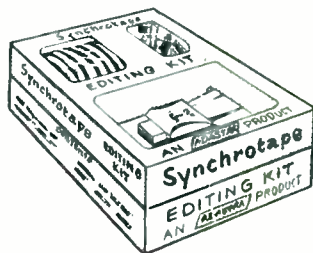
The most advanced design in mailing packs—40 min. playing time on 4 tracks at $3\frac{3}{4}$ I.P.S. V2/2 5/-

E.M.I. JOINTING BLOCK

Professional non-magnetic jointing block for precision splicing at 46° or 90°. API23 10/6

E.M.I. ACCESSORY KIT

3 dispensers of leader tape, 1 of stop foil, 1 of jointing tape, jointing block, 2 cutters in plastic tray. API24 37/6



CLEAR PLASTIC TAPE SPOOLS

ALSO SUITABLE FOR 8 MM FILM

2 $\frac{3}{8}$ " 1/6 each 17/- doz.
 3" 1/- each 10/- doz.
 4" 1/9 each 19/- doz.
 5" 2/- each 22/- doz.
 5 $\frac{1}{2}$ " 2/- each 22/- doz.
 7" 2/6 each 27/- doz.
 8 $\frac{1}{4}$ " 5/6 each 60/- doz.



BULK TAPE ERASER MODEL I-1004



A heavy-duty bulk recording tape eraser and cleaner with rotating spindle able to take all size tapes up to 10". Removes residual tape noise and ensures absolutely clean tape before recording. Rugged, non-magnetic bakelite top and metal case. On/Off pilot light, a.c. mains cord. Full instructions. (Also useful for removing magnetism from tools, metal parts and sensitive mechanisms.) £5.19.6

BIB TAPE SPLICER MODEL 20



For quick and accurate tape editing, enabling diagonal or butt joints to be made. Special chrome-plated clamps to hold tape in position. Mounted on a non-slip base. Supplied with razor cutter.

19/6



BIB TAPE HEAD MAINTENANCE

Specially designed to maintain the tape heads and other parts of the tape recorder in clean condition. Suitable for reel or cassette tape recorders.

Contents:

Bottle Bib Instrument Cleaner. Two blue tape head applicator tools. Two white tape head polisher tools. Ten applicator and polisher sticks. Double-ended brush. Packet cleaning tissues. Instruction leaflet; all in a folding plastic wallet. Price 16/6

Tape Head Maintenance Kit Replacement Packs

- Size F** Two blue head applicator tools. Price: 3/1 per pk.
Size G Two white head polisher tools. Price: 3/1 per pk.
Size H Twenty applicator and polisher sticks. Price: 1/- per pk.



COMPACT TAPE HEAD CLEANING KIT SIZE J

Invaluable for reel and cassette tape recorder and dictating machine owners.

1 Bottle of Bib Tape, Head and Stylus Cleaner,
 2 Blue Tape Head, Applicator Tools,

2 White Tape Head Polisher Tools,
 10 Applicator and Polisher Sticks,
 1 Hi-Fuster Cloth, all in plastic wallet.

9/6



OSMABET BULK ERASER

Suitable for any size spool and also de-magnetizers any type head. 200/250 volts a.c. 42/6

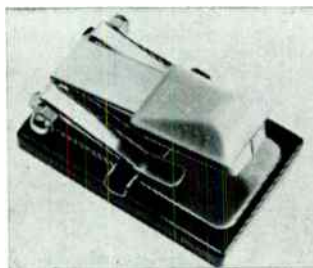


MARRIOT 4 TRACK TAPE HEADS

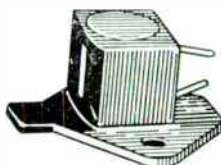
As fitted to Magnavox 363 tape deck. High impedance Record/replay. 65/-
 Low impedance Erase. 20/-



TP.100
 Suction Pad Telephone Pick-up Coil. 7/6



T635 Tape Splicer for editing and repair. With three blades. 17/6



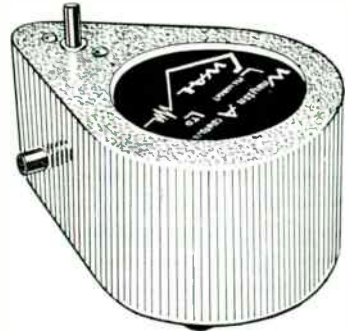
ACOS 4-TRACK TAPE HEADS

Erase Head No. TEL 1-6PW low impedance 20/-
 Record/replay head No. TRI-120/P/W medium impedance 65/-
 Record/replay head No. TRI-500/P/W high impedance 65/-

TAPE HEAD DEMAGNETISER TD79



Compact, easy to handle. Will remove magnetism from tape heads permitting improved recordings and through frequent use reduces harmonic distortion and noise level. 32/6



THE WAL BULK TAPE ERASER

Wipes both tracks, perfectly clean in under half a minute. Used in laboratories, colleges, schools, dealers' demo rooms, studios, offices, tape clubs, etc.

£10.10.0



EAGLE RH2 TAPE REEL HOLDERS

Will fit most tape recorders and firmly clamp the spool to the carrier to reduce spool chatter and keep the spools in place even in the vertical position.

4/6



EAGLE FSW.1
 Snap action Foot Control Switch, with skidproof rubber base pad. 22/6



ACOS MIC 39-1

The famous crystal stick microphone. Frequency response: 30-12,000 Hz. Sensitivity: -62 db ref. 1V/dyne/cm². Recommended load 4.7M ohms for above response. 32/6

ACOS MIC 91 CRYSTAL OMNI-DIRECTIONAL MICROPHONE



Frequency Response: 40-7,000 Hz
Sensitivity at 1 kHz: -50 dB ref.
1V/dyne/cm²
(3.2 mV)
Nominal Capacitance: 1150 pF at 20°C.
Recommended Load 1 M ohm 15/-

ACOS MIC 45

A new sensitive microphone carefully shaped for use in either hand or on a desk.



Frequency Response: 30-8,000 Hz.
Sensitivity: -52 dB ref.
1V/dyne/cm²
Recommended Load: 4.7 M ohm for above response.

17/6

ACOS MIC 40

A sensitive crystal hand or desk microphone. Frequency response 30-7,000 c/s. Sensitivity -52 db-ref. 1V/dyne/cm². Recommended load 4.7 M ohms for above response. 15/-



ACOS MIC 60

A new, sensitive, stick microphone. 19/6



EAGLE UD.50HL UNI-DIRECTIONAL DUAL IMPEDANCE MICROPHONE

Reproduces true sound, completely eliminating unwanted pick-up from sides or rear due to a sensitive uni-directional pick-up pattern. Spherical wire mesh screen, On/Off switch, 20 ft. detachable cable with plug. Dual impedance: 600 ohms low, 50k ohms high. Response: 100-12,000 Hz. Output -52 db. £7.2.6



EAGLE DM.58HL CARDIOID DUAL IMPEDANCE MICROPHONE

Superior performance under typical broadcasting conditions. Cardioid pick-up pattern to reduce any chance of feedback. Spherical wire mesh. "Pop" and "Boom" free screen. On/Off switch. 20 ft. detachable cable. Dual impedance: 200 ohms low, 50k ohms high. Response: 35-15,000 Hz. Output: -53 db. £8.19.6



EAGLE CRYSTAL MICROPHONE WITH STAND Model 300C

A very attractive and robust high-output microphone, complete with adjustable desk stand and detachable cable. Finished in metallic grey with chrome trim. Dimensions: 1 1/4" x 3 1/4". £2.12.6



EAGLE UD.76HL CARDIOID DUAL IMPEDANCE MICROPHONE

Top microphone in the Eagle Range, the UD.76HL is a studio quality instrument fitted with a Music/Speech contour control as well as a dual impedance switched transformer. For maximum cable length, regardless of impedance in use, the transformer is built into the heavy duty jack plug which can be instantly switched from one impedance to the other, thus enabling inputs to be changed in a second.

Impedance: Dual-600 ohms or 50k ohms. Response: 25-20,000 Hz. Sensitivity: At 50k ohms-56 db; At 600 ohms-76 db. Cord Length: 9 metres. Carrying Case. £17.10.0



EAGLE DM.73 OMNI-DIRECTIONAL DYNAMIC MICROPHONE

This omni directional dynamic stick microphone is a robust, good quality instrument intended for general P.A. and similar applications. It is ideally suited to hard use, including outdoors, due to special treatment of the diaphragm to withstand effects of humidity and temperature. Supplied complete with 100 mm diameter desk stand, clip-in holder and 6 metres of cable fitted with standard jack plug.

Impedance: 50k ohms. Response: 600-14,000 Hz. Average Output: 2.2mV. £5.2.6



EAGLE CM.73 CRYSTAL MICROPHONE

A well-styled low-cost stick microphone supplied complete with On/Off switch and 2 metres of cable fitted with a standard jack plug. A new type of high output cartridge ensures adequate loading for high impedance microphone inputs.

Impedance: 1M ohm. Response: 60-10,000 Hz. Average Output: 8mV. 23/6

MODEL BI20I DE-LUXE CRYSTAL MICROPHONE



Handsome black enamel and chrome microphone with on/off switch incorporated.

Supplied complete with stand, base and cord fitted with standard jack plug.

45/-

EXTRA SLIM DYNAMIC MICROPHONE MODEL DM.20H

An exciting new microphone featuring extra slim, solidly cast tapered case. Smooth response from 40-15,000 cps. and output of -52 db. Reproduces both voice and music without unwanted pick-up from sides or rear due to its sensitive pear shaped pick-up pattern. Impedance 50 kohms. Built-in on/off switch, and supplied with detachable shielded cable and stand adaptor.



85/-

CRYSTAL MICROPHONE INSERTS



1" diameter 4/6 each
1.38" diameter 4/6 each

"DYNA-SLIM" MICROPHONE

MODEL
MD-170
"DYNA-SLIM"
Microphone



- ★ High Impedance—50,000 ohms
- ★ On-Off Switch
- ★ "Quick-Slip" Adaptor

Dynamic, high output microphone with streamlined styling. Output level: 55 db. Smooth response from 60 to 10,000 c/s.

Omnidirectional head. External on-off switch. Slips on or off stand adaptor in a wink. Standard $\frac{3}{8}$ "-27 adapter permits tilting mike for multi-angle use. Satin black and chrome finish. Complete with detachable cable and connector. 8" long, $1\frac{1}{4}$ " max. dia. tapered barrel 7".

£3.9.6

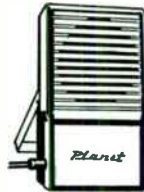


MODEL MC-10 QUALITY CRYSTAL MIKE

£1.5.0

Attractively styled crystal microphone for all general applications such as public address and home recording. Frequency response:

30-10,000 cycles. Output level: 52 db. Tilting head, attractive plastic case. Can be used on any stand with $\frac{3}{8}$ "-27 thread. Completely equipped with 5' plastic covered shielded cable. Grill diam. $2\frac{1}{4}$ ", depth $3\frac{1}{2}$ ", height 4".



PLANET CM-21

Crystal Microphone

Ideal for
Tape Recorders
etc.

only 10/-

NEW LAFAYETTE GENERAL PURPOSE DYNAMIC MICROPHONE MODEL PA-408

A hi-fidelity omni-directional microphone for recording, radio broadcasting, and PA applications, high impedance, 50k.

Lafayette is proud to offer a high quality omni directional dynamic microphone at such an unusually low price. Beautifully styled in a chrome-plated diecast frame that is equipped with an on-off switch. Specifically designed for recording radio broadcasting and public address applications. Features a "pop-proof" and "blast-proof" mylar diaphragm, and superior anti-feedback properties. Frequency response 100-10,000 cps Sensitivity 30 k. at 60 db. 600 ohms at 70 db.



£4.2.6



CM-10 DIE CAST CRYSTAL MICROPHONE

£1.9.6

Excellent for PA systems, home recorders and general applications. Frequency response 50

to 10,000 cycles. Output level: 52 db provides ample output for use with low gain amplifiers. Uses quality moisture sealed crystal; Die cast case in rich green baked enamel finish, with chrome grill. Completely equipped with 5' of shielded cable. Mike may be used on any stand with $\frac{3}{8}$ "-27 thread. Grill diameter $2\frac{3}{4}$ ", depth $4\frac{1}{4}$ ", height $4\frac{1}{2}$ ".



TEISCO DM-302

High quality
Dynamic Broadcast
Microphone

Sensitivity -60 db
Frequency Response
100-10,000 c/s
Impedance 50k ohms

£3.19.6



MODEL DM-307

Dynamic Microphone
Made of zinc-diecasting.
Plated with polished
chromium. Containing on-
off switch.

Impedance.....50k ohms
Sensitivity.....62 db (at 1,000 c/s)
Frequency response..100-10,000 c/s
Dimension.....300 x 260 (mm)

£4.4.0

**CARDIOID DYNAMIC
MICROPHONE EAGLE DM.31C**



Superb quality with ball head for distributed cardioid frontal pickup. Feed back is kept at a minimum. Ball head and body in chrome. Output: -52 db. Response: 40-13,000 cps. Impedance: 50 K ohms. With on/off switch, shielded cable and stand adaptor. **£6.7.6**

**PENCIL TYPE
DYNAMIC MICROPHONE
EAGLE MODEL DM.614**

Small size, light weight. 3-way microphone for desk, hand or neck use. High-impact plastic used throughout. Impedance 50 Kohms. Output: -58 db. Response: 100-10,000 cps. With cable, lavalier cord and base. 4" x 7/8". **38/6**



**CARDIOID DYNAMIC
MICROPHONE EAGLE DM.34C**



An ideal dynamic microphone with a cardioid pattern for communication, recording, Public Address and professional applications. Output: -55 db. Response: 50-13,000 cps. Impedance: 50 K ohms. With on/off switch, shielded cable and stand adaptor. **£5.7.6**

EAGLE CM.10



Low-cost crystal lapel microphone, with lapel clasp, lead and plug.

6/6

EAGLE CM.20



General purpose, low-cost crystal microphone with built-in wire stand. Dimensions: 60 x 42 mm.

12/-

**MINIATURE MAGNETIC
TIE CLIP MICROPHONE
TYPE STM.21**



Size only 13 x 19 x 7 mm. Impedance: 1.6 k ohms. Complete with lead and miniature jack plug.

22/6 each

**DUAL IMPEDANCE
DYNAMIC MICROPHONE
EAGLE MODEL DM.18HL**

Flexible dynamic microphone for any application. Ruggedly constructed with tapering body and removable base for desk, floor or hand use. Impedance dual: 600 ohms low, 50 K ohms high. Output: -58 db. Response: 70-12,000cps. With desk stand, floor stand adaptor and cable. **£6.7.6**

**DUAL IMPEDANCE
DYNAMIC MICROPHONE
EAGLE MODEL DM.16HL**



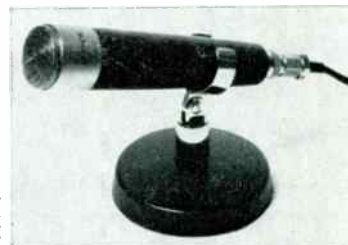
A high quality omnidirectional microphone designed to give outstanding performance for applications where high quality is essential, yet cost is an important factor. Features a 'pop-proof' and 'blast-proof' mylar diaphragm and superb anti-feedback properties to allow greater working distance from microphone. Built-in high or low impedance switch, allowing longer mike lines without frequency loss. Impedance dual 50 ohm low, 50 Kohms high. Output -62 db. Response: 40-15,000 cps. With impedance switch, cable and stand adaptor. **£5.10.0**

6 1/2" x 2" x 1 1/2".

**SLIM CRYSTAL MICROPHONE
EAGLE MODEL 200.C**



Rugged construction and long slim streamlined styling. Slips on or off stand adaptor in a wink. Finished in black with chrome trim. With on-off switch, detachable cable and connector. 7" x 1 1/4". **45/-**



**FOSTER DFIX
DYNAMIC MICROPHONE**



Certainly one of the most widely used and respected of microphones on the British market, this dynamic pencil model has been further improved for this season. The 3¼" microphone is now in matt black with recessed silver insert cover and a clever new matching silver and black stand includes a "U"-shaped adjustable bracket with fitting suitable for direct connection on to floor stands. Frequency Response: 100-10,000 Hz. Supplied with stand, "U" stem and lavalier cord and available in three impedance choices—High: 50 k ohms; Medium: 600 ohms; Low: 50 ohms. (During the early currency of this catalogue, some models of the DFI microphone may be in the previous two-tone finish with a chrome stand.)

£2.12.6

**MDF802 SPEECH MICROPHONE IN
PRESENTATION CASE**



Intended specially for P.A. work, commenting and general speech application this beautifully styled microphone is matt black and chrome, features a built-in windshield. Frequency response is from 100-4,000 Hz with sensitivity biased to eliminate extraneous and background noise interference. A most ideal model for speech use. 50 k ohms impedance. Supplied in a satin-lined leather tooled case.

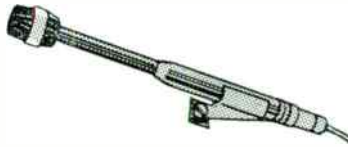
£6.19.6

**MDF902 GENERAL PURPOSE
MICROPHONE IN
PRESENTATION CASE**

Whilst similar in styling to model MDF802, this general purpose microphone has a full frequency response from 70-11,000 Hz with extremely good sensitivity, and with its smart stick appearance is ideal for group and music work. ON/OFF switch incorporated. Also features ball-type diaphragm housing. Supplied in luxurious leather case providing continual protection in transit. 50 k ohms.

£6.19.6

**B1053 DUAL IMPEDANCE
UNI-DIRECTIONAL MICROPHONE**



Similar in finish to model B1051, this shapely 9½" models tapers to ¼" diameter before terminating in a "crow's nest" diaphragm housing. Features include an ON/OFF switch, provision of two pre-wired connector leads (black for 50 k ohms and grey for 600 ohms) and felt-padded adjustable "U" bracket for easy fitment on to stands. Uni-directional pick-up characteristics.

£5.19.6

**AIWA DM51 PROFESSIONAL
MICROPHONE WITH BASE**



A superbly presented dynamic microphone with outstanding extended frequency response from 50-15,000 Hz. Impressively styled in matt black with chrome relief. ON/OFF switch. Cast diaphragm protective ribs. Chrome "U" stem with soft plastic lining and matching base. Screw-in connector. Omni-directional characteristics with sensitivity of -58 dB. Microphone is 8" long.

£6.19.6

**DF50B COMMUNICATIONS
MICROPHONE**



Of particular interest for communications application (radio hams, cab call, air to ground, etc.), this rugged moulded model is hand shaped and fitted with a spring-pressed ON/OFF switch. Provided with this model is a screw-on bracket for accepting the built-in boss on the rear of the microphone which also has over 4' of self-coiling cable. Frequency Response: 200-8,000 Hz 50 k ohms.

£3.3.0

**B1006 (DM304) DUAL IMPEDANCE
DYNAMIC MICROPHONE**



A chrome-plated die-cast body houses this excellent microphone with its useful dual impedance (50 k ohms and 600 ohms) specification. The heavy duty variable angled bracket incorporates an ON/OFF switch and fits directly on to floor stands. All-round diaphragm with ribbed protection. Frequency Response: 100-10,000 Hz. Supplied with screw-on lead and data for quick impedance change.

£4.10.0

**DFI2 SUPER PENCIL DYNAMIC
MICROPHONE**



This is an exceptionally elegant dynamic microphone finished in matt black with silver relief. The heavy 6¼" pencil-shaped microphone has the commendable frequency response of 80-12,000 Hz within 8 dB and is omni-directional in pick-up characteristics. The matching moulded base provided also has the adaptable "U" bracket for fitting on to stands. With lavalier cord; 50 k ohms impedance.

£4.10.0

**DF72 DUAL IMPEDANCE
MICROPHONE
WITH WINDSHIELD**



A well styled plastic stick microphone incorporating ON/OFF switch, precision engineered for smooth acceptance of heavy duty windshield provided. Dual impedance of 500 k ohms and 600 ohms. Frequency Response: 80-12,000 Hz with non-directional characteristics. Overall Dimension: 7½" with 2½" round windshield when in place. Black and silver finish. With lead, stand fixing bracket and wire meshed screen.

£5.12.6

DF71 DYNAMIC MICROPHONE WITH WINDSHIELD



Possibly this is the most elegant of the Foster microphones now being offered. The shiny black and silver barrel is 6½" long yet feels light and balanced. Its frequency response is from 100–10,000 Hz within 7 dB with sensitivity at –59 dB. A neatly matching and superbly fitting windshield is provided as are a "U" bracket for stand fitting and lavalier cord. 50 k ohms.

£4.19.6

UDI19 MICROPHONE



A cardioid dynamic microphone, with ON/OFF switch, housed in metal casing supplied with 20' cable, screen jack plug and microphone stand holder.

Type: Dynamic moving coil
 Frequency Response: 50–15,000 Hz
 Output Level: High: 54 dB (at 1,000 Hz)
 Low: 72 dB (odB = 1V/microbar)
 Impedance: Dual 50 k and 200 ohms
 Polapattern: Undirectional
 Stand Thread: Standard ⅜"—27 Threads

£5.5.0

BI017 DYNAMIC MICROPHONE WITH STAND



This microphone is particularly fine value for money, offering dynamic performance with good non-directional characteristics. The black and silver 4½" stick microphone simply slides into a receiving funnel in the matching black base provided. 3' lead already fitted with plug. 50 k ohms.

27/6

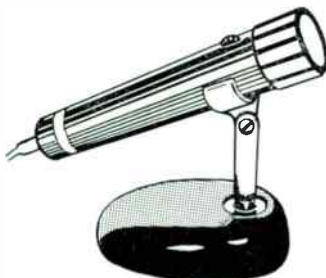
BI019 DYNAMIC MICROPHONE WITH SWITCH



This high-impedance microphone is attractively presented in black with silver metal front and has a built-in strut making it suitable for desk or hand use. The BI019 incorporates an ON/OFF switch at the side and has a really excellent performance with an extremely sensitive pick-up.

29/6

CM70S CRYSTAL MICROPHONE WITH BASE



This 5" stick microphone is well finished in satin aluminium with a black and silver protective surround to the diaphragm. An ON/OFF switch is fitted, and the angle-adjustable "U" bracket can be screwed direct on to floor stands although a matching table base is provided in the composite pack, which also includes a hanging lavalier cord.

39/6

BI051 SUPER-SLIM DYNAMIC MICROPHONE



A general purpose dynamic microphone with a new conception in super-slim styling. The 7" metal barrel has a bright finish relieved by the black ribbed diaphragm housing and slides snugly into the adjustable felt-lined bracket provided. Direct fitting on to stands. 50 k ohms impedance.

£2.12.6

BI201 (B3) CRYSTAL MICROPHONE WITH BASE



This most refined of the original BM3 style models, the BI201 is both robust and smart in its jet black and chrome slim presentation. 7" long stick microphone with ON/OFF switch and screw-on connector; variable angle "U" bracket which also fits floor stands, and matching black base.

45/-

INSTANT RELEASE MICROPHONE ADAPTOR



The neatest of accessories enabling microphones to be snatch-removed from floor stands, etc. Spring-loaded ball-bearing fitting. Well-made chrome-finished metal adaptor, with screw fitting both ends.

7/6

"U" BRACKET AND STEM



A most useful microphone accessory enabling stick and pencil type microphones to be fitted onto stands. The strongly moulded "U" shaped cradle accepts most types, and screws onto the tops of a wide variety of floor stands. Adjustable swivel bracket.

7/6

SHURE Microphones

UNIDIRECTIONAL DYNAMIC



MODELS 565: 565S Unisphere I microphones have a strong, built-in wire mesh spherical front containing a filter designed to give excellent protection from wind and "pop" (explosive breath sounds). Model 565 is suitable for hand and stand use and is furnished with a swivel adapter. Model 565S includes an on-off switch. Both are dual-impedance microphones.

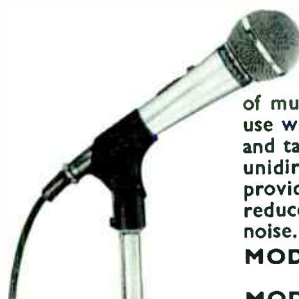
MODEL 565 £32.0s.0d.

MODEL 565S £33.10s.0d.

MODELS 555: 555SW Equipped with a multi-impedance switch, furnishing a choice of three impedances: L—35–50 ohms, M—150–250 ohms, H—35,000 ohms. Ultra-Cardioid. Response at rear down 15dB from front.

MODEL 555 £27.12s.6d.

MODEL 555SW (with switch) £28.0s.0d.



MODELS 588SA: 588SB Unisphere B microphones feature a natural life-like reproduction of music and voice and are ideal for use with good quality sound systems and tape recorders. They have a true unidirectional characteristic and are provided with a very effective filter to reduce pick-up of wind and "pop" noise.

MODEL 588SA (High impedance) £21.10s.0d.

MODEL 588SB (Low impedance) £20.0s.0d.

MODELS 515SA: 515SB The Uni-dyne B Series offers the advantages of cardioid performance at a price previously associated only with omnidirectional microphones. Sturdy die-cast case, smooth shaped response, shockproof mounted dynamic cartridge, ON/OFF switch with locking plate.

MODEL 515SA (High impedance) £14.15s.0d.

MODEL 515SB (Low impedance) £13.10s.0d.



MODELS 545: 545S Approach the theoretical idea of the cardioid pick-up pattern giving completely uniform pick-up about the axis at all frequencies, in all planes. Dual impedance; choice of 50–250 ohms or high.

MODEL 545 £28.0s.0d.

MODEL 545S £29.10s.0d.

BI-DIRECTIONAL RIBBON

MODEL 315S is a rugged, high-fidelity multi-impedance microphone recommended for fine quality, general purpose use. The 315S will reproduce voice and music in a clear natural tone quality.

MODEL 315S (with switch) £29.10s.0d.



OMNI-DIRECTIONAL DYNAMIC



MODELS 533SA: 533SF These microphones provide wide range reproduction of music and voice and are highly suited to low-cost public address, theatre-stage sound systems and tape recording applications.

MODEL 533SA (High Impedance) £16.0s.0d.

MODEL 533SF (Low impedance) £9.9s.0d.

MODELS 574SA: 574SB Smooth response from 40–15,000 Hz makes this unit a "best buy" for general public address, home recording and call-system use where both performance and economy are important.

MODEL 574SA (High impedance) £10.15s.0d.

MODEL 574SB (Low impedance) £9.9s.0d.



MODELS 560/560F Model 560 dynamic microphones have a response specifically tailored to suit "lavalier" operation and provide a performance equivalent to that of stand microphones.

MODEL 560 (Dual impedance) £14.15s.0d.

MODEL 560F (Low impedance) £12.0s.0d.

MODEL 561F Compact, high quality dynamic microphone with attached cable and intended for direct mounting on flexible gooseneck or fixed tube. Excellent speech reproduction for language laboratory systems, paging installations and control-room talk-back applications.

£10.15s.0d.





DESK STAND

MODEL B1402

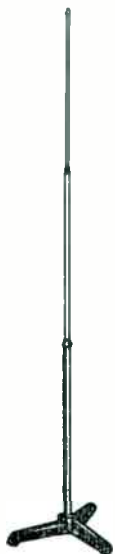
Professional quality 2-section telescopic table stand. Adjustable from 7" to 12½". With heavy base of 5" dia. **32/6**



DESK STAND

EAGLE MODEL DS.1

Economy single section. Grey plastic base of 5" diameter and chrome rod 3½" high. **15/-**



FLOOR STAND

B.1403B

An ever-popular model with heavy cast base. Three-section chrome-plated strong stem extending to 56". Supplied with adaptor couplings. **69/6 Carr. 7/6**

MICROPHONE ADAPTOR KIT

The three microphone adaptors provided in this kit enable most imported and British-made microphones, stands and accessories to be matched for fitting. Supplied in a presentation box. **9/-**

B.1410 FLOOR STAND

A 63" high adjustable 3-section stem with triple adaptors. Quick-locking 11½" spread folding legs, with non-slip rubber ferrules. Very well made, strong yet easily portable. Chrome-black crackle finish. **£4.7.6 Carr. 7/6**

B.1415 MATCHING MICROPHONE BOOM

Intended mainly for use with stand B.1410 this matching Boom is 33" long and weighs 2 lb. Finish is in chrome with black cast brackets adjustable for stem fitting, angle of boom arm and counter balancing, supplied with adaptors on boom end and "U" bracket to receive wide range of microphones. **£2.17.6**



FLOOR STAND

MODEL FS.2

Two-section telescopic, finished in heavy aluminium with collapsible base. Smooth adjustment from 35" to 60". **£3 17 6**



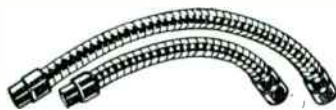
FLOOR STAND

EAGLE MODEL FS.3

'Velvet Action' 3 section telescopic. Heavy base assures maximum stability. Adjustable from 20" to 54". **59/6**



FLEXIBLE GOOSENECK STEMS

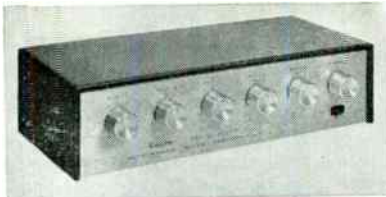


High quality flexible metal stem 8" long with male and female thread terminations. Fully hollow tube making these ideal for use as microphone extensions. **12/6**
13" version of the above. **15/-**

ADAPTORS FOR MICROPHONE STANDS

Chrome steel threaded adaptors as used on table and floor microphone stands. ¼" inside thread. ⅜" outside. **3/6**

**ORDER BY POST
OR CALL AT
ANY OF OUR
LARGE
WALK-ROUND
SHOPS**



TRANSISTOR MIXER AND PREAMPLIFIER

EAGLE MODEL MP.7

The MP.7 has five microphone inputs, each with individual gain controls enabling complete mixing facilities. The high output voltage of 250 mV enables the unit to be used with any auxiliary equipment. Internal battery operation. Housed in a shielded metal cabinet, $9\frac{1}{4}'' \times 5'' \times 3''$.

Specifications

Inputs: Mic. 1, 2 and 3, 3 mV at 50K ohms. Mic. 4 and 5, 3 mV at 600 ohms. Phono Magnetic: 4 mV at 50K ohms RIAA. Phono Ceramic: 100 mV at 1 meg ohm. Output: 250 mV at 100K ohms. Frequency Response: Mic. Inputs, 50–12,000 cps. ± 3 db.; Phono Inputs, 40–16,000 cps. ± 3 db. Signal to Noise Ratio: Better than 55 db. **£11.7.6**



EAGLE MICROPHONE MATCHING UNITS MX.5 & 6

These switched transformer units (MX5—low impedance; MX6—medium impedance) give the following facilities: feed balanced low and medium impedance mikes into an unbalanced high-impedance input; similarly feed unbalanced mike; extend high-impedance mike lead; feed high-impedance mike to low impedance balanced or unbalanced input.

Dimensions: 70 x 65 x 30 mm.

MX5 Impedance Matching: 20–50 ohms **42/6**

MX6 Impedance Matching: 200–600 ohms **42/6**

"IMP-VERTA" IMPEDANCE CONVERTOR

Designed for many applications, the brilliant new "Imp-Verta" is ideal for enabling long-lead, low-impedance microphones (such as DFI 600 ohms) to be used directly into input sockets of amplifiers and tape recorders. This solid-state compact unit is powered by PP3 type battery with minimal drain and has standard jack sockets. Can also be used for pick-ups. Robust, crackle-finish case $5\frac{3}{4}'' \times 1\frac{1}{2}'' \times 1\frac{1}{2}''$. **£2.19.6**



EAGLE REVERBERATION AMPLIFIER

MODEL RA.856

Completely self-contained transistorized battery-operated Reverberation Amplifier. Reverberation is an entirely different approach to sound reproduction. Normally sound reproduction from a single source has a flat one-dimensional effect; with 'EAGLE'S' RA.856 proper sound delay through 'reverberation' tones are created with a truly third dimension for concert hall originality. Two controls are provided to adjust the amount of reverberation and volume. No complicated wiring; simply plug microphone, guitar, etc., into the RA.856 and the output into your amplifier. Supplied in a beautiful walnut cabinet.

Size: $7\frac{1}{4}''$ high x $3''$ wide x $4\frac{1}{4}''$ deep.

£8.19.6



4-CHANNEL MICROPHONE MIXER EAGLE MODEL MM.4



Offers a whole new world of experience to the sound enthusiast. Mixes sounds from four separate channels (microphones, or a mixture of mikes, phono tuner, etc.) into a single output. Add music and sound effects to recordings. Fully transistorized and self-contained. Gives professional flexibility at very modest cost.

Inputs: 4 x 50 k ohm microphone or Phono

Gain: 3 dB

Dimensions: 150 x 55 x 90 mm.

49/6

B2002 STEREO/MONO MICROPHONE MIXER

This unit, similar in size and appearance to MM4 above, has been designed to accept up to four sound input sources for mixing—either monaural or stereophonic. The four level controls on the front are continuously variable, and there is the addition of a MONO/STEREO selector switch. Operation is from an internal 9 V battery which provides approx. 400 hours' use.

Input Impedance: 100 k ohms (Crystal, etc.)

Max. Input Signal: 1.5 V

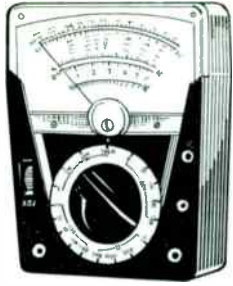
Max. Output Signal: 2.5 V

Hum Level: Negligible

Gain: Approx. 6 dB

Dimensions: $6'' \times 2\frac{3}{4}'' \times 2\frac{1}{4}''$

£3.9.6



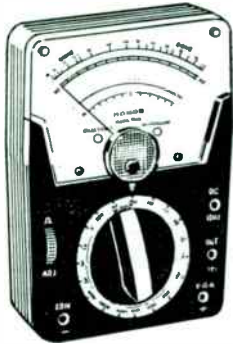
MULTIMETER TE-70

High sensitivity, high quality multi-meter. Employs all the highest grade components throughout, low loss switch and clear plastic easy-to-read scale.

Ranges:
 D.C. voltages: 0-3-15-60-300-600-1200 (30,000 ohms/v)
 A.C. voltages: 0-6-30-120-600-1200 (15,000 ohms/v)
 D.C. current: 0-0.3-3-30-300 mA
 Resistance: 0-16k-160k-1.6m-16 megohm (10 Ω-100 Ω-10k-100k centre scale)
 Decibels: -20 to +63 db

Supplied brand new and guaranteed complete with leads, batteries and instructions **£5.10.0**

HONOR HIGH QUALITY MULTITESTER MODEL TE-90



Fast, Accurate, Reliable . . .

Easy to Read . . .

Model TE-90 is a compact, dependable volt ohm multi-tester with mirrored scale to ensure precise readings.

It has every needed range.

Ideal for repair and service work on radios, TVs, and other electronic appliances.

Meter protection circuit provided.

Ranges:
 D.C. voltages: 0-3-12-60-300-600-1200 (50,000 ohms/V)
 A.C. voltages: 0-6-30-120-300-1200 (15,000 ohms/V)
 D.C. current: 0-0.03-6-60-600 mA
 Resistance: 0-16 k-160 k-1.6 M-16 M (10 ohm-100 ohm-10 k-100 k at centre scale)
 Decibels: -20 to +63 db
 Size: 90 wide x 130 high x 32 deep mm
 Weight: 400 g
 Battery: UM-3 (1.5V x 2) 3V

£7.10.0

MULTIMETER TE-12



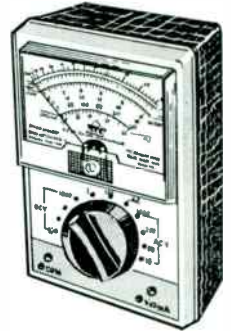
The Model TE-12 Multitester is a de-luxe accurate and high sensitivity instrument having many features which are desirable and required in testing modern electronic equipment. The Model CT-330 is very compact and of sturdy construction. Only the finest parts are used—1% resistors, low resistance selector switch, clear scales and rugged meter movement. The d.c. voltage range covers a very wide span, sufficient for practically all service and maintenance requirements of the electronic technician. The low voltage ranges will be found to be very useful in checking portable radios, both tube and transistor types. It is possible to check high resistances, up to 60 megohms, which are used in many radio apparatus. By using an external a.c. source, condensers from 50μF to 0.2μF may be measured. The batteries used for resistance measurement are standard types and easily obtainable.

Ranges:
 D.C. voltages: 0-0.6-6-30-120-600-1200-3000-6000 volts (20,000 ohms/v)
 A.C. voltages: 0-6-30-120-600-1200 volts (10,000 ohms/v)
 D.C. current: 0-0.06-6-60-600 mA
 Resistance: 0-6k-600k-6meg-60meg (30-3k-30k-300k at centre scale)
 Capacity: 0-0.0005-0-0.1μF, 0-0.01-0.2μF
 Decibels: -20 to +63db

Supplied brand new and guaranteed complete with leads, batteries and instructions **£5.19.6**

C.1000

MULTI-METER



A general purpose pocket size multi-meter. Sensitivity 1,000 ohms per volt.

Ranges:
 A.C. voltages: 10V, 50V, 250V, 1000V
 D.C. voltages: 10V, 50V, 250V, 1000V
 D.C. current: 1 mA, 100 mA
 Resistance: 0-150 K ohms
 Dimensions: 2 1/4" x 3 3/8" x 1 1/8"

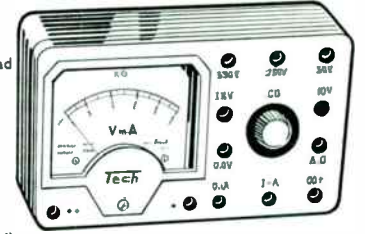
Supplied complete with batteries, test prods and instructions.

£1.19.6

POCKET TESTER PT-34

Dependable and easy to read 1000 ohms per volt

Specifications:
 D.C. voltages: 0-10-50-250-500-1000 volts
 A.C. voltages: 0-10-50-250-500-1000 volts
 Current: 0-1-100-500 mA
 Resistance: 0-100 kohms
 Battery: UM-3 1.5 volts (RCA-VSC-34)
 Measurement: 3 1/2" x 2 1/8" x 1 1/8"
 Weight: 0.55 lbs.



£1.19.6

20,000 OHMS PER VOLT MULTITESTER TE-80

High quality a.c./d.c. multi-meter giving maximum ranges for minimum cost. Employs robust movement, low loss switch and high quality components throughout.

Ranges:
 D.C. voltage: 0-5-25-50-250-500-100 volts (20,000 Ω/v)
 A.C. voltage: 0-10-50-100-500-1000 volts (10,000 μ/A)
 D.C. current: 50 μA-5-50-500mA
 Resistance: 0-6k-60k-600k-6M (30-300-3k-30k midscale)
 Decibels: ...20 to ...62 db

Supplied brand new and guaranteed complete with leads, batteries and instructions. **£5.2.6**

METER TEST LEAD ADAPTOR KIT



A very useful adaptor kit presented in a pocket-sized wallet with clip fastening. The basic prods provided are similar to the standard black and red meter test prods and can accept for adaption spade, short probe and insulated crocodile clip terminations which are packed in different compartments of the wallet, and which are simply pushed on to the banana plug. **9/6**

MODEL TE-200 20,000 OHMS/VOLT D.C. MULTITESTER

Complete factory wired and tested instrument. Can be conveniently carried in your pocket. Uses precision 1% tolerance resistors and high-grade components for high accuracy. Has mirrored scale for eliminating parallax in reading and single knob selector for easy and rapid range selection. Overload protection. High-impact plastic case, test leads, battery.



$4\frac{1}{4}'' \times 3\frac{1}{2}'' \times 1\frac{5}{8}''$.

20,000 OPV D.C.

10,000 OPV A.C.

Ranges

D.C. Voltage:
5, 25, 125, 1,000 V
A.C. Voltage:
10, 50, 250, 1,000 V
D.C. Current:
0-50 μ A, 0-250 mA
Resistance:
0-60 k, 0-6 M
Decibels:
-20 to +62 dB

£3.15.0

MODEL TE-300 30,000 OHMS/VOLT D.C. MULTITESTER

Compact and reliable high sensitivity laboratory type instrument designed for use in the production, servicing and maintenance of electronic equipment. Uses 1% tolerance resistors and high-grade components for high accuracy. Has mirrored scale for eliminating parallax in reading. Single knob selector and rugged meter movement. Overload protection. High-impact plastic case, test leads, battery. $5\frac{1}{2}'' \times 3\frac{9}{16}'' \times 1\frac{7}{32}''$.



30,000 O.P.V. D.C.

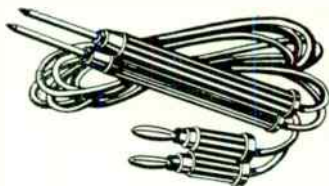
15,000 O.P.V. A.C.

Ranges

D.C. Voltage:
0-0.36, 3, 15, 60, 300, 1,200 V
A.C. Voltage:
0-6, 30, 120, 600, 1,200 V
D.C. Current:
0-30 μ A, 6 mA, 60 mA, 300 mA, 600 mA
Resistance:
0-8 k, 80 k, 800 k, 8 M
decibels:
-20 to +63 dB

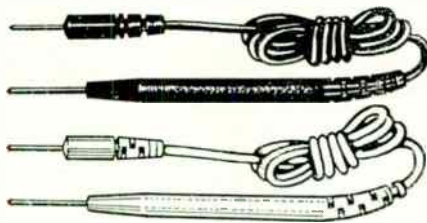
£5.19.6

TEST LEAD AND PROD SETS



TYPE A. With Pin Plugs to fit U.S.A./Japanese Multimeters. 2/6

TYPE B. With Banana Plugs to fit 4 mm Panel Holes. 3/-



EAGLE TL60 DE LUXE TEST LEADS

60" long extra flexible test leads with new unbreakable 'Flexiprobes'. Moulded strain relief eliminates wire breakage. Standard plugs each end to fit all multi-meters. 5/-

WE
PURCHASE
ALL TYPES
OF
TEST
EQUIPMENT

Model TE-10A Multimeter

20,000 O.P.V. Multi-Meter



Optional leather case. 12/6

Compares with meters costing double its price. Features large easy-to-read meter, unusually high sensitivity and wide choice of ranges. With test leads, batteries and manual.

Size: $4\frac{1}{2}'' \times 3\frac{1}{4}'' \times 1''$.

Ranges:

D.C. voltages:
5, 25, 50, 250, 500, 2500
(20,000 O.P.V.)
A.C. voltage:
10, 50, 100, 500, 1000
(10,000 O.P.V.)
D.C. current:
50 μ A, 2.5mA, 250mA.
Resistance: 6k, 6 meg
Decibels: -20 to +22 db
Capacitance:
10 μ F to 0.100 μ F, 0.100
 μ F to 0.1 μ F £3.9.6

TK.25

1,000 O.P.V.
MULTI-METER

Pocket size, sensitive, precision tester. Excellent performance for testing electronic circuits or electrical appliances. 1% precision resistors assure precise readings on all scales. With test leads, batteries and manual.

Ranges

DC Volts: 15, 150, 1,000 (1,000 O.P.V.).
AC Volts: 15, 150, 1,000 (1,000 O.P.V.).
DC Current: 150 mA.
Resistance: 100 k.
Size: $3\frac{1}{2}'' \times 2\frac{3}{8}'' \times 1''$.

45/-





TMK DE-LUXE 100,000 OHMS PER VOLT "LAB-TESTER" VOM

100,000 ohms per volt DC. Giant Easy-to-Read 6½" Scale. 2% Accuracy on DC; 3% on AC. 1/2% Multiplier Resistors. Built-in Meter Protection on All Ranges.

Deluxe laboratory-type volt-ohm milliammeter with performance that satisfies virtually any lab or shop requirement. Unique yellow function selector visually indicates exact range being used—thus eliminating chance of error. Completely self-contained, advanced circuitry features 1/2% precision resistors and 100,000 ohms-per-volt input resistance on DC. Measures voltage in sensitive circuits with precise accuracy. Large, easy-to-read 6½" 2 colour meter has a 90° arc for greater legibility and accuracy plus built-in protection against burnout and bent pointers. Provides full coverage with thirty-three ranges for optimum flexibility. Case has carrying strap. Size: 7½"W x 6½"H x 3¼"D. With batteries and test leads.

SPECIFICATIONS

Sensitivity: 100K ohms/volt DC, 5k ohms/volt AC. Ranges: DC 0.5-2.5-10-50-250-1000 v. AC 0.3-10-50-250-500-1000 v. DB: -10 to +49.4 in 4 ranges. DC Current: 0-10-100µa, 0-10-100-500ma, 0.25-10 amps. Resistance: 0-1K-10K-100k-10m-100 meg-ohms. Meter Movement Sensitivity: 9µa for full scale deflection. Output: to 250 v with built-in series capacitor.

£18. 18. 0.



TMK MULTIMETER 20,000 opv MODEL PL-436

For the amateur and professional

Features mirror scale and wood grain finish front panel. Specification: DC/V ranges: 0-6, 3, 12, 30, 120, 600V at 20K/O.P.V. AC/V ranges: 3, 30, 120, 600V at 8K/O.P.V. D.C. current: 50µA, 0-6, 60, 600 mA. Resistance: 10K, 100K, 1M and 10M ohms end scale (65, 650, 6.5K and 65K ohms centre scale). Decibels: -20 to +57 dB in four ranges. Operates on 2 x 1.5V U7 type batteries. Size 5½" x 4½" x 2½".

Complete with carrying handle, test leads, batteries and full instructions.

£6.19.6



TMK DELUXE 30,000 OHMS PER VOLT MULTITESTER WITH MIRROR SCALE MODEL 500

30,000 Ohms per Volt DC. 15,000 Ohm per Volt AC. 1% Precision Resistors for High Accuracy. Unique "Buzzer" for Fast Short Tests. 27 Meter Ranges on 2-colour Scale. Built-in Overload Protective Circuitry.

Deluxe portable Volt-Ohm-Milliammeter with a mirror scale. Provides wide voltage, current, resistance and dB ranges clearly visible on a big 4" meter with 2 colour calibrations. Built-in overload protective circuitry. Sensitivity is 30 000 ohms-per-volt DC and 15 000 ohms-per-volt AC. All multipliers used are 1% precision resistors for maximum accuracy and years of dependable service. Sensitive 33-micro ampere meter provides full scale readings down to 1/4 volt on DC and .05 milliamps. Features a unique self-contained buzzer to give you fast in-circuit checks on opens, shorts. Audio output jack with DC blocking capacitor. Handsome dust proof black plastic case. Complete with leads, batteries. Size: 3½"W x 6½"H x 2½"D.

SPECIFICATION

Sensitivity: 30 000 ohms/volt DC. 15,000 ohms/volt AC. Ranges: DC volts: 0-25, 1, 2.5, 10, 25, 100, 250, 500, 1000; AC volts: 0-2.5, 10, 25, 100, 250, 500, 1000. Direct Current 0-0.05, 5, 50, 500, ma; 0-12 amps Ohmmeter 0-60K, 6M, 60 Megohms, Decibels: -20 to +56 dB. Short Test: Internal Buzzer. Audio Output Jack Controls: Range Switch, Ohms Adjust.

£8. 17. 6.



SUPER TMK 50,000 OHMS PER VOLT MULTITESTER MODEL 5025

50K Ohms Per Volt DC. 5K Ohms Per Volt AC. Giant 5½" Meter. Built-in Overload Protection. Low Voltage Ranges for Transistor Circuitry.

Super-sensitive, self-contained, portable Multi-Tester! Employs 1% precision resistors and high quality components for an accuracy of better than 2% on DC; 3% on AC. Usable at frequencies up to 100Kc. Meter movement is self-shielded with spring-backed jewels. Also has polarity reversal switch and easy-to-read range indicator. Built-in meter overload protection. Size: 5½" x 2½" x 6½". With batteries and test leads.

£12. 10. 0.



TMK 20,000 OHMS PER VOLT MULTITESTER WITH MIRROR SCALE MODEL MD.120

20,000 Ohms/Volt DC, 10,000 Ohms/Volt AC. 1% Precision Resistors. Easy-to-Read 3" Meter. Built-in Overload Protective Circuitry.

Easy visibility is provided by the large 2-colour 3" meter with mirror scale.

SPECIFICATIONS

Sensitivity: 20 000 ohm/volt DC. 10 000 ohms/volt. AC. Range DC Volts: 30, 60, 300 600, 3,000 V. AC Volts: 0-6 120, 1,200 V. DC. Current 0-60 µA, 0-12, 0-300 ma. Resistance: 0-60K, 0-6 Meg-ohms. Decibels: -20 to +63 dB. Audio Output Jack.

The 40 Microampere D'Arsonval meter movement permits a high input resistance on all ranges. Built-in overload protective circuitry. Supplied with battery and test leads. Rugged, high impact plastic case. Size 3½" x 4½" x 1".

£4. 12. 6

Leather case 10/- extra

SPECIFICATIONS

Range—DC volts: 0-0.25-2.5-10-50-250-1000 at 25K ohm/V; 0.125-1.25-5-0.25-125-500 at 50K ohm/V. AC Volts: 0-3-10-50-250-1000 at 2.5K ohm/V; 0-1.5-5-0.25-125-500 at 5K ohm/V. DC µA: 0-25 at 125mV; 0-50 at 250mV DC mA: 0-5-50-500 at 250 mV 0-2.5-25-250 at 125 mV. DC amperes: 0-10 at 250 mV; 0-5 at 125 mV. Resistance: 0-2K-10K-100K-1M-10 Meg-ohm. Decibels: -20 to +81.5 in 10 AC volt ranges.

NEW TMK TW-20CB MULTIMETER

***FITTED WITH RESETTABLE
OVERLOAD BUTTON**

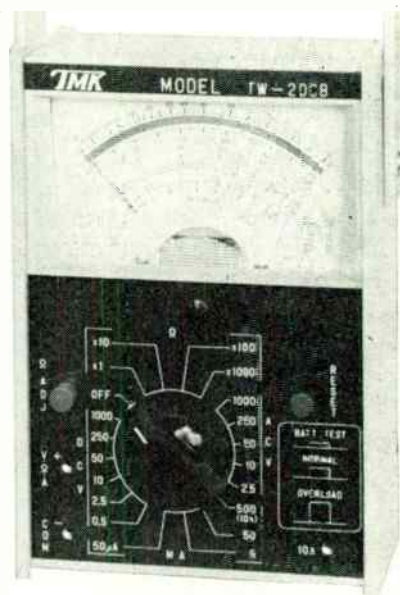
The first inexpensive multimeter to be fitted with this refinement. Normally found only on meters costing well over £25.

The Model TW20S Multimeter incorporates all the desirable features required for testing modern electronic equipment in the laboratories, service shops, and in the field. It is a rugged and sensitive circuit tester with measuring ranges selected to be most practical in use. The voltage sensitivities are 20,000 ohms per volt for d.c. and 5,000 ohms per volt for a.c., respectively, and the circuit loading effects are minimized. There are six d.c. voltages, up to 1 kV full scale, and five a.c. voltages, up to 1,000 V full scale. The lowest d.c. voltage range is 0.5 V full scale, and is useful for transistor circuit testing. The maximum d.c. current range is 10 amps.; the lowest is 50 μ A (0.05 mA) full scale, and currents down to 1 μ A can be read. The resistance range covers from 1 ohm to 5 megohms, in four steps. Carrying handle can be used to place the tester at 20° angle for ease in reading.

SPECIFICATIONS

Ranges: D.C. Voltage: 0-0.5, 2.5, 10, 50, 250, 1,000 V at 20,000 ohms/V
 A.C. Voltage: 0-2.5, 10, 50, 250, 1,000 V at 5,000 ohms/V
 D.C. Current: 0-0.05, 0.5, 5, 50, 500 mA—10 amp.
 Resistance: 0-5 k, 50 k, 0-500 k, 5 M ohms
 (30-300, 3,000 30 k ohms at mid-scale)
Decibels: -20 to +52 dB in five ranges, where 0 dB = 1 mW into 600-ohm line
Size: 115 x 60 x 150 mm (5 $\frac{1}{2}$ " x 4" x 2 $\frac{1}{4}$ " approx.)
Weight: 0.57 kg. (1.25 lb.)
Batteries: Burgess Z (1.5 V) or equivalents, 2 each.
Accessory: 1 pair test leads

£11.10.0



NEW TMK TW-50K MULTIMETER MULTITESTER

The Multitester is a reliable instrument incorporating features which are most desirable when used in the electronics laboratories, servicing establishments and educational institutions.

Means are included whereby the meter movement sensitivity can be halved yet fulfilling the high sensitivity requirements. An overall coverage of 46 measurement ranges is available without sacrificing the high-performance characteristics. The meter movement is protected against burnouts with the use of a non-linear circuit element. The ranges are indicated directly on the front panel for rapid selection when the selector knob is rotated. Carrying handle also can be used to place the tester at 20° angle for ease in reading. The accuracies are $\pm 3\%$ of full scale for the d.c. ranges and $\pm 4\%$ for the a.c. ranges.

SPECIFICATIONS

D.C. Volts: 0-0.25, 2.5, 10, 50, 250, 1,000 V at 25 k ohms/V
 0-0.125, 1.25, 5, 25, 125, 500 V at 50 k ohms/V
A.C. Voltage: 0-3, 10, 50, 250, 1,000 V at 2.5 k ohms/V
 0-1.5, 5, 0-25, 125, 500 V at 5 k ohms/V
D.C. Microampere: 0-25 μ A at 125 mV
 0-50 μ A at 250 mV
D.C. Milliampere: 0-5, 50, 500 mA at 250 mV
 0-2.5, 25, 250 mA at 125 mV
D.C. Ampere: 0-10 A at 250 mV
 0-5 A at 125 mV
Ohm: 10 k, 100 k (65, 650 ohms at centre)
 1 M, 10 M (6.5 k ohms, 65 k ohms at centre)
Decibels: -20 to +81.5 dB in 10 a.c. V ranges
 0 dBm = 1 mW (0-775 V) into 600 ohms
Weight: 580 grams (1.3 lb.)
Dimensions: 115 x 60 x 150 mm (4 $\frac{1}{2}$ " x 2 $\frac{3}{4}$ " x 6")
Batteries: Type Z, UM3 or equivalent penlite, 1.5 V, 2 each
Accessories: Test leads 1 pair

£8.10.0



ULTRA HIGH SENSITIVITY VOM 100,000 OHMS PER VOLT MODEL AS-100D

FEATURES

- High sensitivity: 100,000 ohms per volt DC 9 μ A movement.
- Four resistance ranges to 200 megohms.
- 1% precision multiplier resistors for high accuracy.
- Double Zener diode meter burnout protection.
- 5" full-view meter with easy-to-read 2-colour scale.
- Polarity reversing switch.
- OFF range—protects meter during transportation.
- Long mirror scale to eliminate parallax.
- Etched aluminium panel.
- Housed in a strong moulded case with carrying handle.

SPECIFICATION

DC Voltage: 0 to 3, 12, 60, 120, 300, 600, 1,200V at 100K ohms per volt; accuracy $\pm 3\%$ of specified value

AC Voltage: 0 to 6, 30, 120, 300, 600V at 10K ohms per volt; accuracy $\pm 4\%$ of specified value

DC Current: 0 to 10 μ A, 6mA, 60mA, 300mA, 12A; accuracy $\pm 3\%$ of specified value

Resistance: 0 to 2K, 200K, 2M, 200Megohms; accuracy $\pm 3\%$ of scale length

Decibel Level (Zero dB in 1 milliwatt in 600 ohms): -20 to +17dB

Output: Condenser in series with AC Voltage ranges

Internal Batteries: 1.5V(UM-3) \times 2, 22.5V(BL-MV15) \times 1

Dimensions—(less handle): Height 7 $\frac{3}{8}$ "; Width 5 $\frac{3}{8}$ "; Depth 2 $\frac{3}{8}$ "

Weight: 2 $\frac{1}{2}$ lbs.



Supplied brand new and guaranteed complete with test leads, instructions and batteries.

£12.10.0



LAFAYETTE 20,000 OHMS PER VOLT VOM MODEL 99-5013

With Giant 6" Meter. 20,000 Ohms-per-volt DC. 1% Multiplier Resistors. DC Volts From 0-5000V in 8 Ranges. AC Volts From 0-5000V in 6 Ranges.

A precision VOM for accurate measurement of voltage, current, resistance and decibels. Gives you accuracy comparable to bench type units, with the added feature of complete portability. Expanded 6" meter scale in red and black. 50-microamp meter sensitivity provides 20,000 ohms per-volt input resistance on DC and 5,000 ohms per-volt on AC—Wide-range frequency response measures 10 to 100,000 cycles within ± 0.5 dB. A single 1.5V battery in the ohm-meter circuit prevents burnout to low current drain devices. Heavy gauge steel case with high impact plastic panel. Includes test leads, batteries and leather carrying handle. Size 6 $\frac{1}{2}$ "W \times 7 $\frac{3}{8}$ "H \times 3 $\frac{1}{8}$ "D.

£15. 0. 0.

SPECIFICATIONS

Sensitivity: 20,000 ohm/volt DC, 5000 ohms/volt AC. Range: AC; 0-5000 volts (in 6 ranges): 2.5, 10, 50, 250, 1000, 5000V; DC; 0-5000 volts (in 8 ranges); 0-25, 1, 2.5, 10, 50, 250, 1000, 5000V. DC; Current, 50 μ A, 1/10/100/500 mA. 0-10 amps. Ohmmeter: 0-20 megohms (in 3 ranges): 0-2K, 200K, 20M. Decibels: -20 to +50 dB. Accuracy: DC; $\pm 3\%$. Full Scale. AC; $\pm 4\%$ Full Scale. Resistance: $\pm 3\%$ Full Scale.

148



CI052 MULTIMETER

A modern design 30,000 ohm/volt multimeter with widest possible 3 $\frac{3}{8}$ " mirrored scale in two-colour printing. This is a very accurate instrument housed in a two-tone impact-resistant case. Other features are 1% resistors, recessed nylon selector switch, jewelled meter movement and thermal overload protection, prods, and leads, operating instructions, load protection, prods and leads, operating instructions, battery, etc. Dimensions are 6 $\frac{3}{8}$ " \times 3 $\frac{3}{8}$ " \times 1 $\frac{1}{4}$ ".

Ranges

A.C. Voltage: 6, 30, 120, 300, 1,200 (15,000 ohm/V)
D.C. Voltage: 0-6, 3, 15, 60, 300, 1,200 (30,000 ohm/V)
D.C. Current: 0, 0-03, 3, 30, 300 mA
Resistance: 0, 6 k, 60 k, 600 k, 6 M ohms
Decibels: -20 to +63 dB

£5.19.6

CI051 MULTIMETER

20,000 OPV pocket multimeter with mirror scale and built-in thermal protection circuit. Exceptionally large easy to read meter with D'Arsonval movement. Colour coded scales. Single positive click-in, recessed selection switch for all ranges. Ohms zero adjustment. Range Specification: A.C. Volts: 0-6, 30, 300, 1,200 V at 10 k ohms/V. D.C. Volts: 0-3, 15, 150, 300, 1-2 kV at 20 k ohms/V. Resistance: 0-60 k, 6 M. D.C. Current: 0-60 μ A, 300 mA. Decibels: -20 to +17 dB. Hand calibration gives extremely high standard of accuracy on all ranges. Uses one 1 $\frac{1}{2}$ V penlight battery. Strong impact-resistant plastic cabinet—size only 4 $\frac{1}{4}$ " \times 3 $\frac{3}{8}$ " \times 1 $\frac{1}{8}$ ". Complete with test leads and battery.



75/-

AVOMETER MODEL 9 MK.2

SPECIFICATION:

Current Ranges:
a.c. 10mA to 10A f.s.d. in 4 ranges.
d.c. 50 μ A to 10A f.s.d. in 7 ranges.
Voltage Ranges:
a.c. 3V to 3kV f.s.d. in 7 ranges.
d.c. 3V to 3kV f.s.d. in 8 ranges.
Resistance:
0 to 20M Ω in 3 ranges (first indication 0.5 Ω).
Accuracy:
a.c. voltage $\pm 2.25\%$ of f.s.d. (25 to 2,000Hz).
d.c. voltage $\pm 2\%$ of indication.
a.c. current $\pm 2.25\%$ of f.s.d.
d.c. current $\pm 1\%$ of f.s.d.
Sensitivity:
a.c. voltage 1,000 Ω /V (100V upwards).
d.c. voltage 20,000 Ω /V (all ranges).
Size: 8" x 7 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " (204 x 185 x 115 mm.).
Weight: 6 $\frac{1}{2}$ lb. (2.95 kg.). (Including leads).

£37 4 0 P/P 5/-



AVOMETER MODEL 8 MK.3

SPECIFICATION

Current Ranges:
a.c. 100mA to 10A f.s.d. in 4 ranges.
d.c. 50 μ A to 10A f.s.d. in 7 ranges.
Voltage Ranges:
a.c. 2.5V to 2,500V f.s.d. in 7 ranges.
d.c. 2.5V to 2,500V f.s.d. in 8 ranges.
Resistance:
0 to 20M Ω (first indication 0.5 Ω).
Decibels:
-15dB to +15dB.
Accuracy:
a.c. voltage and current $\pm 2.25\%$ of f.s.d.
d.c. voltage $\pm 2\%$ of indication.
d.c. current $\pm 1\%$ of f.s.d.
Sensitivity:
a.c. voltage ranges 1,000 Ω /V (10V upwards).
d.c. voltage ranges 20,000 Ω /V (all ranges).
Size 8" x 7 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " (204 x 185 x 115 mm.).
Weight: 6 $\frac{1}{2}$ lb. (2.95 kg.). (Including leads.)

£37 4 0 P/P 5/-

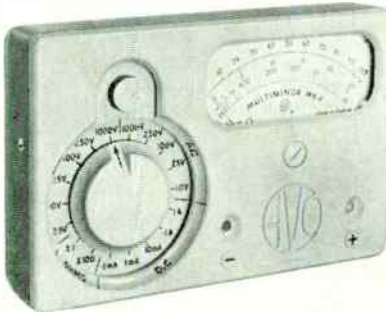


MULTIMINOR MK. 4

SPECIFICATION

Current Ranges:
d.c. 100 μ A to 1A f.s.d. in 5 ranges.
Voltage Ranges:
d.c. 100 μ A to 1A f.s.d. in 5 ranges.
Voltage Ranges:
a.c. 10V to 1,000V f.s.d. in 5 ranges.
d.c. 100mV to 1,000V f.s.d. in 7 ranges.
Resistance:
0 to 2M Ω in 2 ranges (first indication 5 Ω).
Sensitivity:
a.c. voltage ranges 1,000 Ω /V.
d.c. voltage ranges 10,000 Ω /V.
Accuracy:
a.c. voltage ranges 2-75% of f.s.d.
d.c. voltage and current ranges 2-25% of f.s.d.
Size: 7 $\frac{3}{8}$ " x 4" x 1 $\frac{3}{8}$ " (197 x 102 x 41 mm.).
Weight (including case): 1 $\frac{1}{2}$ lb. (0.675 kg.).

£12 12 4 P/P 5/-



AVOMETER EVER-READY TYPE CARRYING CASE

The instrument can be used while still retained in this ever-ready type carrying case.

Size:
10 $\frac{1}{2}$ " (267 mm.) high.
7 $\frac{3}{8}$ " (196 mm.) wide.
5" (127 mm.) deep.

£6 13 3

AVOMETER CARRYING CASE

Affords portability and protection when not in use.

Size:
9 $\frac{1}{2}$ " (247 mm.) high.
8 in. (203 mm.) wide.
5 $\frac{1}{2}$ " (127 mm.) deep.

£5 15 0

LEADS, PRODS AND CLIPS

For Models 7, 8, 9, Hook-ended Set (16103/N)

£1 17 8

For Models 7, 8, 9, Plug-in Set (16103/P) £ 2 2 7
For Multiminor (16103/X)

£1 4 9

Sets of Leads, Prods & Clips cannot be split up and can only be sold COMPLETE as listed above.



RECONDITIONED AVOMETERS

WE ARE USUALLY IN A POSITION TO OFFER RECONDITIONED AVOMETERS AT ATTRACTIVE PRICES. PLEASE CONTACT US FOR CURRENT OFFERS.

EAGLE DYNAMIC TRANSISTOR TESTER TT.144

Tests in-circuit or out of circuit. Identifies PNP and NPN types. An indicator lamp provides positive information on the following tests:

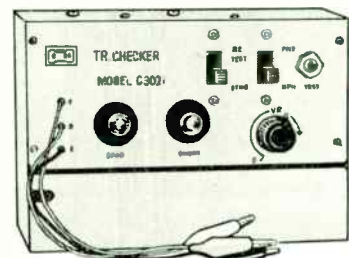
Electrode open circuits, short circuits and current drain.

Provides reliable GO-NO-GO tests at practical collector currents of from 5mA-50mA or more on power transistors. A quick check transistor socket is mounted on front panel.

With accessories and instructions. Dimensions: 3 $\frac{3}{8}$ " x 6 $\frac{1}{4}$ " x 2 $\frac{1}{2}$ " **£4.10.0**



C.3021 TRANSISTOR TESTER



Will test PNP or NPN transistors. Neon lamp indicates good or bad and also shorts. Operates on internal 2 x 1.5V (U7) batteries. **47/6 each**

BPL-INDIA MULTIMETERS

MODEL UM-607

30,000 Ohms Per Volt

Specifications

Built-in overload protective circuitry. D.C. Voltages: 0-0.25-1-2.5-10-25-100-250-500-1,000V at 30,000 ohms per volt. A.C. Voltages: 0-2.5-10-25-100-250-500-1,000V at 15,000 ohms per volt. D.C. Currents: 0.05-5-50-500mA, 0-12 amp. Resistance: 0-60k-6M-60M (350, 35k, 350k at midscale) ohms. Decibels: -20 to 56 db (0 db = 1mW, 600 ohms). Audio Output: Capacitor in series with a.c. volt ranges. Short Test: Internal buzzer. Off position: Movement shorted.

£7.19.6 (£7.97½)



MODEL UM-049

20,000 Ohms Per Volt

Built-in overload protective circuitry.

Ranges

D.C. Voltages: 0-3-30-60-300-600-3,000V (20,000 ohms per volt). A.C. Voltages: 0-6-60-120-600-1,200V (10,000 ohms per volt). D.C. Current: 0-60µA, 0-12-300mA. Resistance: 0-60k-6M ohms (300 ohms and 30k at centre scale). Decibels: -20 db to +63 db. Output Jack: For audio measurements. Off position: Movement shorted.

£4.10.0 (£4.50)



The first of a new range of instruments manufactured by BRITISH PHYSICAL LABORATORIES INDIA LTD. Made to very highest standards associated with this name. Available for the first time in this country at very attractive introductory prices.

TRANSISTOR CHECKER

MODEL FTC-401

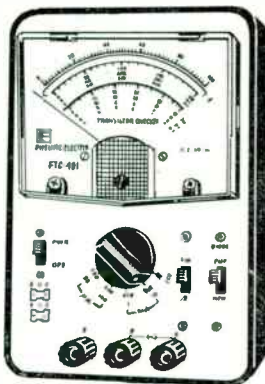
SPECIFICATIONS

Ranges: I_{CO} (I_{CBO}) and Diode Reverse Current: 0-50-100µA, and 0-1-10mA, full scale; Beta, β : 0-100-200-400-800 full scale. Accuracy, I_{CO} and Beta: $\pm 3\%$ of full. Meter Movement: Mirror backed; sensitivity 50µA. Internal Batteries: 4 UM3 (Penlight) cells, 6V total; 1 Mercury (1.3V) cell, Matsushita MT. Size and Weight: 160mm high, 110 mm wide, 55 mm deep; 570 g. Accessories, Furnished: Lead with clip, 3 ea.

For Testing PNP or NPN Transistors and Diodes

No tedious circuit balance adjustments are required in operation. It will measure the I_{CO} and Beta for all types of transistors—from the small to the power—with minimum effort. Self-contained batteries are used and it is possible to make measurements at voltages near the end-of-life condition. The auxiliary mercury battery consumption is so low that it can be used for a period which is practically equal to its shelf life.

£6.19.6 (£6.97½)



VACUUM TUBE A.C. MILLIVOLTMETER

MODEL TE-40

High Sensitivity V.T.V.M.

Suitable to measuring audio circuits, low level a.c. voltage.

Specification

A.C. V: 1 mV-300V RMS (10 Ranges).

Accuracy: 5 cps-1.2 Mc ± 2 db. (db scale $+2 \sim -25$ db).

10 cps.-1 Mc ± 1 db. 20 cps.-250 Kc ± 0.2 db.

db Scale: -40, -30, -20, -10, 0, 10, 20, 30, 40, 50 dbm.

Power Source: 105-125, 220-240 V a.c. 50/60 cps.

Dimensions: 140 x 215 x 170 mm.

Weight: 2.5 kg.

£17.10.0 (£17.50)



VACUUM TUBE VOLT METER

MODEL TE-65

With New 6" Full-view Meter.

Compare it to any Peak-to-Peak V.T.V.M. made by any other manufacturer at any price.

Specification

D.C. V: 0-1.5-5-15-50V

(Using HV Probe, up to 3 KV.)

A.C. V: 0-1.5-5-15-50-150-500-1500V RMS.

0-1.4-4-14-40-

140-400-1400-4000 P-P.

Resistance: R x 10-100-1K-10K-100K-1M-10M (0.2Ω-1000MΩ).

Decibel: -10 db to +65 db.

Power Source: 105-125, 220-240V a.c. 50/60 cps.

Tube Complement: 12AU7, 6AL5.

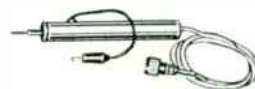
Dimensions: 140 x 215 x 150 mm.

Weight: 2.5 kg. Complete with standard probe.

*For extra higher voltage or frequency, use with Model HV-20 and Model RF-22 Probes. £17.10.0 (£17.50)

Extra Probes for TE-65 V.T.V.M.

MODEL RF-22



Measures higher Frequency at max 20V. Dimensions: 160 mm. Weight: 85 g.

£2/6 (£2.12½)

MODEL HV-20



Measures d.c. Voltage 20 x of original Scale up to 3 KV. Dimensions: 250 mm. Weight: 140 g. 50/- (£2.50)

EAGLE KHP30 HIGH-VOLTAGE TEST PROBE

This is a completely self-contained instrument with integral 30kV voltmeter. Very accurate. Robust in construction. Easy to read. Essential for service men dealing with colour television. Range: 0-30kV. Dimensions: 360 x 50 mm.

150



£9.9.0 (£9.45)

RF SIGNAL GENERATOR MODEL TE-20



- Factory Calibrated and Tested.
- Six Bands: 120 KC-260 MC
- Dual Output RF Terminals
- Separate Variable Audio Output.
- Dial Calibration $\pm 2\%$
- Etched Circular Dial (Vernier Tuned)

£15.0.0 Carr 7/6

SPECIFICATIONS:

★ Full frequency range: 6 Fundamental bands:

A Band 120—320 KC	D Band 3.2—11MC
B Band 320—1000 KC	E Band 11—38MC
C Band 1—3.4 MC	F Band 36—130MC

One harmonic band: 130—260Mc

★ Frequency Accuracy: $\pm 2\%$

★ Audio Output: to 8 volt

★ Tube Complement: 12BH7A, 6AR5,

Selenium rectifier

★ Power Requirements: 105—125V, 220—240V AC.

50/60 c/s, 12 watts.

★ Dimensions: 193 mm H x 265 mm W x 150 mm D

★ Net Weight: 3.2Kg

★ Attractive grey wrinkle steel case with leather carrying handle. Complete with test leads.

AUDIO GENERATOR MODEL TE-22



- Factory Calibrated and Tested
- Low Distortion
- Frequency Range
Sine: 20cps-200Kc in 4 Bands
Square: 20cps-25Kc (Vernier Tuned)
- Etched Circular Dial
- Frequency Response.
 ± 1.5 DB,
60cps-150Kc, 4-1/2" Vernier Dial

SPECIFICATIONS:

★ Frequency Range:

Sine wave: 20-200,000 cps in 4 bands
Square wave: 20-25,000cps.

★ Output Voltage:

Sine: 7 volt. Square: 7 volt P-P

★ Output Impedance: 1,000 ohm

★ Frequency Accuracy: $\pm 5\%$

★ Distortion: Less than 2%

★ Tube Complement: 6BM8, 12AT7, 6x4.

★ Power Requirements: 105-125V, 220-240V AC

50/60cps. 19W

★ Dimensions:

193 mm H x 265 mm W x 150 mm D

★ Net Weight:

3.5Kg.

£17 10 0 Carr 7/6

CAPACITANCE - RESISTANCE ANALYZER MODEL TE-46

- Capacitance Bridge Circuit
- "Magic-Eye" Null Indicator and Meter
- Measures Impedance
- 2 Turns Ratio Scales

- Direct Reading Scales for Capacitance and Resistance
- Checks Opens, Shorts, Leakage and Intermittents
- Determines Power Factor of Electrolytics
- Complete with Test Leads, Blue, Red and Black

SPECIFICATIONS:

★ Capacity: 0-00002-0-005 mfd., 0-002-0-5mfd.

4 Range: 0-2-50mfd., 50-2,000mfd.

★ Accuracy: $\pm 5\%$ +5mmfd. (except the ranges of 30 from both ends and between 50 to 2,000mfd. The said ranges not included in 30 from both ends covers 5 to 300 ohms) $\pm 15\%$ (For the ranges of 30 from both ends and 50 to 200mfd.)

★ Resistance: 2-500 ohms, 200 ohms-50,000 ohms, 20 Kohms-5,000 Kohms. 5-200 Mohms.

★ Accuracy: $\pm 5\%$ (except the ranges of 30 from both ends between 5M to 200 Mohm $\pm 15\%$) (for the ranges of 30 from both ends and between 5M to 200 Mohms.)

★ Transformer Turns Ratio & Impedance Ratio:

1:1 (1:1)-1:100 (1-10K)

1:10 (1:100)-1:200 (1-40K) $\pm 10\%$

£17 10 0

Carr 7/6



★ Leakage: 0-1, 0-10mA $\pm 5\%$

★ Supply Voltage: 3,6, 12,25, 50, 150, 250, 300, 350, 400, 450, 600 $\pm 10\%$

★ Power Factor: 0-75% $\pm 10\%$ (at 60cps)

★ Insulation Resistance: 0-200 Mohms (at 600V $\pm 20\%$)

★ Tube Complements: 6x4, 6E5.

★ Power Requirements: 105-125V, 220-240V AC.

50/60 cps.

★ Dimensions:

193 mm H x 265 mm W x 150 mm D

★ Net Weight:

4Kg.

Complete with instructions and test leads, handsome grey wrinkle steel case with leather carrying handle.

DECADE RESISTANCE ATTENUATOR MODEL TE.III



- 0-111 dB
- 0-1 dB
- Step DC-150 kHz

£27.10.0

Standards

Variable Range: 0-111 dB

Connection System: Unbalance T and Bridge T

Impedance: 600 ohms

Range: (0.1 dB x 10) + (1 dB x 10) + 10 + 20 + 30 + 40 dB

Measured Frequency: DC to 200 kHz (-3 dB)

Accuracy: 0.05 dB + indication dB x 0.01

Maximum Input: Less than 4 watts (around 50 volts)

Additional Device: 600 ohms load resistance with internal-external changeover switch is built in

Dimensions and Weight: 325 wide x 114 high x 100 deep mm; 2 kg



TE-16A TRANSISTORIZED TEST OSCILLATOR

Specifications

Frequency Range: Band 1 400 to 550 kHz
 Band 2 550 to 1600 kHz
 Band 3 1.6 to 4.8 MHz
 Band 4 4.8 to 14.4 MHz
 Band 5 14.4 to 30 MHz

Wave: A1, A2

Modulated Frequency: 800 Hz sine wave

Modulation: 30% (approx)

Frequency accuracy: Better than 3% on all ranges

Output impedance: Low impedance

Output control: Band 1 0 to 2 volts
 Band 2 0 to 2 volts
 Band 3 0 to 0.4 volts
 Band 4 0 to 0.4 volts

Transistor: 2SA342, 2SB175

Power source: 9-volt battery (PP3)

Dimensions and weight: 5 $\frac{1}{8}$ " x 5 $\frac{1}{8}$ " x 3 $\frac{1}{8}$ ";
 2.2 lb.

A most popular transistorised test oscillator. Handy signal generator for radio amateur, Serviceman, etc., requiring no a.c. power source. Light weight and space saving compact type, yet covers full frequency ranges. Designed for easy handling, wide window and equipped with long scale.

£7 19 6

BELCO AF-5A TRANSISTORISED SINE SQUARE WAVE C.R. OSCILLATOR



New portable low-cost solid-state audio generator with excellent range.

Frequency Range:

Sine Wave: 18-200,000 Hz

Square Wave: 18-20,000 Hz

Frequency Accuracy: Less than 1%

Distortion: Less than 1%

Output: Max. +10 dB (10 k ohms)

Operation: Interval batteries (8 x U7 1.5 V)

Attractive two-tone metal case. Size 7 $\frac{1}{8}$ " x 5" x 2"

Supplied complete with all instructions.

£17.10.0

DE-LUXE AUDIO GENERATOR

MODEL TY-75

SPECIFICATIONS:

Frequency range:

Sine Wave —20 to 200,000 cps in 4 bands.

Square Wave —20 to 30,000 cps

Frequency accuracy:

±2% plus 1 cps

Output voltage:

Sine Wave —mA x 6 volts (RMS)

Square Wave —mA x 6 volts (P-P)

Distortion:

Less than 1%

Tube complement:

12AT7 x 1, 12BH7 x 1, Silicon Diode x 1, Thermister x 1

Accessory:

1-Output cable

Power supply:

a.c. 50/60 cps 220-240 volts 8 vA

Dimensions:

210H x 150W x 120D (mm)

Net weight:

2.3 kgs

£16 10 0



RF SIGNAL GENERATOR DE-LUXE

MODEL TE-20D

SPECIFICATION:

Frequency range:

120kc/s- 500mc/s
 (6 Fundamental Bands & 1 Harmonic Band)

Frequency accuracy: ± 2%

Audio output: to 8 volts

Tube complement:

12BH7A, 6AR5, Silicon Diode and Germanium Diode

Printed Circuit for uniform characteristics

Power source:

105/125, 220/240 volts a.c., 50/60 cps

Dimensions:

140 x 215 x 170 mm

Weight:

2.8 kg

£15

★ Factory calibrated and tested

★ Dual output RF terminals

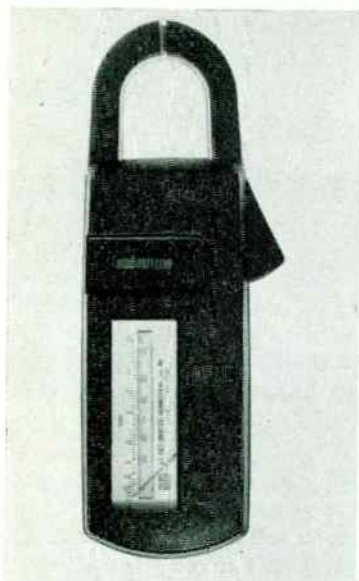
★ Separate variable Audio output

★ It employs a X'tal socket and can be used as below

(a) Self-Calibration

(b) Marker Generator

KEW 8 SNAP ON VOLT AMMETER - OHMMETER



A handy sized Tester that measures alternating current and voltage quickly and accurately without cutting the power. A special feature of this tester is a resistance range for speedily checking out any circuits found defective.

Rotary scale is adopted and only one scale range appears in the window at any time for greater reading speed and accuracy. Complete with Test Leads, Ohm-probe, Carrying Strap and Leather Case.

Specifications:

A.C. Amps: 0-6, 0-15, 0-40, 0-100, 0-300 A.

A.C. Volts: 0-150, 0-300, 0-600 V.

Resistance:

0-2 K ohm, 25 ohm Mid-scale.

Size: $8\frac{7}{16}'' \times 2\frac{1}{2}'' \times 1\frac{1}{2}''$.
£20.10.0

PENCIL MULTIMETER



EAGLE MODEL PT.7

Designed like a fountain pen for speedy measurement of a.c., d.c., volts and resistance. Range selection by slide switch and measurements are read on a circular meter at the top of the instrument. Complete with battery, test lead and carrying case.

Size: $6\frac{5}{16}'' \times \frac{5}{8}''$.

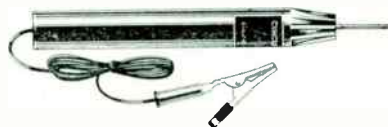
D.C. Volts:
0-15, 150, 300.

A.C. Volts:
0-15, 150, 300.

Resistance:
0-2.5 K ohm.

£32.6

EAGLE CCT.3 CIRCUIT CONTINUITY TESTER



with built in indicator lamp.

181 x 19 mm.

17/6

NOMBREX WIDE RANGE TRANSISTORISED R.F. GENERATOR

Model 29

The instrument with a galaxy of star features

- ★ WIDE FREQUENCY COVERAGE 150 KHz-220 MHz
- ★ ALL FREQUENCY RANGES ARE ON FUNDAMENTALS
- ★ EIGHT BANDSPREAD SCALES, TOTAL LENGTH 40"
- ★ SMOOTH VERNIER TUNING CONTROL—RATIO $7\frac{1}{2}:1$
- ★ RAPID SPIN WHEEL TUNING—OPTIONAL EXTRA
- ★ UNIQUE ELECTRONIC SCALE CALIBRATION CONTROL
- ★ SCALE FREQUENCY ACCURACY WITHIN $\pm 1.5\%$
- ★ MAGNIFIER CURSOR—CLEAR PRECISION TUNING
- ★ INTEGRAL CRYSTAL CALIBRATOR—MODEL 29-X
- ★ MODULATION DEPTH FULLY ADJUSTABLE 0-100%
- ★ VARIABLE MODULATION FREQUENCY 400-1000 Hz
- ★ MODULATION SIGNAL AVAILABLE AT AF JACK
- ★ PROVISION FOR EXTERNAL MODULATION 0-100%
- ★ STABILIZED SUPPLY FOR LONG-TERM ACCURACY
- ★ STANDARD 9-VOLT TRANSISTOR BATTERY OPERATION
- ★ JACK SOCKET PROVIDED FOR EXTERNAL SUPPLY
- ★ SIZE $7\frac{1}{2}'' \times 5\frac{1}{2}'' \times 3\frac{1}{2}''$



STANDARD MODEL 29-S

£20.0.0

This Standard Model which has the full general specification below is the culmination of many years of design, development and manufacturing experience of solid-state signal generators. Of completely new design and circuitry, it incorporates every function and facility possible at a modest price. A versatile all-purpose portable instrument ideal for the service engineer, technical training colleges and for the amateur radio technician.

CRYSTAL CHECK MODEL 29-X

£27.10.0

Incorporates all the features of the Standard Model 29-S.

AND

Integral crystal oscillator module providing harmonic calibration check points on all ranges, employing our unique electronic calibrator panel control, to a check-point accuracy of $\pm 0.02\%$. The marker signal, level adjustable by the attenuator, is available separately at the RF output socket for use with external equipment.

SPIN WHEEL TUNING available as optional extra on both models, to special order. Provides rapid traverse of scale combined with smooth vernier adjustment. **£1 extra**



**MODEL
31**

TRANSISTORISED SIGNAL GENERATOR

- ★ Covers 150 kc/s to 350 mc/s in 8 ranges.
- ★ Accuracy $\pm 2\%$ or better.
- ★ RF modulated or unmodulated, average 50 mV.
- ★ Separate AF output at 400 c/s, 3 volts peak.
- ★ Direct calibration. Consumption 3 mA (average). **£12.10.0**



**MODEL
22**

TRANSISTOR POWER SUPPLY

- ★ Maximum current 500 mA.
- ★ Variable output voltage 0–15v. D.C.
- ★ Automatic overload and short circuit protection.
- ★ Regulation better than 2%.
- ★ Dual scale meter.
- ★ For operation 230/250 volts A.C. 50/60 c/s. **£14.0.0**



**MODEL
33**

TRANSISTORISED INDUCTANCE BRIDGE

- ★ 1 μ H–100 H in four ranges. Direct calibration.
- ★ Q Measurements 0.1 to 1000, at 1592 cps.
- ★ Tan δ measurement 10–0.001.
- ★ Accuracy: Inductance $\pm 5\%$. Q and tan $\delta \pm 10\%$.
- ★ Balance indication by miniature edgewise meter. **£20.0.0**



**MODEL
32**

TRANSISTORISED C. R. BRIDGE

- ★ 1 ohm–100 M ohms and 1 pF–100 μ F, in 6 ranges.
- ★ Accuracy $2\frac{1}{2}\%$ or better, at mid-scale.
- ★ Balance by luminescent indicator tube.
- ★ Separate resistance and capacitance scales.
- ★ Power factor check for electrolytics.
- ★ Leakage check by neon indicator. **£10.10.0**



**MODEL
30**

TRANSISTORISED AUDIO GENERATOR

- ★ 10 c/s–100,000 c/s in four ranges.
- ★ Output, maximum 1 volt peak, sine or square.
- ★ Distortion: Sine less than 1%. Square, Rise time 0.3 μ Sec.
- ★ Accuracy: Frequency 5% voltage within 3%.
- ★ Directly calibrated, frequency and output voltage. **£19.10.0**

All instruments, except Model 22, employ one 9v transistor battery Ever Ready PP4, Drydex DT4, or equivalent.

All models have the following specification:

DIMENSIONS: WIDTH $7\frac{1}{2}$ " (190 mm).
HEIGHT $5\frac{1}{2}$ " (146 mm).
DEPTH (including knobs) $3\frac{3}{8}$ " (95 mm).

WEIGHT: in carton container—
Excluding battery 2lb. 2oz.
Including battery 2lb. 3oz.

FINISH: Robust steel case, louvred at rear for ventilation, Medium grey hammer stoved enamel. Recessed panel anodized blue, black and satin silver finish. Spin-disc styled control knob. Four rubber feet.

ACCESSORIES: Models 30 and 31 are supplied complete with 3 ft. shielded terminated test lead, operating brochure with each instrument.

GUARANTEE

All instruments are guaranteed for a period of 12 months from purchase date against any defect or fault in manufacture.

3" OSCILLOSCOPE

MODEL TO-3



- PORTABLE TYPE-HIGH QUALITY!
- ILLUMINATED SCALE
- COMPACT—SPACE SAVING

SPECIFICATION

Vertical Axis
 Deflection Sensitivity: 0.1 Vp-p/cm (at 1 kHz)
 Freq. Characteristics: 1.5 cps-1.5 MHz
 Input Impedance: 2 megohms 25 pF
 Calibration Voltage: 1 Vp-p/cm

Horizontal Axis

Deflection Sensitivity: 0.9 Vp-p/cm
 Frequency Characteristics: 1.5 cps-800 kHz
 Input Impedance: 2 M 20 pF
 Sweep Oscillator: 5 Ranges—(1) 10-100 cps; (2) 100-1 kHz; (3) 1-10 kHz; (4) 10-80 kHz; (5) 50-300 kHz

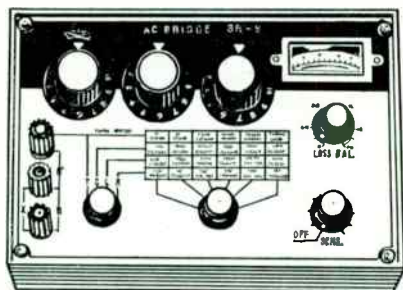
Synchronization Devices: Internal (Positive & Negative)
 External
 Power Source (\pm Line)

Cathode Ray Tube: 3 KP1F
 Power Source: 105-125, 220-240 volts a.c., 50/60 cps

Dimensions: 140 x 215 x 330 mm
 Weight: Approx. 7 kgs. (15.4 lbs.)

£37.10.0 Carr 10/-

BELCO TRANSISTORISED A.C. MEASURING BRIDGE



A new portable bridge offering excellent range and accuracy at low cost. Ranges:

Resistance: 0.1 ohm-11.1 megohm. 6 ranges. Accuracy $\pm 1\%$

Inductance: 1 microhenry-111 henries. 6 ranges. Accuracy $\pm 2\%$

Capacity: 10 picofarad-1110 microfarad. 6 ranges. Accuracy $\pm 2\%$

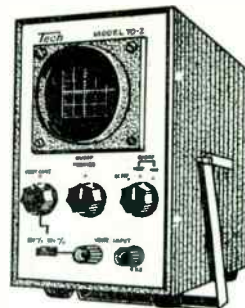
Turns Ratio: 1:1/1000-1:1100. 6 ranges. $\pm 1\%$

Bridge voltage at 1,000 cps. Operated from 9-volt battery. 100 microamp meter indication. Attractive two-tone metal case. Size $7\frac{3}{8} \times 5 \times 2$ ", excluding knobs and terminals.

Price £20

2" OSCILLOSCOPE

MODEL TO-2



- EASY TO USE FOR EVERYBODY!
- COMPACT—SUITABLE FOR TV SERVICING
- ILLUMINATED SCALE

Specification

CRT Tube: 2BP1
 Tube Complement: 6AV6, 12BH7A, 2-silicon diode
 VERT Sensitivity: 10 Vp-p/cm; 50 Vp-p/cm
 VERT Input Impedance: 2 megohm, 25 pF
 VERT Frequency Response: 2 cps 1MHz 2 dB
 Sweep Frequency (2 ranges): 6 cps/2-4, 15.75 kHz/2-4
 Power Source: 105-125, 220-240 volts a.c., 60/60 cps
 Dimensions: 115 x 180 x 230 mm
 Weight: 3.4 kg

£22.10.0 Carr 7/6

BELCO DA-20 SOLID STATE DECADE AUDIO OSCILLATOR



A new high-quality precision portable solid-state instrument, size on 215 (H) x 150 (W) x 120 (D) mm, weight 1.65kg.

Frequency Range: 1-111,000 Hz
 Waveform: Sine, square, plus and minus, plus
 Output: Maximum +10 dBm
 Output Impedance: 10 k ohms
 Distortion: Less than 1%
 Operation: 220/240 V a.c. 50/60 Hz

Supplied complete with test leads and instructions.

£27.10.0 Carr. 7/6

DOUBLE BEAM OSCILLOSCOPE CI-16

The double-beam oscilloscope type CI-16 is a laboratory instrument designed for investigation and measurement of pulsed and periodic waveforms. The use of two independent vertical deflection amplifiers permits the display and analysis of two different waveforms simultaneously.

Specification

Repetition Rates of Investigated Waveforms: 50–10,000,000 Hz. Range of Pulse Length: 0.35 μ s–1 sec. Range of Amplitudes: 0.04–400V. Maximum Amplitude without External Attenuator: 100V. Characteristics of Vertical Amplifiers: Amplifier Passband at 1 db: 0–1 MHz; Amplifier Passband at 3 db: 0–5 MHz; Sensitivity at Medium Frequencies at Broad Passband: 500 mm/V; Size of undistorted Pulse Display: 40 mm; Input Impedance: 0.5 \pm 0.15M ohms, shunted by 45pF; Input Impedance with External Attenuator: 5M ohms, shunted by 13pF; Voltage Attenuation Ratios of the Built-in Attenuator: 1:1, 1:10, 1:100, 1:1,000. Time Base: Preset Calibrated Sweep Durations: Microseconds per cm—0.2, 0.5, 1, 2, 5, 10, 20, 50, 100; Milliseconds per cm—0.2, 0.5, 1, 2, 5, 10, 20, 50, 100; Free-running Time Base Frequency Range: 50–1,000,000 MHz; Sweep Sync. Voltage and Trigger Voltage: 0.5V; Maximum Trigger Pulse Repetition Rate: 10 kHz. Built-in Amplitude Calibrator: Amplitude of Test Pulses with Duration of 0.35 μ s or longer: 0.04–100V; Fundamental Error of the Calibrator: \pm 10%. Frequency of Quartz Crystal Calibrator: 100kHz. Overshoot of Pulse Top for Pulses with Rise Time not below 0.1 μ s: 10%. Instrument Warm-up Time: 30 min. Power Supplies: 220 \pm 22V, 50 Hz. Overall Dimensions: 260 x 550 x 376 mm. Weight: 55 lb.

Standard Equipment

External Attenuator 1:10; 2. Mains Lead; 1. Coaxial Cable with Jack; 2. 75-ohm Coaxial Cable with Jack; 2. Coaxial Jack; 4. Connector for Coupling to Plates; 4. Crocodile Clips; 4. Viewing Hood; 1. Spare Lamps and Fuses. Operating Manual.



PRICE: £87.0.0 (£87.00) Carr. 20/- (£1.00)

PULSE OSCILLOSCOPE TYPE CI-5



The pulse oscilloscope CI-5 is used for display and investigation pulsed and periodic waveforms in electronic circuits. The oscilloscope provides the facilities for measurements of duration, amplitude and phase of signals and for comparison using the Lissajous figures.

Specification

Max. Amplitude of Test Signals: 200V. Characteristics of Vertical Amplifier: Bandwidth: 10 MHz; Sensitivity at 100 kHz, V RMS/mm: Wide Passband, \cdot 3–25; Narrow Passband—1–25; Frequency Response, between 3 db Points: Wide Passband—10–10,000,000 Hz; Narrow Passband—10–500,000 kHz; Input Impedance: \cdot 5M ohms; Capacitance in Shunt with Input Impedance, pF: 50; Tilt of 2,000 μ s pulse: 15%; Total Overshoot of 1 μ s pulse: 5%. Built-in Attenuator: Voltage Attenuation Ratios: 1:1, 1:10, 1:100; Maximum Error: \pm 5%. Characteristics of Horizontal Amplifier: Sensitivity at 100 kHz, V RMS/mm: \cdot 3–25; Frequency Response between 3 db points: 20–500,000 kHz; Input Impedance: 80k ohms. Time Base: Preset Triggered Sweep Lengths: 1, 2, 5, 10, 30, 100, 300, 1,000, 3,000 μ s; Triggered Sweep Error: \pm 20%; Free-running Sweep Frequency Range: 20–200,000 Hz, in nine ranges; Trigger Voltage: \cdot 25V max; Sync. Voltage: \cdot 12V max. Time Calibrator: Preset Repetition Rates of Calibrating Pips: \cdot 05, \cdot 2, 1, 5, 20, 100 μ s; Calibrator Error: \pm 5%. Amplitude Calibrator Voltage Measurement: Error within the Range \cdot 2–1.2V RMS: \pm 10%. Input Impedance of Vertical and Horizontal Deflection Plates of the C.R.T.: 3.6M ohms (in parallel with 30 pF). Power Supplies: 127V and 220V 50 Hz and 115V 400 Hz. Overall Dimensions: 220 x 360 x 430 mm. Weight: 40 lb

Standard Equipment

Supply Lead; Set of Coaxial Cables; Spare Fuse; Graticule; Operating Manual.

PRICE: £39.0.0 (£39.00) Carr. 10/- (50p)

DIGITAL VOLT-KILOOHMMETER TYPE BK2-6

D.C. Voltage Range: 0.01–1,000V. Resistance Range: 100 ohms–1,999k ohms. Automatic Range and Polarity Selection. Provision for Remote Operation.

The instrument is of the electro-mechanical type with sequential energisation of electro-magnetic Relays. It consists of the following units:

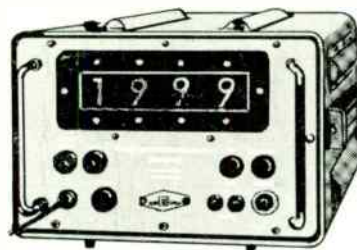
- Measuring Unit.
- Control Unit.
- Zero Balance Unit.
- Source of Reference Voltage.
- Indicator Unit.
- Power Supply Unit.

Specification

Voltage Measurement Range: 0.01–1,000V d.c.; Accuracy: \pm 2% \pm 1 digit; Range Selection: Automatic; Polarity Selection: Automatic; Max. Ripple Contents: 0.1%; Input Resistance, minimum: 1M ohm. Resistance Measurement Range: 100 ohms–1,999k ohms; Range Selection: Automatic; Accuracy: \pm 3% \pm 1 digit; Max. Parallel Capacity: For Range 10 ohms–10k ohms—1 μ F; For Range 10–10k ohms—1 μ F; For Range 100–1,999k ohms—0.1 μ F; Max. Series Inductance: 1 H. Time of Measuring Cycle: 3 sec. Power Supplies: 220V \pm 10% 50 Hz, 220V \pm 5% and 115V \pm 5% 400 Hz. Dimensions: 325 x 220 x 415 mm. Weight: 66 lb.

PRICE, complete with full complement of spares and instruction manual:

£128.0.0 (£128.00) Carr. 10/- (50p)

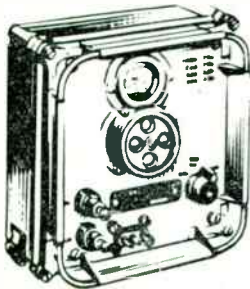


EX-MILITARY TEST EQUIPMENT

A very varied and constantly changing stock of test equipment is available giving the opportunity of purchasing items at a fraction of original cost. Please refer to our current advertisement in the Wireless World or better still, send us a letter stating your requirements.

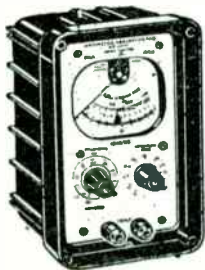
Multimeters - Avometers - Signal Generators - B.F.O.'s - Oscilloscopes - Bridges - Meggers - Valve Voltmeters, etc.

CRYSTAL CALIBRATORS No 10



Small portable crystal-controlled wavemeter. Size: 7" x 7½" x 4". Frequency range 500 kHz. 10 MHz (up to 30 MHz on harmonics). Calibrated dial. Power requirements 300 V d.c. 15 mA and 12 V d.c. 0.3 A. Excellent condition.

£4.9.6 Carr. 7/6



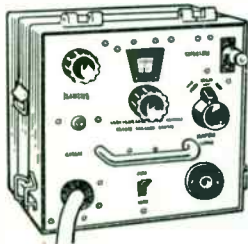
MARCONI CT44/TF956

AF Absorption
Wattmeter

1 μ/watt to 6 watts

£20 Carr. 10/-

CLASS D WAVEMETERS



Hetrodyne crystal controlled frequency meter covering 1.9-8 MHz. 6-volt d.c. operation.

Ideal economy-class frequency meter for amateur use.

Available as follows:

Good used condition, each
£5 19 6

Brand new with headset and instruction manual

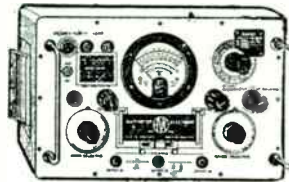
£7 19 6 Carr. 10/-

MARCONI TF-195M BEAT FREQUENCY OSCILLATORS

Another laboratory instrument available at a give away price Range 0-20 kc/s and 20 kc/s-40 kc/s. Output 600 ohms and 2500 ohms. Incorporates output level meter. Operates on 200/250 volt a.c. Supplied in excellent condition.

£20 carr. 30/-.

AVO CT.38 ELECTRONIC MULTIMETERS

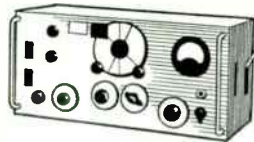


High-quality 97 range instrument which measures a.c. and d.c. voltage. Current, resistance and power output. Ranges d.c. volts 250 mV-10,000 volts (10-110 megohms input). D.c. current 10 μ A 25 amps. Ohms: 0-1,000 meg-

ohms. A.c. volt 100 mV-250 volts (with R.F. measuring head up to 250 MHz). A.c. current 10 μA-25 amps. Power output 50 microwatts-5 watts. Operation 0/110/200/250 volts a.c. Supplied in perfect condition, complete with circuit lead and R.F. probe.

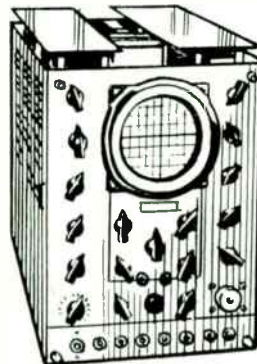
£25 Carr. 15/-

MARCONI TF.144G SIGNAL GENERATORS



Famous laboratory standard instruments. Frequency range 85 kHz to 25 MHz. Incremental frequency control. Calibration accuracy ±1%. Output voltage continuously variable from 1 microvolt to 1 volt.

Internal modulation 400 Hz up to 75%. Output Impedance 10 ohms and 52.5 ohms. Operation 200-250 volts a.c. Reconditioned and offered fully tested and checked. £25 each P/P 30/-

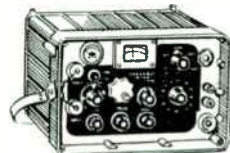


EX-MILITARY OSCILLOSCOPE BARGAIN!

The famous Type 13 double beam Oscilloscopes. Manufactured by Erskine Laboratories and Hartley Electromotives. Offered at a fraction of original cost. Time base 2 cps.-750 kc/s. Separate Y1 and Y2 amplifiers up to 5.5 mc/s. Built-in calibrators at 100 kc/s and 1 mc/s. Operation 115/230 volt a.c. 50/60 cps. Available in excellent condition.

£22.10.0 carr. 30/-

AM/FM SIGNAL GENERATORS



Oscillator Test No. 2. A high-quality precision instrument made for the Ministry by Airmec. Frequency coverage 20-80 MHz AM/CW/FM. Incorporates precision dial, level meter, precision attenuator 1 μV-100Mv. Operation from 12-volt d.c. or 0/110/200/250 volts a.c. Size 12" x 8½" x 9". Supplied in brand new condition complete with all connectors, fully tested.

£45 Carr. 20/-

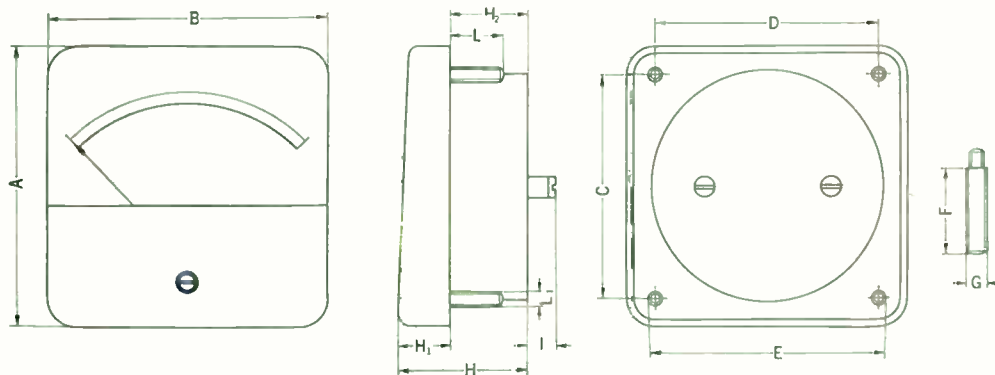


PANEL METERS

An exciting range of low cost panel meters available in five sizes of clear plastic fronts and one size of Moulded Bakelite. Fixing is by four threaded studs. Accuracy $\pm 2.5\%$. Used extensively throughout the electronic industry because of their reliability, low price and quick delivery. Prices quoted are for quantities 1-5. Quantity discounts are as follows: 6-25 less 10%; 26-50 less 15%; 51-75 less 20%; 76-100 less 25%; 200 and over less 33%. Additional ranges can be supplied and also special scales to customers drawings if required in commercial quantities.

CLEAR PLASTIC PANEL INSTRUMENTS

Type	Accuracy	Principle
MR-85P, MR-65P, MR-52P, MR-45P, MR-38P	2.5%	Moving coil type
CR-85P, CR-65P, CR-52P, CR-45P, CR-38P	2.5%	Rectifier type
SR-85P, SR-65PA, SR-52P, SR-45P	2.5%	Moving Iron type

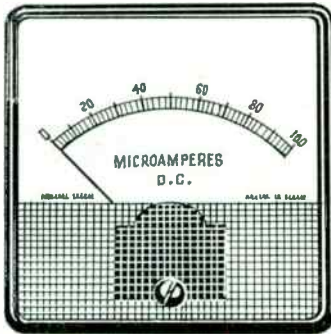


DIMENSIONS

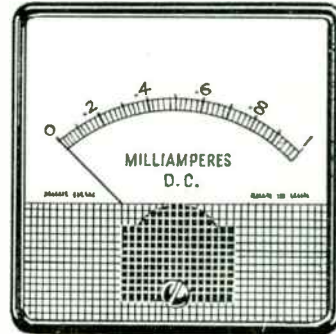
Dimension Type	A	B	C	D	E	H	H ₁	H ₂	L	L ₁	I	F	G
85P	$\frac{m}{m}$ 110 inch(4.331)	120 (4.725)	88 (3.464)	98 (3.859)	85 (3.346)	47 (1.850)	15 (0.591)	33 (1.299)	16 (0.630)	4 (0.157)	11 (0.433)	30 (1.181)	8 (0.314)
65P	$\frac{m}{m}$ 78 inch(3.072)	86 (3.386)	57 (2.243)	57 (2.243)	69 (2.716)	41 (1.613)	14 (0.552)	28 (1.102)	12 (0.472)	3 (0.118)	17 (0.669)		
65PA	$\frac{m}{m}$ 80 inch(3.150)	80 (3.150)	64 (2.520)	64 (2.520)	65 (2.559)	36 (1.418)	15 (0.591)	22 (0.866)	15 (0.591)	4 (0.157)	8 (0.314)	27 (1.063)	6 (0.236)
52P	$\frac{m}{m}$ 60 inch(2.362)	60 (2.362)	48 (1.890)	48 (1.890)	52 (2.047)	40 (1.574)	11 (0.433)	29 (1.141)	12 (0.472)	3 (0.118)	6 (0.236)	27 (1.063)	6 (0.236)
45P	$\frac{m}{m}$ 50 inch(1.968)	50 (1.968)	38 (1.496)	38 (1.496)	45 (1.771)	34 (1.339)	10 (0.394)	24 (0.945)	12 (0.472)	3 (0.118)	6 (0.236)		
38P	$\frac{m}{m}$ 42 inch(1.654)	42 (1.654)	32 (1.260)	32 (1.260)	38 (1.496)	32 (1.260)	9 (0.354)	23 (0.905)	13 (0.512)	2.3 (0.089)	5 (0.197)		



PANEL METERS



MICROAMMETER



MILLIAMMETER

D.C. MICROAMMETERS (MOVING COIL TYPE)

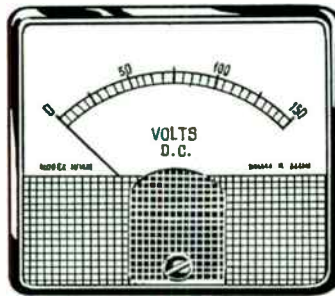
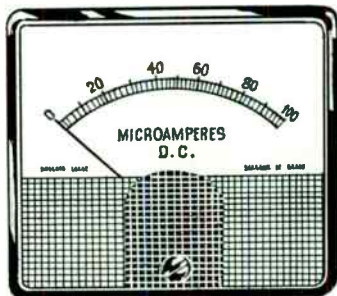
Range/Model	MR-85P	MR-65P	MR-52P	MR-45P	MR-38P
50 μ A	72/-	67/6	62/-	45/-	40/-
100 μ A	62/-	55/-	52/-	42/-	37/6
200 μ A	57/6	52/-	—	37/6	35/-
500 μ A	55/-	47/6	45/-	32/-	30/-
50-0-50 μ A	62/-	55/-	52/-	42/-	37/6
100-0-100 μ A	57/6	52/-	47/6	37/6	35/-
500-0-500 μ A	52/-	42/-	—	30/-	27/6

D.C. MILLIAMMETERS (MOVING COIL TYPE)

Range/Model	MR-85P	MR-65P	MR-52P	MR-45P	MR-38P
1 MA	52/-	42/-	40/-	30/-	27/6
1-0-1 MA	52/-	—	—	—	27/6
2 MA	—	—	—	—	27/6
5 MA	52/-	42/-	40/-	30/-	27/6
10 MA	52/-	42/-	40/-	30/-	27/6
20 MA	—	—	—	—	27/6
50 MA	52/-	42/-	40/-	30/-	27/6
100 MA	52/-	42/-	40/-	30/-	27/6
150 MA	—	—	—	—	27/6
200 MA	—	—	—	—	27/6
300 MA	—	—	—	—	27/6
500 MA	52/-	42/-	40/-	30/-	27/6
750 MA	—	—	—	—	27/6



PANEL METERS

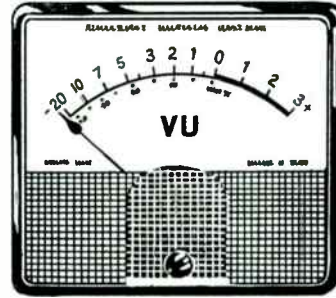
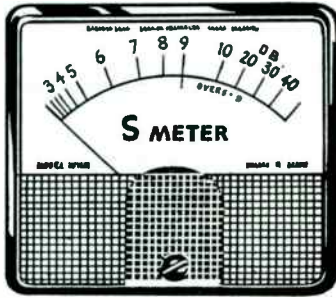


D.C. AMMETERS (Moving Coil Type)

RANGE/MODEL	MR-85P	MR-65P	MR-52P	MR-45P	MR-38P
1 Amp d.c.	52/-	42/-	40/-	30/-	27/6
2 Amp d.c.	—	—	—	—	27/6
5 Amp d.c.	52/-	42/-	40/-	30/-	27/6
10 Amp d.c.	—	42/-	—	—	27/6
15 Amp d.c.	52/-	42/-	—	—	—
20 Amp d.c.	—	42/-	—	—	—
30 Amp d.c.	52/-	42/-	—	—	—
50 Amp d.c.	—	47/6	—	—	—

D.C. VOLTMETERS (Moving Coil Type)

RANGE/MODEL	MR-85P	MR-65P	MR-52P	MR-45P	MR-38P
3 Volt d.c.	—	—	—	—	27/6
5 Volt d.c.	—	42/-	—	—	—
10 Volt d.c.	—	42/-	40/-	30/-	27/6
15 Volt d.c.	—	—	—	—	27/6
20 Volt d.c.	52/-	42/-	40/-	30/-	27/6
50 Volt d.c.	52/-	42/-	40/-	30/-	27/6
100 Volt d.c.	—	—	—	—	27/6
150 Volt d.c.	52/-	42/-	—	—	27/6
300 Volt d.c.	52/-	42/-	40/-	30/-	27/6
500 Volt d.c.	—	—	—	—	27/6
750 Volt d.c.	—	—	—	—	27/6



A.C. VOLTMETERS (Rectifier Type)

RANGE/MODEL	CR-85P	CR-65P	CR-52P	CR-45P	CR-38P
15 Volt a.c.	52/-	42/-	40/-	30/-	27/6
50 Volt a.c.	—	42/-	—	—	27/6
150 Volt a.c.	—	42/-	—	—	27/6
300 Volt a.c.	52/-	42/-	40/-	30/-	27/6
500 Volt a.c.	—	42/-	—	—	27/6

A.C. AMMETERS (Moving Iron Type)

RANGE/MODEL	SR-85P	SP-65PA	SR-52P	SR 45P
50 Ma a.c.	—	42/-	—	—
100 Ma a.c.	—	42/-	—	—
200 Ma a.c.	—	42/-	—	—
500 Ma a.c.	—	42/-	—	—
1 Amp a.c.	52/-	42/-	40/-	30/-
5 Amp a.c.	52/-	42/-	40/-	30/-
10 Amp a.c.	52/-	42/-	40/-	30/-
20 Amp a.c.	52/-	42/-	40/-	30/-
30 Amp a.c.	52/-	42/-	40/-	30/-

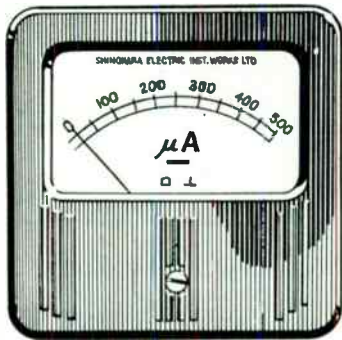
D.C. "S" METERS (Moving Coil 1 Milliamp)

RANGE/MODEL	MR-85P	MR-65P	MR-52P	MR-45P	MR-38P
51~9~+10~+504b	57/6	47/6	42/-	37/6	32/-

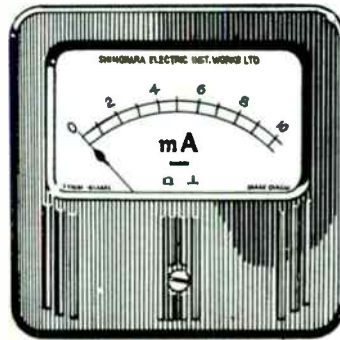
D.C. "VU" METERS (Moving Coil Type)

RANGE/MODEL	VR-85P	VR-65P	VR-52P	VR-45P	VR-38P
-20~0~+3VU	72/-	67/6	62/-	45/-	42/-

SEW PANEL METERS



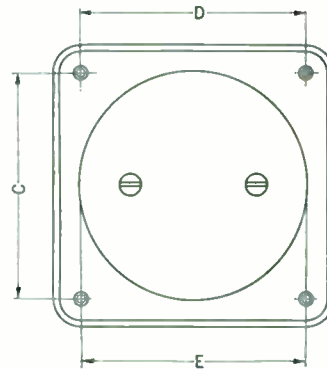
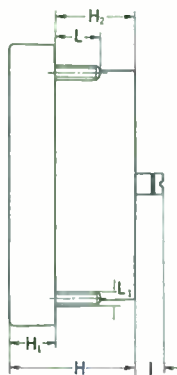
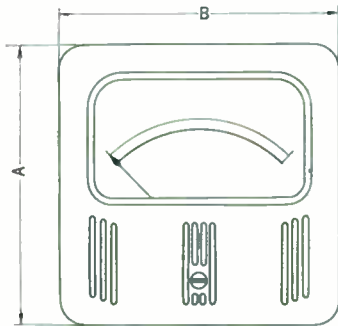
MICROAMMETER



MILLIAMMETER

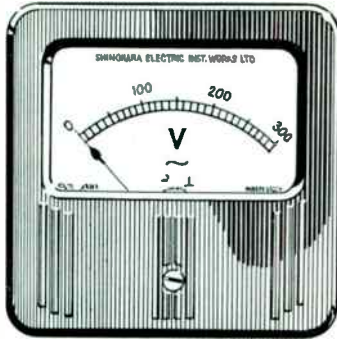
SWITCHBOARD AND PANEL RECTANGULAR

Panel		Principle
Type	Accuracy	
MR-65,	2.5%	Moving coil type
SR-65,	2.5%	Moving Iron type
CR-65,	2.5%	Rectifier type



Dimension	A	B	C	D	E	H	H ₁	H ₂	L	L ₁	I
Type 65	$\frac{3}{16}$ 80 inch (3.150)	80 (3.150)	64 (2.520)	64 (2.520)	65 (2.559)	37 (1.457)	13 (0.512)	24 (0.945)	15 (0.591)	4 (0.157)	8 (0.314)

SEW PANEL METERS



D.C. MICROAMMETERS (MOVING COIL)
TYPE MR-65

25 Microamp	70/-
50 Microamp	47/6
100 Microamp	45/-
500 Microamp	42/-
50-0-50 Microamp	45/-
100-0-100 Microamp	45/-
500-0-500 Microamp	35/-

D.C. MILLIAMMETERS (MOVING COIL)
TYPE MR-65

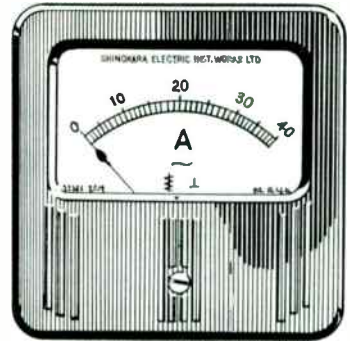
1 Milliamp	35/-
1-0-1 Milliamp	35/-
5 Milliamp	35/-
10 Milliamp	35/-
50 Milliamp	35/-
100 Milliamp	35/-
500 Milliamp	35/-

D.C. VOLTMETERS (MOVING COIL)
TYPE MR-65

5 Volt d.c.	35/-
10 Volt d.c.	35/-
15 Volt d.c.	35/-
20 Volt d.c.	35/-
50 Volt d.c.	35/-
150 Volt d.c.	35/-
300 Volt d.c.	35/-

D.C. "VU" METERS (MOVING COIL)
TYPE VR-65

-20~0~ +3 VU	62/-
--------------	------



D.C. AMMETERS (MOVING COIL)
TYPE MR-65

1 Amp d.c.	35/-
5 Amp d.c.	35/-
15 Amp d.c.	35/-
30 Amp d.c.	35/-
50 Amp d.c.	35/-

D.C. MILLIVOLTMETERS (MOVING COIL)
TYPE MR-65

50 Millivolt	42/-
100 Millivolt	42/-

A.C. AMMETERS (MOVING IRON)
TYPE SR-65

1 Amp a.c.	35/-
5 Amp a.c.	35/-
10 Amp a.c.	35/-
20 Amp a.c.	35/-
30 Amp a.c.	35/-
50 Amp a.c.	35/-

A.C. VOLTMETERS (MOVING IRON)
TYPE SR-65

30 Volt a.c.	35/-
50 Volt a.c.	35/-
150 Volt a.c.	35/-
300 Volt a.c.	35/-
500 Volt a.c.	35/-

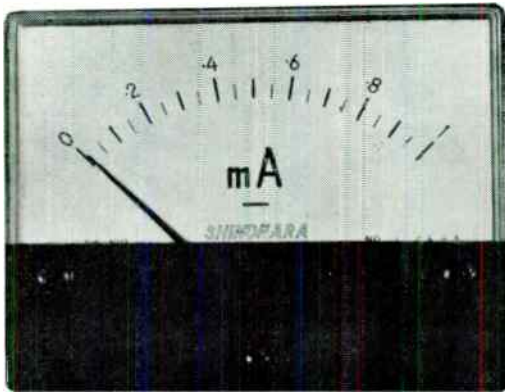
A.C. VOLTMETERS (RECTIFIER TYPE)
TYPE CR-65

300 Volt a.c.	37/6
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SEW CLEAR PLASTIC METERS

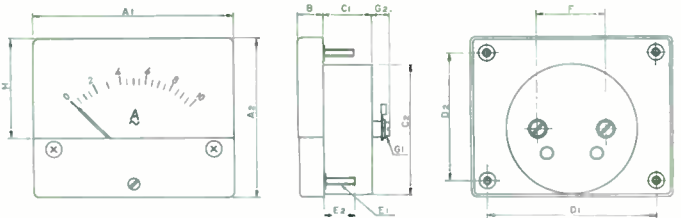
MODEL SW.100

New design with large scale and clear modern case. Bright and easy to read numbers and pointer. Durable and extremely accurate in use. Size: 100 × 88 mm.



RANGES

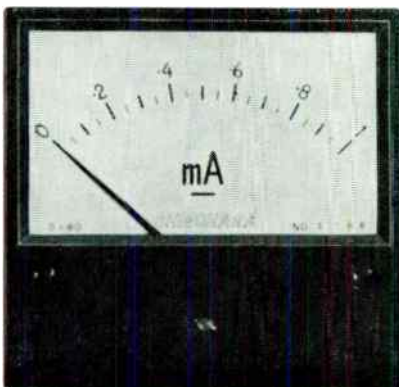
50 μ A	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	69/6
100 μ A	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	67/6
500 μ A	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	62/6
50-0-50 μ A	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	67/6
100-0-100 μ A	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	65/-
1 mA	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	59/6
20 V d.c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	59/6
50 V d.c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	59/6
300 V d.c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	59/6
1 amp d.c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	59/6
5 amp d.c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	59/6
300 V a.c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	59/6
VU Meter	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	75/-



SEW BAKELITE PANEL METERS

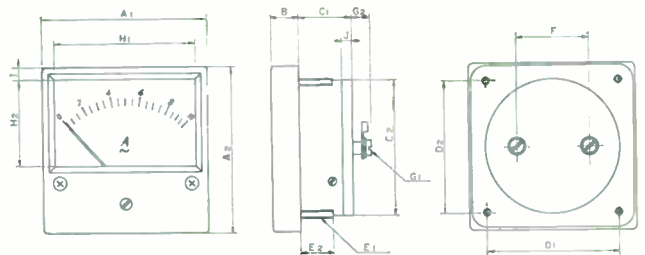
MODEL S.80

New design with enlarged window and bright clear scale. Pure white background ensures that measurements are easy to read. Size: 80 × 80 mm



RANGES

50 μ A	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	62/6
100 μ A	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	59/6
500 μ A	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	52/6
50-0-50 μ A	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	59/6
100-0-100 μ A	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	57/6
1 mA	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	49/6
20 V d.c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	49/6
50 V d.c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	49/6
300 V d.c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	49/6
1 amp d.c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	49/6
5 amp d.c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	49/6
300 V a.c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	52/6
VU Meter	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	67/6



Dimension	A ₁	A ₂	B	C ₁	C ₂	D ₁	D ₂	E ₁	E ₂	F	G ₁	G ₂	H			
Type																
SW-100	$\frac{mm}{inch}$ 100 (3.937)	80 (3.150)	13 (0.512)	24 (0.945)	65 ϕ (2.559)	84 (3.307)	64 (2.520)	4 (0.157)	15 (0.591)	34 (1.339)	2 (0.079)	9 (0.354)	50 (1.969)			
Dimension	A ₁	A ₂	B	C ₁	C ₂	D ₁	D ₂	E ₁	E ₂	F	G ₁	G ₂	H ₁	H ₂	I	J
Type																
S-80	$\frac{mm}{inch}$ 80 (3.150)	80 (3.150)	13 (0.512)	26 (1.024)	65 ϕ (2.559)	64 (2.520)	64 (2.520)	4 (0.157)	16 (0.630)	35 (1.378)	2 (0.079)	9 (0.354)	69 (2.716)	42 (1.654)	5.5 (0.217)	5 (0.194)



EDGWISE PANEL METERS MODEL PE-70



High quality clear plastic moving coil instruments.

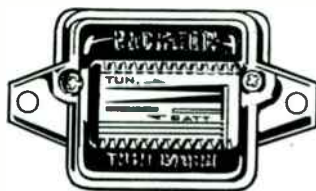
Overall size $3\frac{1}{2}'' \times 1\frac{1}{2}'' \times 2\frac{3}{8}''$ deep.

Available in the following sizes:

50 microamp	60/-
50-0-50 microamp	57/6
100 microamp	57/6
100-0-100 microamp	55/-
200 microamp	55/-
500 microamp	52/-
1 milliamp	47/6
300 volt AC	47/6
VU meter	65/-

**TRADE SUPPLIED
LET US QUOTE
FOR YOUR
REQUIREMENTS**

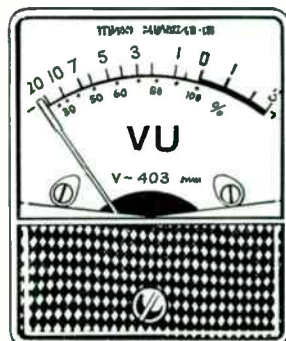
MINIATURE PANEL METERS



MODEL 1

Available as a tuning or battery indicator with a current sensitivity of 400, 200 or 130 microamps.

Size: $\frac{7}{8}'' \times \frac{3}{4}'' \times 1''$. 17/6. each



MODEL 3

VU METER. Odb 1-228 vac. 1,000 cps. 19/6.
Size: 42 mm x 50 mm x 23.1 mm deep.

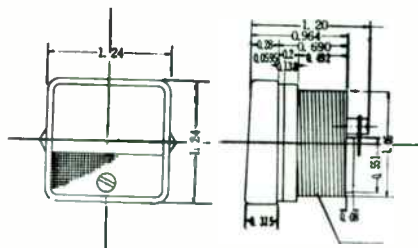
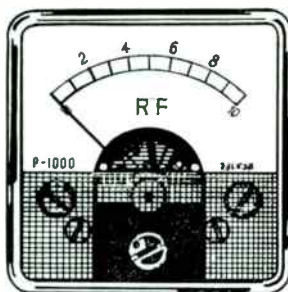


MODEL 2
STEREO BALANCE
METER.

100-0-100 microamps. 19/6.
Size: $2\frac{3}{8}'' \times 1\frac{1}{8}'' \times \frac{7}{8}''$.

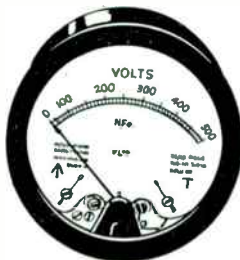
MINIATURE CLEAR PLASTIC PANEL METERS

$1\frac{1}{4}''$ SQUARE FRONTS



Miniature moving coil panel meters. Single nut fixing.

Ranges 1 Milliamp 22/6



500 VOLT A.C. PANEL METER

A high quality $2\frac{1}{2}''$ diameter panel moulding meter. Moving iron 0-500 volts A.C. Brand new boxed. 25/- each

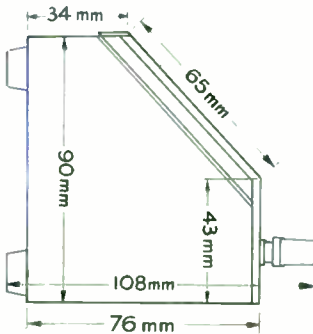
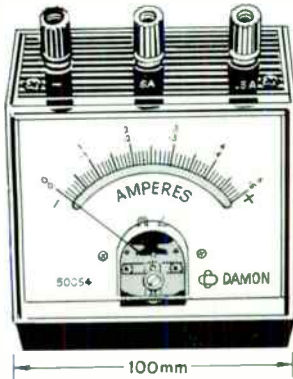
SEW ED-107

EDUCATIONAL METERS

An entirely new range of high-quality moving-coil instruments housed in bench instrument cases ideally suited for school experiments and other bench applications.

3" length scale with mirror to eliminate parallax in reading. Completely clear view front meter covering, eliminating all shadow. The meter movement is easily accessible to demonstrate the internal working.

The instruments are housed in strong black plastic cases fitted with four rubber feet and fully insulated terminals which will accept either a spade terminal or 4 mm plug. Available in the following ranges:—



50 μ A	£4.10.0 (£4.50)
100 μ A	£4. 5.0 (£4.25)
1mA	£3.19.6 (£3.97½)
50-0-50 μ A	£4. 5.0 (£4.25)
1-0-1mA	£3.19.6 (£3.97½)
1A d.c.	£3.19.6 (£3.97½)
5A d.c.	£3.19.6 (£3.97½)
10V d.c.	£3.19.6 (£3.97½)
20V d.c.	£3.19.6 (£3.97½)
50V d.c.	£3.19.6 (£3.97½)
300V d.c.	£3.19.6 (£3.97½)
DUAL RANGE MODELS	
500mA/5A d.c.	£4. 5.0 (£4.25)
5V/50V d.c.	£4. 5.0 (£4.25)
TRIPLE RANGE MODEL	
1mA/10mA/100mA	£4.12.6 (£4.62½)

Other ranges can be supplied to order in commercial quantities.

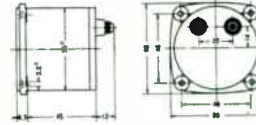
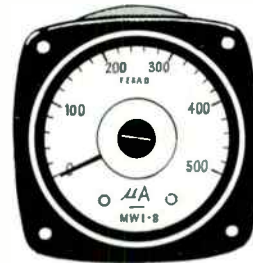
TEW

WIDE ANGLE METERS

SMALL, LIGHT, STURDY
AND HIGHLY ACCURATE

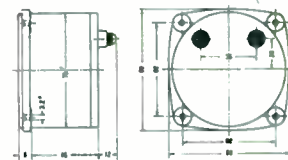
RANGE
1 MILLIAMP

FULL SCALE DEFLECTION



MODEL MWI-8

£4.19.6 (£4.97½)



MODEL MWI-6

£3.19.6 (£3.97½)

VHF/FM RADIO AERIALS · OUTDOOR · BAND II



214/1A

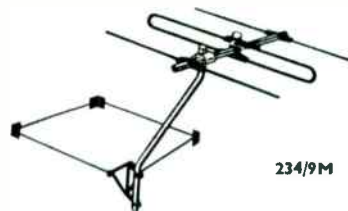
SINGLE DIPOLES

214 ARRAY ONLY Universal clamp for masts up to 2" dia. 26/-

214/1A 'GRIP-ON' 7" Stand-off arm, universal clamp (up to 2" dia.) 35/5

214/2B WALL MOUNTING 15" x 1" Stand-off arm and universal bracket 39/7

214/9C CHIMNEY MOUNTING 3' x 1" Swan-neck arm and single lashing 65/4

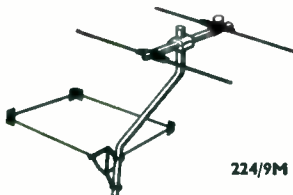


234/9M

DIPOLE AND REFLECTOR

224 ARRAY ONLY Universal clamp for masts up to 2" diameter 46/3

224/9M CHIMNEY MOUNTING 5' x 1" Cranked mast and single lashing 91/10



224/9M

3-ELEMENT

234 ARRAY ONLY Universal clamp for masts up to 2" diameter 65/6

234/9M CHIMNEY MOUNTING 5' x 1" Cranked mast and single lashing 111/1



ADDEX FM

F.M. ADAPTORS

ADDEX-FM For Vertical Band I, III or Band I/III arrays with 3/8" or 1/2" dia. elements 12/-

LOFT AERIALS



Band III 8-element vertical or horizontal

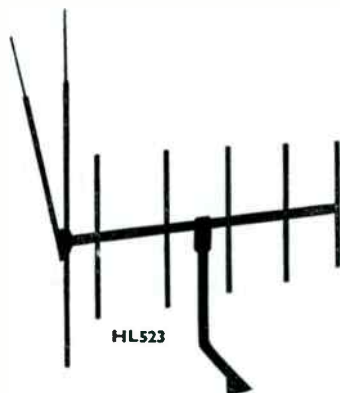
383

51/-

Ditto 5-element

39/3

383



BAND I/III

Hilo V x 5 for vertical channels

HL523

55/9

HL523



Regd. des. 887221

INDOOR SINGLE COAXIAL OUTLET BOX

For terminating aerial downloads **COB/I** 5/-

Complete with plug



INDOOR UHF/VHF FILTER UNIT

For dividing aerial downloads **UF/I** 14/3

Ready to plug in



OUTDOOR UHF/VHF COMBINING UNIT

For combining aerial downloads **UF/2** 19/9
Mast/surface mounting



Regd. des. 892485

OUTDOOR

Y4 BANDS I/II/III TRIPLEXER 19/9

Y6 BANDS I/III DIPLEXER 15/-

SB/2 SPLITTER BOX 12/6

For mast or surface mounting



Regd. des. 886499

INDOOR

Y3 BANDS I/II/III TRIPLEXER 15/9

Y5 BANDS I/III DIPLEXER 12/-

SB/I SPLITTER BOX 10/6

All complete with plug

VHF/TV AERIALS · INDOOR · BANDS I/II/III

SET-TOP, ROOM AND LOFT



VANTENNA

VANTENNA

VHF Set-top aerial for Bands I/II/III. Superbly finished in cream/gold or black/gold 27/6

VANTENNA SUPER

Extra-range version of 'Vantenna', cream/gold or black/gold 36/-

CRESTA (not illustrated)

VHF Room Aerial for Bands I/II/III. Distinctively styled in cream or black. Special model available for channels 1 and 9 27/6



VEEMASTER

SETSQUARE I

BBC 2 set-top aerial ONLY 23/6

SETSQUARE II

VHF/UHF Set-top Aerial for Bands I-V. Tuneable telescopic rods for VHF plus high gain UHF section as Setsquare I. Superbly finished in cream/gold. Separate VHF and UHF leads 45/-

VEEMASTER

Tuneable VHF/UHF Set-top Aerial for Bands I-V. Distinctive grey/chrome finish 79/6

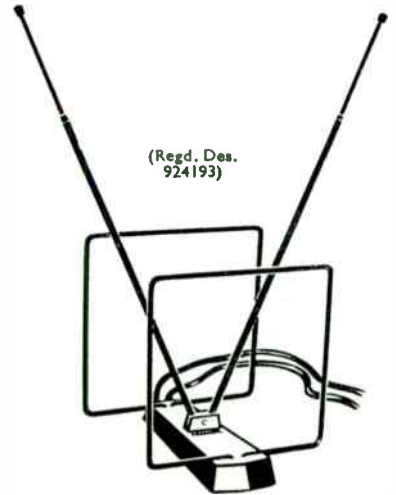
All Antiference Set-top Aerials are capacity coupled for safety

LOFTSIX LI BAND UHF BBC-2

UHF Loft Aerial comprising a six element array complete with balun, loft mounting arm and bracket 39/6



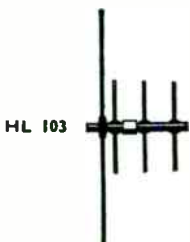
LOFT-SIX



(Regd. Des. 924193)

SETSQUARE II

VHF/TV AERIALS · OUTDOOR · BANDS I/II/III



HL 103

HL103
HL103/2C
HL103/9D

'HILO' 1+3

ARRAY ONLY
WALL MOUNTING
CHIMNEY MOUNTING

Universal clamp for masts up to 2" diameter
3' x 1" Swan-neck arm and universal bracket
3' x 1" Cranked arm and single lashing

61/-
80/1
100/4

HL117

'HILO' 1+7

ARRAY ONLY

As above

91/9

HL217

'HILO' 2+7

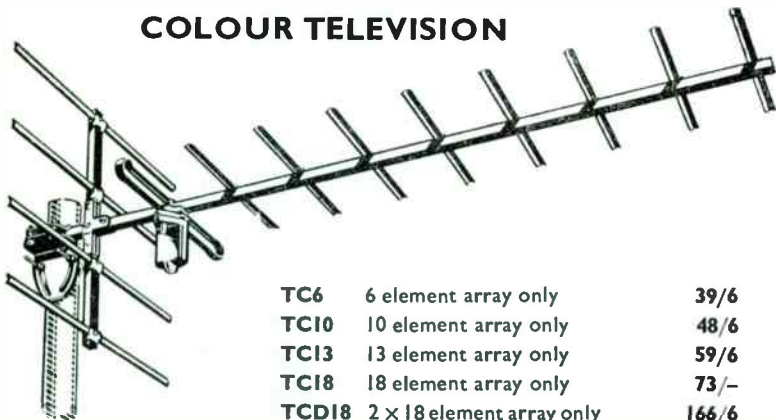
ARRAY ONLY

As above

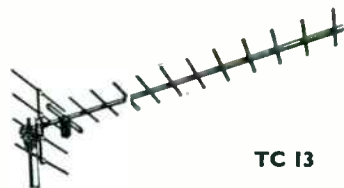
105/6

UHF/TV AERIALS OUTDOOR BAND IV/V

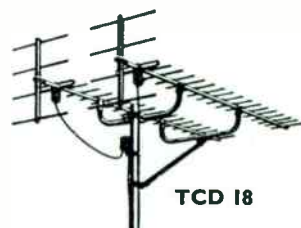
COLOUR TELEVISION



TC6	6 element array only	39/6
TC10	10 element array only	48/6
TC13	13 element array only	59/6
TC18	18 element array only	73/-
TCD18	2 x 18 element array only	166/6



TC 13



TCD 18

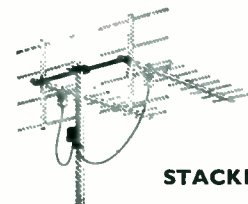
LOFT MOUNTING

For Loft Mounting use Loft Arm and Bracket C505/526 (See 'Mountings' below) Special Loft Model also available. See 'Loftsix' on previous page.

Broadside

Stacking Kit SBK9 For TC6, TC10, TC13 arrays 29/-

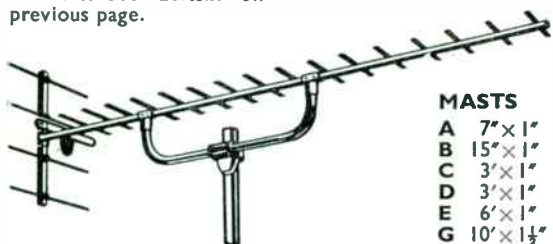
ALL ARRAYS COMPLETE WITH BALUN AND TILTING/ROLLING CLAMP FOR MASTS UP TO 2" DIAMETER.



STACKING KIT

COLOUR TELEVISION

All models are designed to meet the critical requirements of Colour Television.



MASTS

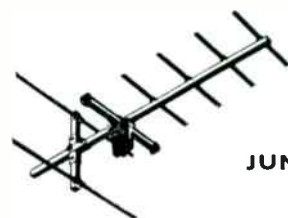
A	7" x 1"	dia stand-off arm.	3/-
B	15" x 1"	dia stand-off arm.	4/-
C	3" x 1"	dia swan-neck arm.	9/6
D	3" x 1"	dia cranked arm.	9/6
E	6' x 1"	dia straight mast.	18/9
G	10' x 1 1/2"	dia straight mast.	45/9
H	12' x 2"	dia straight mast.	85/3
K	5' x 1"	dia swan-neck arm.	15/9
L	8' x 1 1/2"	dia straight mast.	39/6
M	5' x 1"	dia cranked arm.	15/9
R	6' x 1 1/4"	dia stand-off mast.	25/9

BRACKETS

- 1 Universal clamp for masts up to 2" dia 6/5
- 2 Universal surface bracket for 1" dia masts 9/7
- 3 Wall mounting bracket for 1"-1 1/4" dia masts 17/10
- 4 Single chimney lashing equipment for 1" dia masts 26/-
- 6 HD Single chimney lashing equipment for 1 1/2" dia masts 48/-
- *7 HD Double chimney lashing equipment for 2" dia masts 51/10
- *8 HD Wall mounting for 2" dia masts 42/5
- 8 special. HD Wall mounting for 2" dia masts (19" stand-off) 85/2
- 9 Single chimney lashing equipment for 1"-1 1/4" dia masts 29/10
- 10 Three-way clamp for 3/4"-1" round booms and masts up to 2" dia 7/7
- 10B Three-way clamp for UHF aerials with square booms 7/7

*May be fitted with 1 1/2" U bolts if required.

Also available: C505/526 loft mounting arm and bracket for UHF arrays 6/5



JUNIOR



6



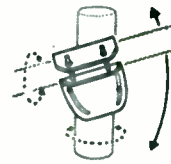
7



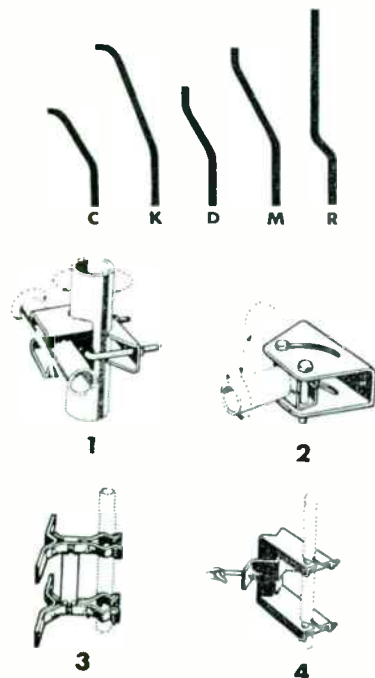
8



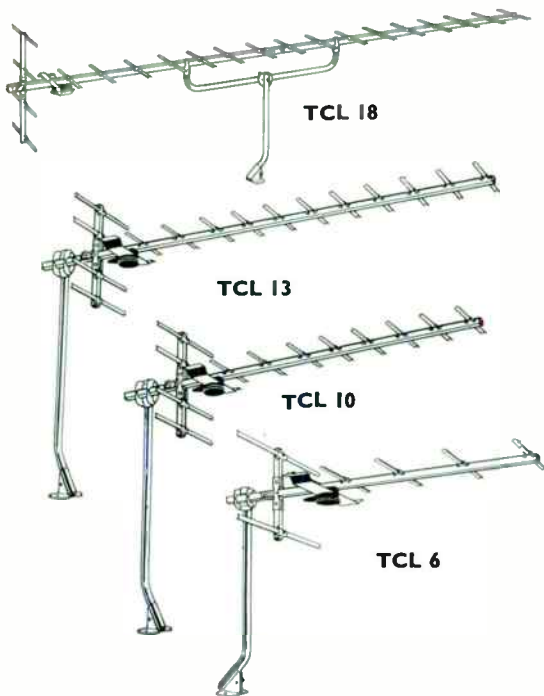
9



10



ANTIFERRENCE "TRUCOLOUR" LOFT AERIALS



6-, 10-, 13- and 18-element "Trucolour" arrays complete with the new "EASIMOUNT" arm bracket and clamp. Easy to assemble and simple to adjust, these new areials can be turned, tilted or "rolled" to get the best results possible in the loft.

TCL.18 The ultimate for loft reception. **76/7**

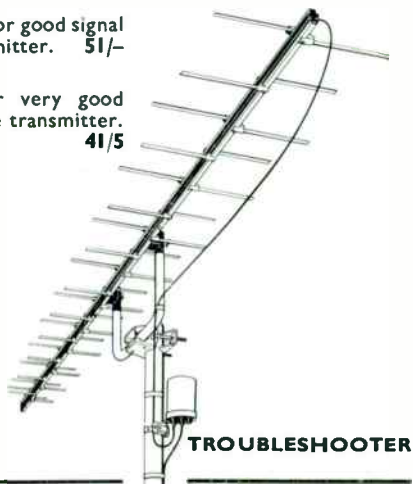
TCL.13 13-element. For use where extra gain is required. **62/5**

TCL.10 10-element. For good signal areas near to the transmitter. **51/-**

TCL.6 6-element. For very good signal areas close to the transmitter. **41/5**

All models can be used for horizontal polarised main stations or vertically polarised "fill-in" stations.

Please state channel group required when ordering;
A (21-34); B (39-51);
C/D (49-68) or E (39-68)



ANTIFERRENCE "TROUBLESHOOTERS" MK2

Log-Periodic Aerials for UHF Reception

Without Amplifier

TS.21 (Mk. 2)
21-element array, covers all channels in Bands IV and V, i.e. 21-68 (Groups A, B, C, D and E). **£5.10.0**

TS.415
15-element low-cost array, covers all channels in Ban IV, i.e. 21-34 (Group A). **£4.15.0**

TS.515
15-element low-cost array, covers all channels in Band V, i.e. 39-68 (Groups B, C, D and E). **£4.15.0**

With Amplifier

***ATS.21**
As TS.21 but with amplifier for Groups A, B, C/D as required. **£13.13.0**

ATS.415
As TS.415 but with amplifier for Group A. **£12.17.0**

***ATS.515**
As TS.515 but with amplifier for Groups B or C/D as required. **£12.17.0**

*Please state channel Group A, B, or C/D when ordering.



DOUBLE COAXIAL OUTLET COB.12

"Straight - through" connections for VHF and UHF or TV and FM. **9/7**



TV/FM FILTER Y.12

Selects signals for separate TV and FM Receivers from a common download. **19/5**



AERIAL SWITCH AS.11

Will (a) Switch from one download to another or (b) Switch aerial download from one TV to another. **19/5**



COAXIAL PLUG TVP.2

Standard plug, polished aluminium, easy to fit. **1/8**



FLY-LEAD FL.600

6-ft. cream coaxial cable, with cream insulated standard coaxial plug each end. **5/7**



UHF MASTHEAD AMPLIFIER MA.100

Channelised for groups A, B, or C/D. **£4.10.0**



POWER UNIT PU.100

For MA.100, plastic clip for back of the set. **70/-**

TELETON TH.14 13" BATTERY/MAINS PORTABLE TV



(SINGLE STANDARD 625-LINE UHF/VHF*)

This attractive portable black-and-white television set is housed in wood-type finished cabinet with front mounted controls. It includes a daylight viewing screen which removes in seconds, and has a fold-away carrying handle. This is an ideal multi-purpose set—for use throughout the home, or in caravan or boat. It can be carried on Continental holidays when it will receive European TV programmes.

*Suitable for reception in BBC 2 areas only.

TECHNICAL DATA

Main Connections: 110/120/220/240V 50 Hz.
Battery Connections: 12V.
Power Consumption: 38 watts (main); 19 watts (battery).
Channel Selector: VHF Channels 2-12; UHF Channels 21-70.
Aerials: Rod Aerial (VHF not applicable to U.K. use).
 Loop Aerial (UHF).
 Provision for connection to aerial system.
Semiconductors: 28 transistors, 18 diodes, 1 thermistor, 1 varistor.
Loudspeaker: 12 cm x 8 cm (oval P.M.).
Dimensions: 28 cm (H) x 43 cm (W) x 29 cm (D).
Weight: 10.5 kg.

£72.0.0 Carr. 10/-

TELETON TA.12EU 12" BATTERY/MAINS PORTABLE TV RECEIVER

SINGLE STANDARD 625 LINE UHF/VHF

Incorporating the most advanced solid state circuitry, with high quality silicon transistors—this model has no less than 7 patents pending for its circuit design. Features include:—

- Keyed Automatic Gain Control.
- New Horizontal Oscillator and Control Circuits.
- Automatic Stabilizing Power Circuits.

TECHNICAL DATA

Semi-conductors: 25 transistors, 15 diodes.
Antenna: Built-in telescopic aerials, plus terminal sockets for both UHF and VHF external aerials.
Speaker: 5" x 3" elliptical.
Ranges: VHF Channels 1-13; UHF Channels 21-68.
Power Supply: A.C.: 220/240V.
 D.C.: 12V car battery or special rechargeable battery.
Size Overall: 14.5" (H) x 10.4" (W) x 13" (D).
Weight: 18.5 lb.

£62.19.6 Carr. 15/-



CROWN MODEL 7TV.105



7" 625 LINES UHF BATTERY/MAINS TV

Housed in a two-tone grey plastic cabinet with contrasting bright metal trim, all normal controls are placed at the front of the set for ease of operation. A daylight viewing screen which clips instantly over a raised bezel surrounding the screen, allows comfortable viewing in daylight conditions. An earphone for personal listening is included. Operating on 625 lines UHF, the set is fitted with a telescopic aerial which can be used in strong signal areas. A co-axial input socket for an external aerial is provided. The set will operate from A.C. mains 200/250V, the Crown recharger battery pack which can be supplied as an optional extra, or a 12V car battery.

BRIEF SPECIFICATION

Frequency Range: UHF 21-68 Channel; 470-860 MHz.
Power Consumption: Mains 17 watts; Battery 12 watts.
Aerial Input Impedance: 75 ohms.
Loudspeaker: 2½" P.M.
Weight: 9½ lb.

£62.10.0 Carr. 10/-

BELLING LEE CO-AXIAL CONNECTORS



L604/S



L734J



L734P



L616



L603



L734/S



L1556

L.734/P	Free Plug	Aluminium	1/8
L.1556	Black Free Plug	Insulated	1/7
L.603	Fixed Socket	Insulated	1/10
L.604/S	Fixed Socket	Surface Mounting	1/10
L.734/S	Fixed Socket	Flush Mounting	1/7
L.616	Cable Adaptor	Female/Female	2/5
L.734/J.	Free Socket	Aluminium	3/-

BELLING LEE OUTLET BOXES

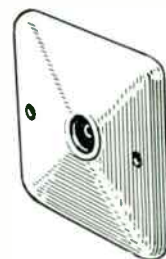
L.735A Wall mounting coaxial outlet box. 5/7



L.1476. Ditto but twin outlet. 14/-

L.735A

L.1480. Flush mounting coaxial outlet box. 9/6



L.1481. Ditto but twin outlet. 18/7

L.1480

J. BEAM SET TOP T.V. AERIALS



INSULATED STANDARD

Coaxial plugs 1/3 each

CHASSIS MOUNTING

Co-axial socket 1/3 each

CATHODE RAY TUBE E.H.T. CAVITY CONNECTORS



The availability of this connector to the retail trade makes it possible to take full advantage of the improved form of termination when replacing tubes in receivers. Not only will the E.H.T. connection be safe and secure, but also the chances of corona discharge at the higher E.H.T. potentials are greatly reduced. 1/6



ION TRAP MAGNETS

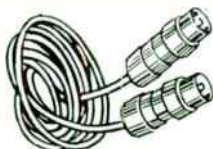
For C.R.T.

2/6

BELLING LEE MINIATURE CO-AXIAL CONNECTORS



L1465/FS	Free socket	3/9
L1465/CS	Fixed socket	3/3
L1465/FP	Free plug	1/6



CO-AXIAL LEADS

Comprises a 6-ft. length of screened co-axial cable terminating with fixed co-axial plug at either end. 7/-



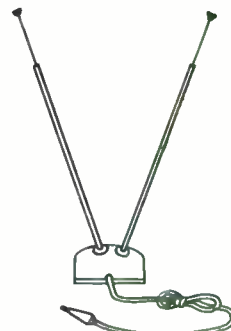
EGEN ADJUSTABLE ATTENUATOR

For use with co-axial television aerial feeders, it can simply be inserted between the receiver aerial socket and the aerial feeder plug. It can be adjusted to any of six alternative positions, indicated by numbers 1-6 (6 dBs-36 dBs).

10/6

"V BEAM" VHF AERIAL

with telescopic rods for BBC1, FM radio and Band III. Complete with cable and plug. OUR PRICE 22/6



"STARBEAM" VHF BBC2 AERIAL

A really effective aerial for those in good signal areas. Complete with cable and plug. OUR PRICE 25/-

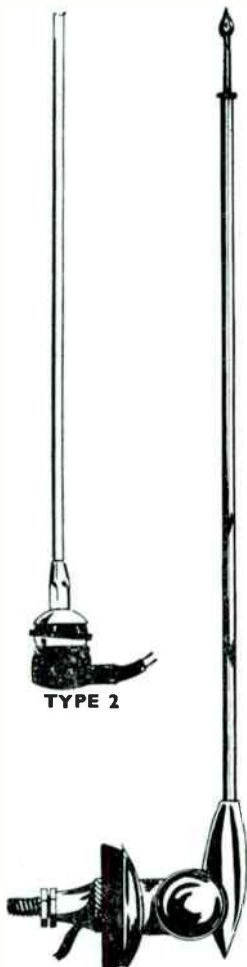
TELESCOPIC CAR AERIALS



TYPE 7



TYPE 5



TYPE 6

TYPE 2



TYPE 8



TYPE 3



TYPE 1

- TYPE 1.** 3 extension wing fixing complete with cable and plug. 15/6
TYPE 2. 3 extension wing fixing, waterproof connection under chassis, complete with cable and plug. 17/6
TYPE 3. 4 extension wing fixing, fully retractable with lock and key. Complete with cable and plug. 26/6
TYPE 4. Telescopic window fixing type complete with cable and plug. 15/6
TYPE 5. 3 section gutter fitting. Strong cast bracket. Aerial variable through 180°. 19/6
TYPE 6. 2 section all purpose aerial for roof mounting and adaptable for other positions. Aerial rotates through 90°. 25/-
TYPE 7. 5 section fully retractable semi-locking aerial. Contour adaptable fitting. Complete with keys. 19/6
TYPE 8. ELECTRIC CAR AERIAL. Four sections in stainless steel. Closed 1½", extended 39". Co-axial lead 4' 0". Length of tube below wing 15". Diameter of mounting hole required 1". Fully automatic electric model and foolproof. Easy to install. The operation of a dashboard switch extends or retracts all sections. £7.10.0

CAR AERIAL

EXTENSION LEADS

Fitted with plug and socket.

7' 6"—9/6; 10'—10/6

CAR SUPPRESSORS

1 mfd 250 V with clamp and flying lead terminal 3/6 each

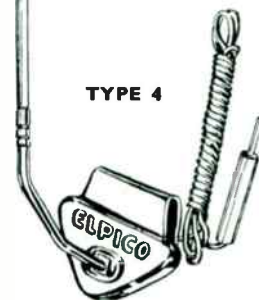
Plug Suppressors

1/6 each

EAGLE A129 12 V TO 9 V ADAPTOR



Plugs into the cigar lighter socket of car and reduces the voltage to 9 V to operate transistor portables, etc. For negative earth vehicles only. 10/-



TYPE 4

ELPICO CAR RADIOS WITH SILICON TRANSISTORS

MAYFAIR CRP500

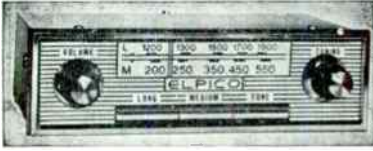


£19.10.0 Carr 5/-

The CRP500 Push-button Station Selector Car Radio with RF stage is probably the finest value in its price range. Elegant in appearance and easy to install, you just press the button to select your station.

TECHNICAL DETAILS Supply: 12 V d.c. positive or negative polarity. Consumption: .6 amp. Size: 7" x 2" x 5". Weight: 3 lb. Output: Max. 2.5 watts. Waveband Coverage: M.W.: 185-550 metres; L.W.: 1180-1920 metres. Sensitivity: M.W.: Better than 6.5 μ V; L.W.: Better than 12 μ V. Signal-to-Noise Ratio: M.W.: 40 dB; L.W.: 30 dB. Automatic Gain Control: 7 dB change from 10 μ V to 1 mV. Intermediate Frequency: 471 kHz. Controls: Volume (incorporating On/Off switch); Tone (fully variable); Tuning (slow-motion drive to illuminated 3 $\frac{1}{2}$ " long scale); 5 push-button station-selector controls (4 Medium, 1 Long). Fuse: 1 amp. 1 $\frac{1}{2}$ " x $\frac{1}{2}$ ". Supply Lead: 3' long incorporating fuse-holder. Aerial Connection: 9" flying lead with moulded socket. Speaker Lead: 4' long with easy fix tags.

KENSINGTON CR675



£15.17.6 Carr 5/-

A quality laboratory designed model making full use of space-tested silicon transistors. An RF stage has been incorporated to ensure good sensitivity, higher signal-to-noise ratio and improved automatic gain control. Wave band change and tone control by push button.

TECHNICAL DETAILS Supply: 12 V d.c. positive or negative polarity. Consumption: .5 amps. Size: 7" x 2" x 4". Weight: 2 lb. Output: Max. 2.5 watts. Waveband Coverage: M.W.: 185-550 metres; L.W.: 1180-1920 metres. Sensitivity: M.W.: Better than 6.5 μ V; L.W.: Better than 12 μ V. Signal-to-Noise Ratio: M.W.: 40 dB; L.W.: 30 dB. Automatic Gain Control: 7 dB change from 10 μ V to 1 mV. Intermediate Frequency: 472 kHz. Rotary Controls: Volume (incorporating On/Off switch); Tuning (slow-motion drive to illuminated 3 $\frac{1}{2}$ " long scale). Press-button Controls: Long waveband; Medium waveband; High/Low tone. Fuse: 1 amp. 1 $\frac{1}{2}$ " x $\frac{1}{2}$ ". Supply Lead: 3' long incorporating fuse-holder. Aerial Connection: 9" flying lead with moulded socket. Speaker Lead: 4' long with easy fix tags.

CHELSEA CR404



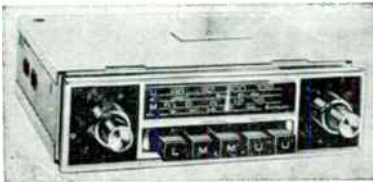
£12.10.0 Carr 5/-

Here is a new model with silicon transistors and an outstanding performance. It incorporates all the latest improvements and sells for an amazingly low price complete.

TECHNICAL DETAILS Supply: 12 V d.c. positive or negative polarity. Consumption: 4 amps. Size: 7" x 2" x 3 $\frac{1}{2}$ ". Weight: 1 lb. 4 oz. Output: Max. 2 watts. Waveband Coverage: M.W.: 180-570 metres; L.W.: 1200-1960 metres. Sensitivity: M.W.: Better than 7 μ V; L.W.: Better than 14 μ V. Signal-to-Noise Ratio: M.W.: 25 dB; L.W.: 20 dB. Automatic Gain Control: 14 dB change from 10 μ V to 1 mV. Intermediate Frequency: 471 kHz. Rotary Controls: Volume (incorporating On/Off switch); Tuning (slow-motion drive to illuminated 3 $\frac{1}{2}$ " long scale). Press-button Controls: Medium—Long waveband. Fuse: 1 amp. 1 $\frac{1}{2}$ " x $\frac{1}{2}$ ". Supply Lead: 3' incorporating fuse holder. Aerial Connection: Co-axial socket. Speaker Lead: 4' long with easy fix tags.

HITACHI CAR RADIOS WITH SILICON TRANSISTORS

KM1410 AM/FM

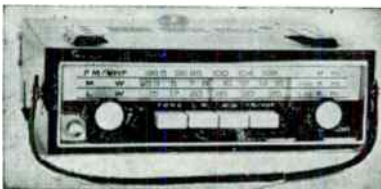


The ultimate in car radio design, the KM1410 is the latest production from the Hitachi factories. Equipped with 14 hard-working transistors (11 silicon), high sensitivity and stable reception is assured. The built-in AFC uses a high-capacitive diode.

TECHNICAL DETAILS Supply: 6 or 12 V positive or negative polarity. Size: 7" x 2" x 6" Output: 12 V, 7 watts; 6 V 6 watts. Waveband Coverage: M.W.: 180-550 metres; L.W.: 1200-1960 metres; F.M.: 88-108 MHz. Speaker not supplied.

£35.0.0 Carr 5/-

KM1100T AM/FM

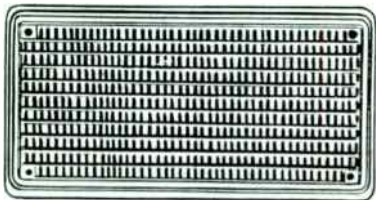


A luxurious car radio, portable. Covering Long, Medium and FM Wavebands. In the home a quality domestic radio—in your car a real car radio. Supplied with extension lead, speaker, mounting box, nuts and bolts, etc., and two locking keys.

TECHNICAL DETAILS Supply: 6 or 12 V positive or negative polarity. Output: (As portable 1.5 watts; (in car) 2 watts. Size: (As portable) 7 $\frac{1}{2}$ " x 2 $\frac{1}{2}$ " x 6 $\frac{1}{2}$ "; (as car radio) 7 $\frac{1}{2}$ " x 2 $\frac{1}{2}$ " x 8". Waveband Coverage: M.W.: 180-550 metres; L.W.: 1200-1960 metres; F.M.: 88-108 MHz.

£30.0.0 Carr 5/-

LOUDSPEAKER COVERS



6 3/4" x 3 1/2" PLASTIC GRILLE

Designed for loudspeaker covers and ventilation panels, these rectangular grilles are moulded in virtually unbreakable plastic. Fitting is by corner pin holes. Available in following self-moulded colours:—White, Cream, Grey, Brown and Black. 2/- (10p)

The same grille is also available with fashionable vacuum-coated metallic finish of Gold and Silver Chrome. 3/6 (17 1/2p)



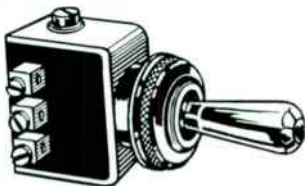
7 1/2" x 4 1/2" PLASTIC GRILLE

These slightly convex grilles have similar application for cabinets, etc., but cover a larger area. Fitting is by four hollow lugs located at the rear corners which can be inserted into receiving holes or heat fixed. Available in smart vacuum-coated metallic finishes of Gold and Silver/Chrome. 4/- (20p)

TRICO ILLUMINATED SWITCH

Strong 2-way car dash type switch with illuminated dolly. Available for 6 or 12 volts d.c.

List price 14/6. OUR PRICE, brand new and boxed, 4/6 (22 1/2p) each.



LUCAS CAR AMMETERS



Ex Ministry release. Brand new and boxed. 20-0-20 amp. 2" size.

12/6 (62 1/2p) each

BATTERY CHARGER AMMETERS



2" round 0-5 amps.

10/6 (52 1/2p) each



BATTERY CHARGER

MODEL 380. A genuine 4-amp charger of robust construction in smart, hammer finish grey case, for wall mounting or free standing use. Excellent specification includes 1 1/2" meter; 6V/12V switching; dual safety fuses; 5' of 3-core mains lead; and 5' red/black connections with heavy duty crocodile clips. With instructions.

£2.19.6 (2.97 1/2)

CAR LINE FUSE CONNECTORS

Nylon moulded single-pole plug and socket 'bayonet' action assemblies to accept 1 1/4" fuses. 1/6 (7 1/2p) each



CAR DEFROSTER

MODEL D.12

Melts ice and frost, etc., instantly from car windscreen and windows. Simply plug into car lighter and point defroster at windows from either inside or outside. Complete with 10-ft. cord, plug and snow scraper accessory. £1.2.6 (£1.12 1/2)



BATTERY-OPERATED TWO-STATION INTERCOM



An effective baby alarm, equally as good as an office intercom. Negligible battery running cost. With cable. Modern styling.

£4.10.0 (£4.50)

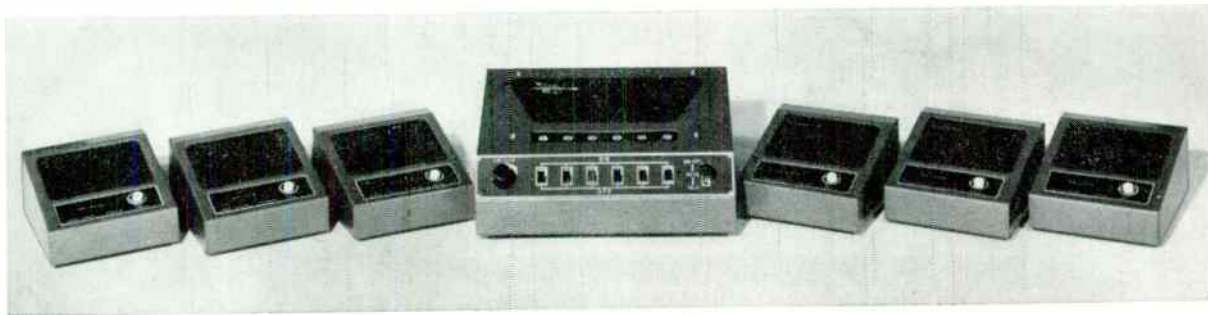
EAGLE BW.20 DUAL-OPERATION INTERCOM



Versatile two-station intercom or baby alarm. Can be operated by battery or plugged into a.c. mains. Robustly built and engineered for superb clarity. Excellent sensitivity With cable.

£5.7.6 (£5.37 1/2)

EAGLE 7 STATION TRANSISTOR INTERCOM MODEL IP.7



A superbly styled multi-way intercom system which responds to a whisper. Master unit can call, talk and listen to any one, or up to any six Subs simultaneously. Any Sub can call the Master and converse. The Master has individual pilot lamps, buzzer signals and slide switches for each Sub in the system. Compact modern cabinets of rigid steel construction.

Handsomely finished in grey brushed chrome with black speaker grilles and rubber feet to protect desk top. Master and Subs all feature high quality $3\frac{1}{2}$ " speakers. The latest battery-operated transistor circuit ensures minimum space, maximum efficiency and trouble-free operation. Master $8\frac{3}{4}$ " x $7\frac{1}{4}$ " x $3\frac{1}{2}$ ". Subs $4\frac{3}{4}$ " x $4\frac{1}{4}$ " x $2\frac{1}{2}$ ".
Master Unit £14.19.6 (£14.97½) Sub-stations £2.15.0 (£2.75)

VANTONE TELEPHONE AMPLIFIER



Deluxe model transistorised telephone amplifier. Desk mounting, grey plastic case. Will clearly amplify your telephone conversation. Suction pick-up will connect to all telephones. Flick on/off switch, volume control, battery and instructions. £2.17.6 (£2.87½)

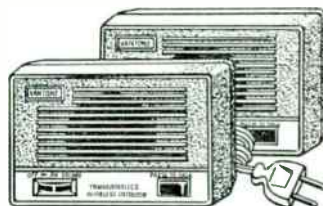
EAGLE BW.40 TWO-STATION WIRELESS INTERCOM



This is the luxury version of the two-way intercom—the "wireless" set! There is no cable connecting the two stations—simply plug both sets into the ring main or domestic power circuit.

£10.15.0 (£10.75)

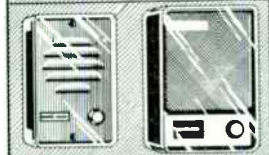
VANTONE MAINS INTERCOM



No wires, no installation, just plug them into A.C. power point and operate. Smart grey plastic finish, incorporates push-to-talk button and volume control. Extremely sensitive. Can be moved from room to room without dragging wires.

£8.12.6 (£8.62½) P/P 3/6 (17½p)

DOOR-PHONE INTERCOM



EAGLE "DOOR-PHONE" INTERCOM DP.303

Ultra sensitive transistorised Intercom designed so that you may answer the door from within, for greater convenience and safety.

Remote unit can signal the master even when system is off. Operates on standard 9 volt battery for many months. Remote unit is completely weatherproof. Complete with 50' of cable, battery and installation instructions. £4.7.6 (£4.37½)

EAGLE 12 STATION ALL MASTER INTERCOM Model AM.12

£14. .5 0. (14.25)

Developed to serve the needs of commerce and industry, this 12-station unit offers facilities only previously found in expensive Rental units.

Each station is a self-contained master unit.

Dial selects any other station in the system for immediate speech in complete privacy.

Finished in black grained styrol, the unit can be wall or desk mounted, the dial select incorporates a magnifying circle to ensure complete legibility even from a distance. The system is very flexible and can be started with immediate requirements and extended at any time up to the full 12 channels. Power is supplied by Eagle Model LA.6T Power Supply Unit £3.5.0 (£3.25) (only one is required to drive all 12 stations).

Cable: Multicore 16-way A16 (on 50-yd. drum) £8.7.6 (£8.37½)





TRANSISTORISED INTERCOMS

Supplied complete with cable, battery and instructions. Buzzer calling.

52/6 Pair



SOLID STATE 2 STATION TELEPHONE INTERCOM

- ★ Ideal private telephone intercom for business or home
- ★ Instant Communications
- ★ Separate Call and Push-to-talk buttons

Powerful solid state circuitry transmits your voice over amazingly long distances. No current drain between transmissions. In the normal 'Standby' position the power supply is automatically disconnected. Separate 'Call' and 'Push-to-talk' buttons conveniently located on the headpiece. Each phone has a wall bracket for

wall hanging. Ideal applications—For business—between warehouse and office, receptionist and office, inter-department needs; For home—between rooms, upstairs and downstairs, Kitchen, workshop, etc. Beautifully finished in ebony. Complete with batteries. Shpg. wt., 1½ lbs. Imported. Range Several miles. £6.19.6 Pair

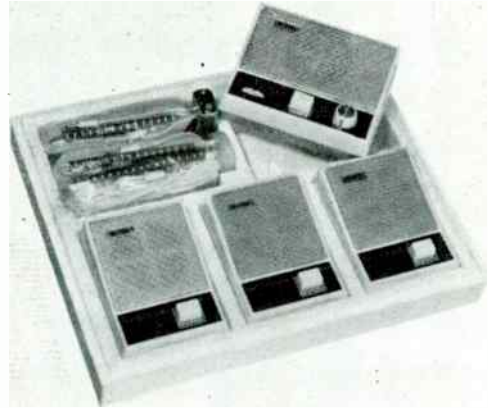
DE LUXE TRANSISTORISED WIRELESS INTERCOM

EAGLE MODEL WI.2

No wires, no installation, simply plug them into a.c. power point and talk. Extremely sensitive and free from hum and noise due to a special incorporated squelch circuit. All metal construction; Smartly finished in sandalwood tan with bright gold trim. Units have press-to-talk lock switch and on/off volume control. Additional stations can be added to the system at any time. £13.5.0 Set.



4-STATION TRANSISTOR INTERCOM

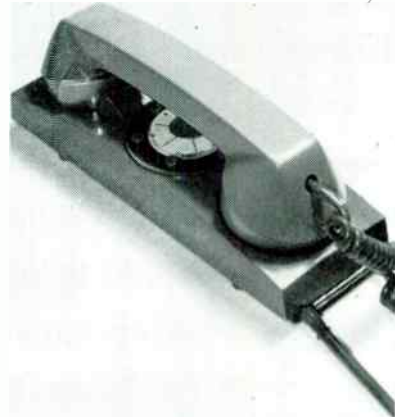


All transistor printed circuit 4-way intercom system offering excellent quality, attractive design and low price. Master unit can call, talk and listen to any of the three subs separately or simultaneously.

Ideally suited for use in homes, stores, offices, factories, hotels, etc. Compact design for desk or wall mounting. Cabinets are styled in egg shell white with gold sloping fronts. Complete with connecting cables, staples, battery and fitted gift box. £6.12.6. Set pp. 3/6

7 STATION ALL MASTER INTERCOM

Eagle Model AM.7 £12 12 0



Styled for the 1970s. This handset unit will fit in anywhere. Each Master Station selects any other by a circle of finger-tip push buttons which automatically bleep the called unit. The same flexibility as the AM.12 means that the system can be extended to the full 7 channels at any time.

Wall or desk mounted the AM.7's high impact plastic and metal construction protects it against the roughest handling. All seven units are driven from a single Eagle Model LA.6T Power Supply Unit. 65/-

Cable: Multicore 10-way AM 10 (on 50-yd. drum)

£5.15.0

DENSHI BOARD KITS

NEW EXPERIMENTAL AND EDUCATIONAL CIRCUIT SYSTEM

The **DENSHI BOARD** system enables the young experimenter and electronics hobbyist to produce a wide range of transistor circuits of increasing sophistication—without soldering or the use of any tools at all! Basically the system comprises a slotted circuit board into which plug-in components and bridge pieces are set to produce up to 30 different circuits. The components are encapsulated in transparent plastic blocks bearing the appropriate circuit symbol and value thus enabling even the complete novice to visually grasp the fundamentals of circuitry after only a few moments study. In addition each **DENSHI BOARD KIT** comes complete with an 80-page manual of circuits and data.

DENSHI BOARD KIT SR-1A comprises:

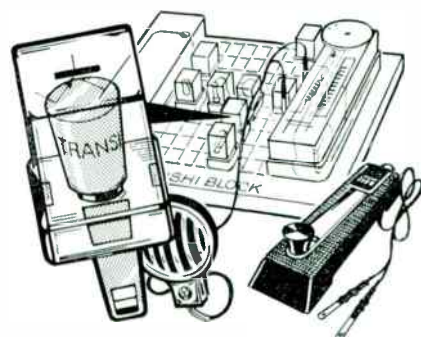
Base board; tuber block; 4 resistors; choke oil; transformer; 2SA transistor for RF; 2 diodes; 3 capacitors; battery block; morse key; antenna lead; crystal earphone; various bridge and connecting pieces and 80 page manual. This kit permits the building of 16 basic circuits.

PRICE £4.7.6

DENSHI BOARD KIT SR-2A as SR-1A but with the following additional parts:

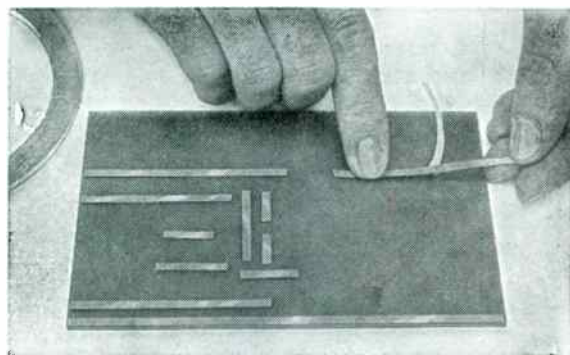
2SB transistor for AF; 2 resistors; 1 capacitor; crystal microphone; test probes; electrode; additional connecting pieces; 9V battery. This kit permits the building of 30 circuits.

PRICE £6.2.6



THESE ARE JUST A FEW OF THE CIRCUITS YOU CAN BUILD IN MINUTES: VARIOUS RADIO RECEIVERS, AMPLIFIERS, MORSE CODE PRACTICE DEVICE, CONTINUITY TESTER, SIGNAL INJECTOR, SIGNAL TRACER, WIRELESS MICROPHONE, ETC., ETC.

PEAK SOUND "CIR-KIT"

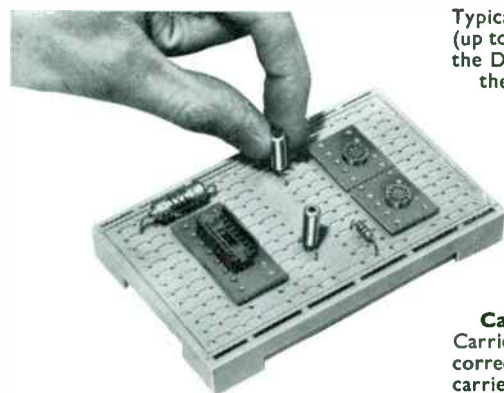


"Cir-Kit" is supplied in conveniently prepared packs to enable the home constructor as much as the lab. or industrial user to make single or prototype circuit boards quickly and very cheaply. "Cir-Kit" also provides the ideal way to repair existing conventional printed circuits. It comprises strip and sheet in 99.5% pure copper lacquered with corrosion resist on the rear and backed with an exclusively developed powerful self-adhesive which actually strengthens with age. "Cir-Kit" is quick, clean and instant in application, and easily modified. Nothing could be simpler or more efficient in making circuits as constructors as well as leading industrial organisations are finding to their advantage. "Cir-Kit" cuts costs too.

PEAK SOUND CIR-KIT PACK 3 comprising 6 x 12in. Bakelite Laminate E.10 board, 6 x 4in. Cir-Kit adhesive sheet and approx. 15ft. of 1/8in. adhesive Cir-Kit strip—enough for about 10 separate circuits, complete in sealed polythene pack with instructions.

15/-

U-DEC BREADBOARDS FOR INTEGRATED CIRCUITS



Typically a μ -DeC will accommodate four 10 lead OP5 stations or two DIL stations (up to 20 lead DIL). Each DeC has three bus-bar rows of contacts extending across the DeC and two independent panels of contacts. Each panel contains 10 pairs of these rows of contacts (4 connection points are placed in the middle of these panels).

μ -DeC "A"

This is a versatile general purpose breadboard for IC's. IC's are mounted on standard carriers thus accommodating a wide variety of IC packages. **£2.15.0**

μ -DeC "B"

This board has IC sockets as part of the DeC and is useful when breadboarding with one type of IC package. Available is a "B" type with two 16 lead DIL sockets attached, but with sufficient demand, other socket types are available. **£5.5.0**

Carriers

Carriers push into the μ -DeC "A" (and T-DeC's). A polarising pin ensures correct orientation of the carriers. Pins are silver plated (.0002"). Available are carriers for 10 lead TO5 packages and 16 lead DIL packages, either plain, so that IC packages may be soldered directly to the PC board, or with appropriate sockets mounted on the carriers (enabling the carriers to be re-used).

S-DeC

the 'BREADBOARD' for the transistor age

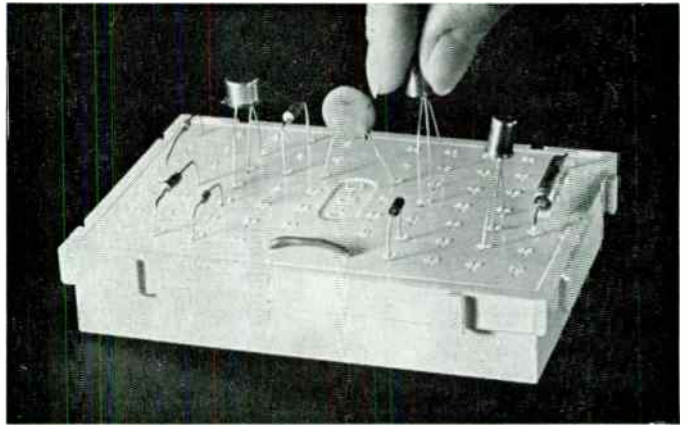
S-DeCs are a professional breadboard which are used in their thousands in industrial and Government research laboratories and being used increasingly in educational establishments from degree level electronics courses to the teaching of electricity to primary school children. This breadboard is sold world wide, and over 50% of current production is exported.

- QUICK, FIRM, RELIABLE CIRCUIT ASSEMBLY
- LASTS INDEFINITELY—performance unchanged after 1,000 insertions
- PUTS AN END TO 'BIRDSNESTING'
- RE-USE COMPONENTS AGAIN AND AGAIN
- SAVES TIME, MONEY AND EFFORT

SINGLE DeCs. One S-DeC with Control Panel, Jig and Accessories for solderless connections to controls, etc., with booklet 'Projects on S-DeC' giving construction details for a variety of interesting circuits. **20/-**

2-DeC KIT. Two S-DeCs with control panel and accessories, a booklet of projects and a container for storing components with its own lid. Supplied in black plastic box. **£2 10 0**

4-DeC KIT. Four S-DeCs with two Control Panels, Jigs and Accessories and the booklet 'Projects on S-DeC' all contained in a strong, attractive plastic case. Ideal for the keen enthusiast and professional user. **£3 18 0**

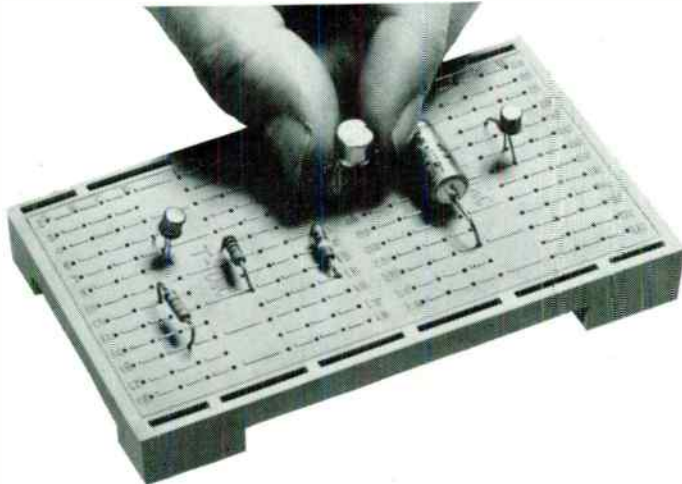
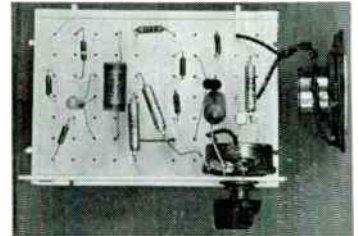


The contacts are arranged in rows of five (numbered) which are joined together electrically as shown in the diagram. This arrangement is similar to that used in the popular printed wiring board so that the same methods of laying out circuits may be used. An S-DeC contains two of these 5 x 7 panels enabling most electronic building blocks to be accommodated. For very large circuits the decking can easily be enlarged by keying the units together forming a firm continuous area of decking of any desired size.

Components are simply pushed into the sockets where they are held securely by the double leaf spring phosphor-bronze contacts. This system ensures a good wiping action on insertion and withdrawal so giving a low resistance contact. Little force is required to push in or pull out the components but they are held firmly when inserted. Solderless connectors are provided in an accessory kit for use with controls. The controls are mounted on a panel which slots into the S-DeC base.

(Illustration below shows 3 stage audio amplifier.)

Insertion/Withdrawal Force 90 gm. wt
Capacitance between adjacent rows of contacts 3pF.
Resistance between adjacent contacts 10m Ω
Resistance between adjacent rows of contacts 10¹⁰ Ω

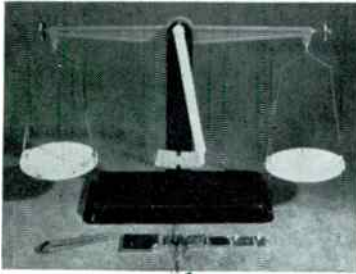


T-DeC

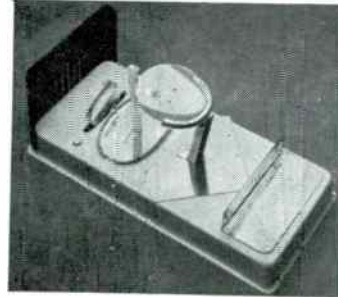
VERSATILE GENERAL PURPOSE BREADBOARD FOR INTEGRATED CIRCUITS AND DISCRETE COMPONENTS

Although T-DeCs are designed primarily as a general purpose breadboard for use with discrete components, integrated circuits may be accommodated using standard carriers for the various integrated circuit packages. This DeC is therefore extremely versatile in its applications. Other features include: 208 contacts per DeC. 38 rows of contacts per DeC. 5 mm separation between rows—enables modern short lead devices to be inserted directly into the contacts. Typical capability—six to ten stages of discrete circuitry and two T05 stations or one DIL station per DeC. Polarising locations for IC carriers. Control panels have three 12.5 mm (0.5") holes and a set of bushes for reducing to smaller diameters. DeCs may be temperature cycled. Contact surfaces in a range of finishes. **50/-**

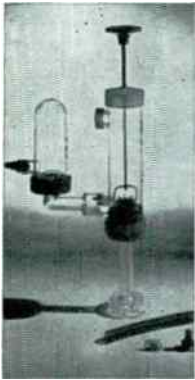
EAGLE EDUCATIONAL KITS



KA.1 Balance Kit. Twenty parts including adjustment nuts for balance arms, tweezers for handling weights, five metal weights up to 5 grams and indicator to show difference in balance. Extremely accurate. With pictorial instructions. 9/-



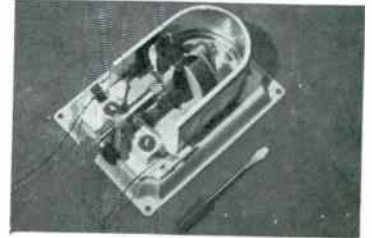
KA.2 Lens Kit. Eleven parts, including candle, one concave lens, one convex lens, stage and slit frame, etc. Watch light rays bend as they pass through different lenses. With pictorial instructions. 7/-



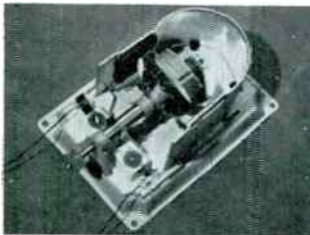
KA.3 Water Pump Kit. Thirteen parts. Top of pump is transparent so that operating parts may be observed. Small parts are brightly coloured to be seen easily while working. Three types of pump may be made: Lift Pump, Force Pump and Force Pump with reservoir and nozzle. With pictorial instructions. 9/-



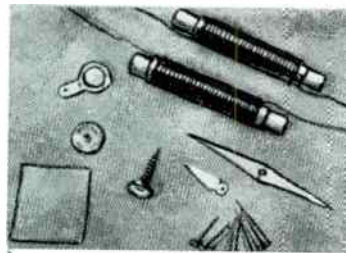
KA.4 Buzzer Kit. Eleven parts. Transparent covers allow the operation of buzzer to be seen. Illustrates and teaches how electro-magnetism with an automatic switch results in an operating buzzer. With pictorial instructions. 7/-



KA.5 2-Pole Motor Kit. Twenty-four parts, including enamel wire, armature and pole piece, etc. Motor operates from 1½-volt battery. Illustrates and teaches how electro-magnetism operates a motor. With pictorial instructions. 9/-



KA.6 3-Pole Motor Kit. Twenty-four parts, including enamel wire armature and pole piece, etc. Learn how electro-magnetics operate a 3-pole motor. Motor operates from a 1½-volt battery. With pictorial instructions. 9/-



KA.7 Electro-Magnet Kit. Fifteen parts, including compass. Makes two electro-magnets, one with one layer of wire and one with several layers of wire. Picks up tacks, nails and any small metal parts showing how magnetism works. With pictorial instructions. 9/-

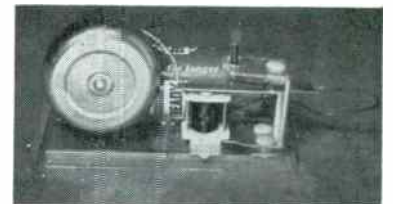


KA.8 Current and Resistance Kit. Twenty-nine parts, including bench and light bulb. Conduct interesting and educational projects to learn the application of 'OHMS LAW' and see the difference in current and resistance with different types and lengths of wire. With pictorial instructions. 9/-

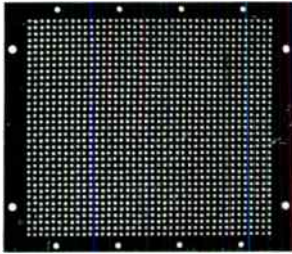


KA.9 Bell Kit. Eight parts, including bell and push-button switch. Build a complete electric bell and see how the hammer is triggered to make the bell ring. With pictorial instructions. 7/-

KA.10 Telegraph Key, Buzzer and Bell Kit. Twenty-eight parts for three projects to make a telegraph key, buzzer and bell. Learn while building this kit the function and powers of electro-magnetism. With pictorial instructions. 7/-

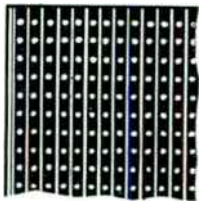


**PEAK SOUND 'CIR-KIT'
PERFORATED CONSTRUCTION
BOARDS · I MATRIX**



5" × 3½" 5/-
2½" × 3½" 3/-
2" × 3½" 2/-

'CIR-KIT' COPPER STRIP
5' × ¼" or 5' × ⅙" 2/6



VEROBOARD

High-grade lam-
inated board with
copper strips
bonded to it
pierced with a
regular matrix
of holes.

·15" PITCH

2½" × 17" 10/7 3½" × 17" 14/7
2½" × 5" 4/2 3½" × 5" 5/6
2½" × 3½" 3/5 3½" × 3½" 4/-

·1" PITCH

2½" × 5" 4/9 3½" × 5½" 5/5
2½" × 3½" 4/2 3½" × 3½" 4/9

·15" PITCH PLAIN BOARD

2½" × 17" 7/7 2½" × 5" 3/3
3½" × 17" 10/7 2½" × 3½" 2/9
4·95" × 17" 15/-

Accessories:

Spot face tool cutter 7/3
Pin insertion tool 9/7

Terminal Pins

36 packet 3/7
200 packet 14/3
1000 packet 49/6

SPECIAL VEROBOARD PACK

Contains 5 Veroboards with copper
strips. Size 2½" × 1½" and spot face
cutter tool. Normal price 12/8.

OUR PRICE 9/9

RUBBER GROMMETS

Various sizes
1/- per dozen

SYSTOFLEX/SLEEVING

Various sizes and colours
2/6 per 12 lengths (approx. 3')

**NEON MAINS
TESTER/SCREWDRIVERS**



High Tension Neon Tester with moulded
lens incorporated into the strong handle.
Insulated screwdriver blade; pen-type
pocket clip. Rated at 500 V. 5½" long.

3/-

Smaller version of above with similar
mains rating but overall length of 4½".

2/9

RADIO SCREWDRIVERS

Small pocket type with clip, insulated
plastic handle.

7d. each

EAGLE NT.1 NEON TESTER

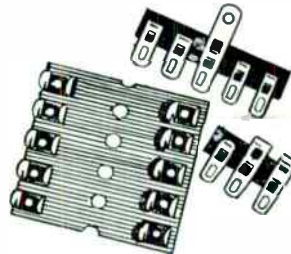


Handy for testing a.c. lines, polarity of
a.c., blown fuses, tracing ground lines in
a.c. circuits.

Can be used on voltages up to 550 volts
a.c. or d.c.

5/6

**TAG MOUNTING STRIPS
AND GROUP BOARDS**



STRIPS

2 Way	1 Earth	..	..	1½d
3 Way	1 Earth	..	..	2d
4 Way	1 Earth	..	..	3d
5 Way	1 Earth	..	..	3d
7 Way	2 Earth	..	..	4d
12 Way	2 Earth	..	..	6d
14 Way	Miniature	..	..	9d
28 Way	Miniature	..	..	1/3

DOUBLE GROUP BOARDS

12 Way	1" Spacing	..	..	2/2
24 Way	1" Spacing	..	..	4/3
48 Way	1" Spacing	..	..	8/6
12 Way	1½" Spacing	..	..	2/-
24 Way	1½" Spacing	..	..	4/-
144 Way	1½" Spacing	..	..	24/-
16 Way	2" Spacing	..	..	3/-
48 Way	2" Spacing	..	..	12/-
96 Way	2" Spacing	..	..	24/-



NSW.210

EAGLE NSW.210 210 pieces assorted
nuts, screws and washers.

7/-

PLUGS AND SOCKETS



WPI 3mm insulated wander plugs
various colours.

9d each



WSI 3mm insulated panel sockets.

9d each



TS1 4mm insulated banana plugs.

1/3 each



TS2 4mm insulated banana
line sockets

6d each



Type 75/550 Chassis
mounting co-axial sock-
et, suitable for use with
81/690.

1/-

Type 20/165 Non re-
versible mains con-
nector 2 pin. Used on
Sobell and Philips re-
ceivers.

1/6



CAR AERIAL PLUGS
1/- each

**COMPONENTS
OUR SPECIALITY**

Let us quote for all your
requirements



DRY BATTERIES

STOCKISTS OF EVER-READY
VIDOR AND RAYOVAC
TRANSISTOR BATTERIES

Ever-ready	Vidor	Voltage	Price
PP1	VT1	6v.	4/-
PP3	VT3	9v.	2/6
PP4	VT4	9v.	2/3
PP6	VT6	9v.	3/9
PP7	VT7	9v.	4/6
PP8	VT8	6v.	10/6
PP9	VT9	9v.	5/-
PP10	—	9v.	12/-
PP11	VT11	4½ + 4½ v.	5/6

HIGH POWER BATTERIES

For radios, recorders, etc. RAYOVAC—VIDOR—EVERREADY.

HP7—9d.; HP11—1/4
HP2—1/6

TORCH BATTERIES

U2	1½ v.	9d
LPU2	1½ v.	1/-
U11	1½ v.	6d
U11LP	1½ v.	9d
U7	1½ v.	9d
U12	1½ v.	4d
U16	1½ v.	6d
No. 8	3 v.	1/-

MALLORY MERCURY BATTERIES

RM675 as used in Sinclair Micro-matic 2/9

HEARING AID H.T. BATTERIES

B121	15 v.	3/9
B122	22½ v.	4/6
B123	30 v.	5/-

GRID BIAS BATTERY

Winner 9	9v.	2/3
----------	-----	-----

L.T. BATTERIES

AD28	4½ v.	4/-
AD35	1½ v.	3/6
AD38	7½ v.	5/-
I289	4½ v.	1/9
I26	4½ v.	4/-

H.T. BATTERIES

B101	67½ v.	14/6
B107	90 v.	17/3
B114	69 v. + 1½ v.	16/-
B126	90 v.	13/-

EAGLE POWER SUPPLY UNIT MODEL LA.6T

Input: 220/240 volts a.c.
Output: 6 volts d.c. 500mA

65/-



BATTERY ELIMINATOR



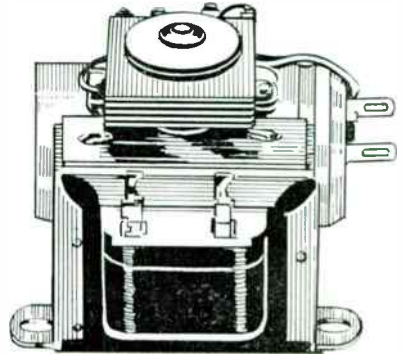
New model utilising transformer and silicon rectifier for complete safety. Can be used for transistor radios, recorders, intercoms etc.

Output switchable for 6, 9 or 12 volts. Input 220/240V AC. Supplied with instructions and a variety of battery connectors and leads. 59/6

NEW!

Five-way version giving 3, 4.5, 6, 9 or 12 V. 75/-

NEWMARKET PACKAGED POWER UNITS



Newmarket pre-assembled Packaged Circuits have been developed to provide standardised starting points in the design of all types of equipment. Their use saves expensive, time-consuming research, thus cheapening the production of new types of electronic equipment.

Code	PC 101	PC 102	PC 106
Nominal Rating	9V at 100mA DC	21V at 320mA DC	12V at 500mA DC
Ripple at full load (max.)	200mV RMS	110mV RMS	600mV RMS
Input voltage	220/250V	220/250V	220/250V
Use with amplifiers on page 56	PC2, 3, 4, 7, +/12	—	PCS+
PRICE	30/-	52/6	45/-



EAGLE MODEL RP 124

SOLID-STATE REGULATED POWER SUPPLY

The RP124 is a fully regulated power supply with a variable output of 0-24 V at 1 amp. A dual scale, switched meter is built-in to monitor voltage and current.

Specification:

Input Voltage: 220-240 V a.c.
 D.C. Output Voltage: Variable 0-24 V
 D.C. Output Current: 0-1 amp
 Line Regulation: Better than .07%
 Ripple: 3 mV at full load
 Voltage/Current Indication: Switched meter reading
 0-30 V and 0-1.5 amps
 Size: 185 x 85 x 105 mm

£13.10.0 Carr. 5/-

ALL TRANSISTOR REGULATED DC POWER SUPPLY

EAGLE MODEL RP.216

Low voltage regulated d.c. power supply, for educational, laboratory, test, circuit development production and component evaluation applications. Input Voltage: 220-240 volts a.c. Output Voltage: 0-15 volts d.c. continuously variable. Output Current: 0-2 amps. d.c. Line Regulation: Better than 0.05%. Ripple: 3 mV peak-to-peak at full load. Protection Circuit: Constant current shifting, automatic return. Operating Temperature: 0-50°C. Two front panel meters monitor voltage and current simultaneously. Housed in a robust, well-ventilated metal case.

7½" x 5½" x 3⅞". £21.10.0 Carr. 7/6



6-9-12 VOLT DC 1 AMP POWER SUPPLY

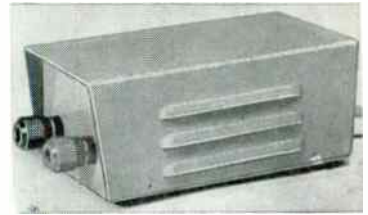
EAGLE MODEL P.112

A robust, versatile, well filtered, very low ripple d.c. power supply for operating and servicing: Radios, intercoms, Tape Recorders, Amplifiers, Tuners, Transistors, etc. Input Voltage: 230-250 volts a.c. Output Voltage: Switched 6-9-12 volts d.c. Output Current: 1 amp. d.c. Front panel illuminated voltage meter. Rear panel output binding post terminals. Housed in a ventilated metal case 6" x 3½" x 2¼".

£6.15.0



500mA AC ELIMINATOR



EAGLE MODEL LA 10S

Robust all metal case 500 mA a.c. adaptor. To operate 9-volt d.c. equipment from a.c. mains to ensure constant voltage thereby greatly increasing your equipment's performance and considerably reducing battery costs.

Features fully isolated transformer, d.c. output terminals, a.c. lead and instructions. 65/-

MINIATURE 50mA AC ELIMINATOR



EAGLE MODEL LA9P

Miniature a.c. adaptor to operate 9-volt radios, intercoms, etc., up to 50 mA from a.c. mains. Features double wound stepdown transformer, supplied with snap terminals, leads and instructions.

Size: 2⅜" x 1⅞" x 1⅞".

30/-

RENDAR SAFE BLOC



Provides a safe, quick and secure means of connecting 2-core or 3-core bare-ended flexible leads to a.c. mains.

Height 2", Width 2⅝", Depth 5", when closed.

PRICE 46/6



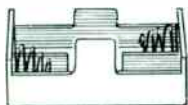
BS.5 Five assorted battery sleeves for Ever-Ready U2, U11 and U7 or equivalent. 5/3



BHS.24 Battery Sleeve for 4 1.5-volt batteries. Ever-Ready U11 or equivalent. 2/-



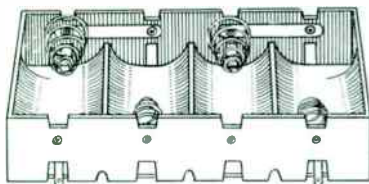
BH.4L Moulded Battery Holder with snap terminal for 4 U7 or equivalent. 3/-



BH.211 Moulded Battery Holder for 2 U11 or equivalent. 3/9



BH.411 Moulded Battery Holder for 4 U11 or equivalent. 3/9



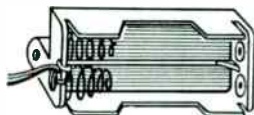
BH.4U2 Moulded Battery Holder for 4 U2 or equivalent. 6/3



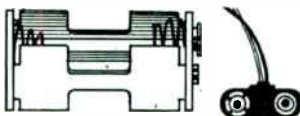
BH.9 9-volt Snap-on Battery Holder. Ever-Ready PP3 or equivalent. 9d.



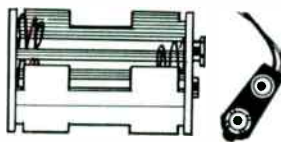
BH.2 Moulded Battery Holder with snap terminal and leads. For 2 Pen Light batteries. Ever-Ready U7 or equivalent. 2/9



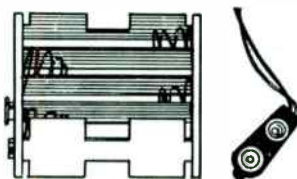
BH.3 Moulded Battery Holder for 3 Pen Light batteries. Ever-Ready U7 or equivalent. 3/-



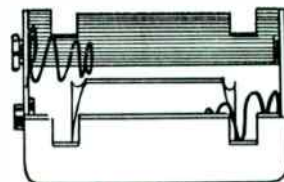
BH.4N Moulded Battery Holder with snap terminal and leads for 4 Pen Light batteries. Ever-Ready U7 or equivalent. 3/-



BH.6 Moulded Battery Holder with snap terminal and leads for 6 Pen Light batteries. Ever-Ready U7 or equivalent. 3/6



BH.8 Moulded Battery Holder with snap terminal and leads. 8 x U7. 3/9



BHL.2 Moulded Battery Holder for 2 1.5-volt batteries. Ever-Ready U2. 4/6



BHL.4 Moulded Battery Holder for 4 1.5-volt batteries, U2 or equivalent. 4/6



BH.23 Moulded Battery Holder for 4 Pen Light batteries. Ever-Ready U7 or equivalent. 3/-



BHL.24 Moulded Battery Holder for 4 1.5-volt batteries. Ever-Ready U11 or equivalent. 3/6



BHL.34 Moulded Battery Holder for 4 Pen Light batteries. Ever-Ready U7 or equivalent. 3/-



LARGE PRESS STUD 10d pair

**MINIATURE TWO-WAY
PLUG AND SOCKET**



PLUG, moulded type
Two-pin, non-reversible pattern, reach $\frac{3}{8}$ ". Dimensions of moulded part: W. $\frac{1}{16}$ ", H. $\frac{1}{12}$ ", D. $\frac{3}{32}$ ".

SOCKET, laminated type
Two socket pattern for two-hole fixing. Dimensions: W. $1\frac{1}{8}$ ", H. $\frac{1}{16}$ ", D. $\frac{1}{4}$ ".
9d pair

EAGLE AP.3

Battery/Mains cut-out power plugs 2/6



EAGLE BC.4

Four pieces heavy duty Battery Clips 4/9



EAGLE MCC.10

Ten pieces miniature chrome alligator clips. 3/6



EAGLE BHC.10

Ten pieces medium alligator clips with insulated bakelite handles. 5 Red, 5 Black. 4/6



EAGLE MIC.10

Ten pieces medium alligator clips with insulated vinyl covers. 5 Red, 5 Black. 5/-



BULLDOG BATTERY CLIPS

T.131 42 mm, 1 amp 6d. each
T.132 50 mm, 5 amp 8d. each
T.133 64 mm, 10 amp 11d. each

CAR BATTERY CLIPS

Strong Spring, 25-amp rating



1/- each

CROCODILE CLIPS

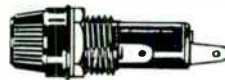
Standard size 2 for 9d.
Miniature size 2 for 9d.



INSULATED CROCODILE CLIPS

Available Red and Black
Standard size 6d. each
Miniature size 5d. each

EAGLE FH.117



2/9

Fuse Holder for $1\frac{1}{4}$ " fuse. Length 48 mm. Diameter 15 mm. Cap diameter 17 mm.



MINIATURE PANEL-MOUNTING FUSEHOLDERS

Single hole fixing. Will accept 20 mm or $\frac{3}{8}$ " fuses. 2/9 each

BELLING LEE HEAVY DUTY FUSEHOLDERS



30 AMP RATING 12/6 each complete

GLASS FUSES

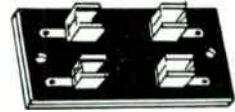
Standard $1\frac{1}{8}$ " long x $\frac{1}{4}$ " diameter.
60, 100, 150 mA 6d. each
250, 500, 750 mA 4d. each
1, 1.5, 2, 2.5, 3, 5, 10 A 4d. each
20 mm long x 5 mm diameter (will replace most $\frac{3}{8}$ " fuses)
100, 200, 250, 500 mA 6d. each
1, 1.5, 2, 3, 5 A 6d. each

PLUG FUSES

For 13 amp. plugs, etc.
2 amp., 3 amp., 5 amp., 7 amp., 10 amp., 13 amp. 1" length. 6d. each



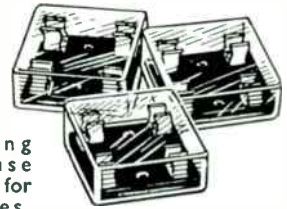
FUSEHOLDERS



Chassis mounting for $1\frac{1}{4}$ " radio fuses. Single 6d. Double 10d

EAGLE FH.23

Chassis mounting twin Fuse Holders, for $1\frac{1}{4}$ " fuses.



Complete with plastic covers. 1/4 each

BELLING LEE ENCLOSED FUSE HOLDERS

For $1\frac{1}{4}$ " fuses. Double 2/-



FLEXIBLE TERMINAL BLOCKS



Moulded polythene. Screw terminations. 12-way.

TB1 2 amp 2/-
TB2 5 amp 2/-
TB3 15 amp 3/6

Belling Lee L744 Rubber Moulded 12-way Terminal Blocks. 2/6 each

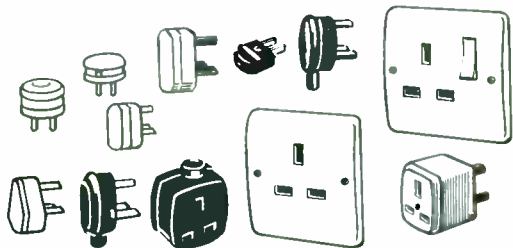
BIB FLEX SHORTENER



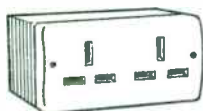
The neat, easy way to shorten a flex. Shortens without cutting.

2/6 per pack of four

MAINS PLUGS AND SOCKETS



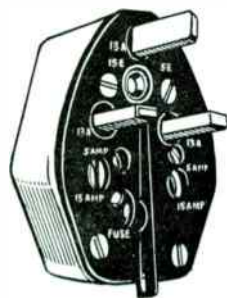
2-amp 3-pin White Bakelite Plugs	...	...	1/6 each
5-amp 3-pin Brown Bakelite Plugs	...	...	1/6 each
5-amp 3-pin White Bakelite Plugs	...	...	2/- each
5-amp 3-pin Black Moulded Rubber Plugs	...	...	2/6 each
5-amp 3-pin White Moulded Rubber Plugs	...	...	2/3 each
5-amp 3-pin Black Moulded Rubber Extension Sockets	...	...	4/- each
13-amp 3-pin Brown Bakelite Plugs, fused	...	...	2/- each
13-amp 3-pin White Bakelite Plugs, fused	...	...	2/6 each
13-amp 3-pin Black Moulded Rubber Plugs, fused	...	...	2/6 each
13-amp 3-pin White Moulded Rubber Plugs, fused	...	...	3/- each
13-amp 3-pin Black Moulded Rubber Extension Sockets	...	...	4/6 each
13-amp 3-pin Flush White Bakelite Wall Sockets	...	...	5/- each
13-amp 3-pin Flush White Bakelite Wall Sockets, switched	...	...	6/6 each
13-amp 3-pin White Bakelite 2-way Adaptors	...	...	5/6 each
15-amp 3-pin Brown Bakelite Plugs	...	...	2/- each
15-amp 3-pin White Bakelite Plugs	...	...	2/3 each
15-amp 3-pin Black Moulded Rubber Plugs	...	...	3/- each
15-amp 3-pin White Moulded Rubber Plugs	...	...	3/3 each
15-amp 3-pin Black Moulded Rubber Extension Sockets	...	...	5/6 each
American Standard 2-pin Flat Plugs	...	...	1/3 each



TWIN 13-AMP OUTLETS

British made. Ivorine.

BARGAIN OFFER 3/6 each



FITTALL PLUG

This plug will fit the following sockets: 13 amp, 3-pin; 15 amp, 3-pin; 15 amp, 2-pin; 5 amp, 3-pin; 5 amp, 2-pin. Measures only 3" x 2" x 1 1/4" and is fused. Invaluable to the service engineer or for items like movie projectors, drills and soldering irons. 14/6 each

EAGLE PVC.10 SUPERIOR QUALITY ELECTRIC INSULATING TAPES



Display carton contains 10 rolls of 3/4" x 33' assorted coloured tapes, flame proof Hi-dielectric polyvinyl. Each roll individually wrapped.

17/6

CABLES AND FLEXIBLES

MAINS LEAD, 3-CORE ROUND

A superior 14/0076 3-core mains lead with 0.03" moulded sheathing. Overall diameter of 0.22". White, Grey, Brown and Black.

1/- per yd. £4.10.0 per 100 yds.

MAINS LEAD

Highest quality copper twin 14/36 conductors in side-by-side PVC insulation easily stripped and centre parted. Wall thickness of 0.5 mm. Transparent and White finishes.

6d. per yd. £1.17.6 per 100 yds.

MAINS LEAD, 2-CORE OVAL

Very supple PVC moulded sheathed 14/0076 mains lead. 2-core, Red and Black coded. Overall diameter of 0.21" x 0.13". White, Grey, Brown and Black.

9d. per yd. £3.7.6 per 100 yds.

7/0076 Single screened uncovered ... 6d. per yd.

14/0076 Single screened PVC covered, Black ... 1/- per yd.

MICROPHONE CABLE, SINGLE

7/0076 tinned copper conductor with "quick-strip" lapped screening and pliable PVC covering. Overall diameter of 0.135". White, Cream, Green, Grey, Brown and Black.

9d. per yd. £3.7.6 per 100 yds.

MICROPHONE CABLE, TWIN

Similar in specification to the above, but with two 7/0076 conductors, (Black and Red coded), inside cotton filled PVC outer. Overall diameter of 0.195". Cream, Grey and Black.

1/6 per yd. £6.15.0 per 100 yds.

PICK-UP CABLE, SINGLE

Super lightweight 7/004 stranded lead with braided screening and PVC covering in Grey. Diameter of 0.08". Ideal deaf-aids, pick-up connections, miniature circuits. 100-d. drums.

1/- per yd. £4.10.0 per 100 yds.

PICK-UP CABLE, TWIN

Twin version of above with two coded 7/004 leads. Oval diameter of 0.075" x 0.1". 100-yd. drums in Grey only.

1/3 per yd. £5.12.6 per 100 yds.

STEREO SCREENED LEAD

Two individually lapped screened 7/0076 leads in side-by-side centre parting PVC covering. Coded conductors. Overall dimension of 0.12" x 0.238". 100-yd. drums in Grey only.

1/6 per yd. £6.15.0 per 100 yds.

12-core 7/0076 screened PVC covered, Brown ... 2/6 per yd.

20-core Solid ex-G.P.O. PVC covered, Grey ... 3/6 per yd.

10 amp Single flexible PVC and rubber covered ... 6d. per yd.

T.R.S. Twin 10 amp rubber covered, Black ... 9d. per yd.

Twin 5 amp Padded rubber silk covered ... 6d. per yd.

300-ohm Flat twin feeder ... 6d. per yd.

75-ohm Low-loss coaxial cable: 7/0076, Brown, White or Black ... 8d. per yd.

75-ohm Low-loss coaxial cable for V.H.F. (625 line), Brown or Black ... 1/3 per yd.

Deduct 10% if ordering 100-yd. reels of any one type

CONNECTING WIRE

PVC covered. 5 yds. each of 5 assorted colours.

Solid core 2/6 packet Flexible core 3/- packet

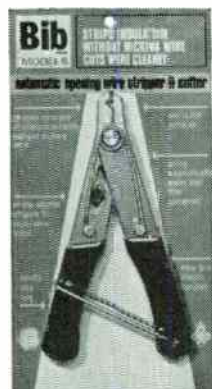
BIB WIRE STRIPPER AND CUTTER MODEL 3



Strips insulation without nicking the wire, cuts wire and splits plastic twin flex. Easily adjusts for most wire sizes.

6/- each

BIB AUTOMATIC OPENING WIRE STRIPPER AND CUTTER MODEL 6



Fitted with automatic opening spring, for quick, repetitive flex and cable stripping. Screw adjusts stripper for usual wire sizes. Easy grip plastic-covered handles, and handle locking ring.

8/6 each

BIB WIRE STRIPPER AND CUTTER WITH 8 GAUGE SELECTOR MODEL 8



Strips insulation from flex and cable in seconds, quickly adjusted to usual wire thicknesses. Unique 8 gauge selector. Fitted with easy grip plastic-covered handles.

10/- each

BIB HOME ELECTRICIAN'S KIT

For electrical repairs in home, workshop and garage. Conveniently packed in plastic wallet, which folds to pocket size.

Comprises:

Wire stripper and cutter. Insulating tape. 2 flex shorteners. Plug size screwdriver. 5- and 15-amp fuse wire. Tape solder pack. 14/6



EAGLE BT.15 BATTERY TESTER

A unique "on load" battery tester which places the correct load across the battery being tested. Three colour zones read: replace, usable and good.

Voltages/load ranges:

Ranges	Ranges
1.5 high	13.5
1.5 low	15.0
4.5 high	22.5
4.5 low	45.0
6.0	67.5
7.5	75.0
9.0 high	90.0
9.0 low	—

Dimensions: 150 x 96 x 58 mm.

£8.2.6



THYRISTOR-CONTROLLED DRILL SPEED CONTROLLERS OR LIGHT DIMMERS

Suitable for use on loads up to 3 amps. Fully variable. Simply connect direct into mains lead. British made.

PRICE 39/6

ERSIN MULTICORE SOLDER



FIG. 1

CISAV.18.	18 swg.	30'
C160.18.	18 swg.	29'
No. 5.	18 swg.	12'
No. 10.	22 swg.	212'
No. 11.	16 swg.	50'
No. 12.	18 swg.	102'
No. 14.	16 swg.	7'
No. 15.	22 swg.	21'



FIG. 2

SAVBIT	Fig. 1	..	..	..	5/-
60/40	Fig. 1	..	..	..	5/-
SAVBIT	Fig. 2	..	..	..	3/-
60/40	Fig. 1	..	..	..	15/-
ARAX	Fig. 1	..	..	..	15/-
SAVBIT	Fig. 1	..	..	..	15/-
ARAX	Fig. 2	..	..	..	3/6
60/40	Fig. 3	..	..	..	4/-



FIG. 3

ELECTROLUBE PRODUCTS



ELECTROLUBE CONTACT LUBRICANTS are manufactured in two groups which cover the vast majority of applications.

'X' GROUP

This group is available as an oil (2X) and a grease (2G-X). These two grades cover the majority of contact lubrication problems efficiently and safely. This group may be used with complete confidence as they are completely compatible with all known plastics, paints, rubbers, etc.

2X

For use on all types of light duty contacts including relays, TV tuners, potentiometers, etc., under normal ambient temperatures.

Where very high or very low temperatures are encountered please use the '2' group contact lubricants.

2AX 6 oz. Aerosol 21/-

2G-X

For use on all types of heavy duty contacts including circuit breakers, motor starters, drum controllers, etc. 2G-X has excellent arc suppression and adhesion characteristics. 2G-X will not easily migrate from vertical contact arrangements.

Where very high or very low temperatures are encountered please use the '2' group contact lubricants.

2GAX 6 oz. Aerosol 22/6

'2' GROUP

This group covers the majority of contact lubrication problems extremely efficiently, but may tend to soften certain thermoplastics, particularly polystyrene, and should be used with care in the vicinity of these materials. Available as No. 1, a 50/50 mixture of solvent and oil, No. 2, an oil and 2G, a grease.

No. 1

The solvent fraction will remove burnt on and dried contamination which the pure oil cannot penetrate. A thin film of No. 2 is left on the cleaned contact which will loosen tarnish and protect the contacts from further tarnish. No. 1 is only suitable for non-arcing contacts.

B.2 2 oz. Bottle 27/-
P.1 Snorkel Pen 11/6

No. 2

For use on all types of light duty contacts including relays, TV tuners, potentiometers, etc.

B.2 2 oz. Bottle 40/6
P.2 Snorkel Pen 12/-

2G

For use on heavy duty contacts to suppress arcing and its excellent adhesion is required to prevent removal by weather conditions or the wiping action of the contacts.

2GX 20 cc Tube 12/6



OTHER ELECTROLUBE PRODUCTS

PCL—Printed Circuit Lacquer

A lacquer specially developed to protect printed circuit boards against oxidation and moisture without introducing any soldering problems. As the lacquer acts as a flux, normal soldering can take place both during production and servicing.

16 oz. (14 oz.) Aerosol 18/9

ASC—Anti-Spatter Compound

A grease developed to prevent spatter build-up on electric and gas welding electrodes and equipment.

6 oz. Aerosol 12/6

Freezer

An aerosol of intense cold. This aerosol allows small components to be cooled by approx. 75°C (e.g. -55°C in an ambient of 20°C). Ideal for testing thermally sensitive components, locating dry joints, cooling component leads whilst soldering, etc.

6 oz. Aerosol 18/9

BIB ANTI-STATIC INSTRUMENT CLEANER

The only cleaner specially formulated to clean tape heads, delicate instrument panels, plastic, chrome, glass, printed surfaces and the exterior of electronic equipment.

This cleaner is anti-static, non-inflammable and does not smear. Used by leading TV and Electronic Instrument Manufacturers.

Special 4-oz. bottle with nozzle for easy application with soft cloth packed in a printed two-colour carton. 4/6



AEROSOL SWITCH CONTACT CLEANER



New Formula. Flexible Spray Nozzle

6/9

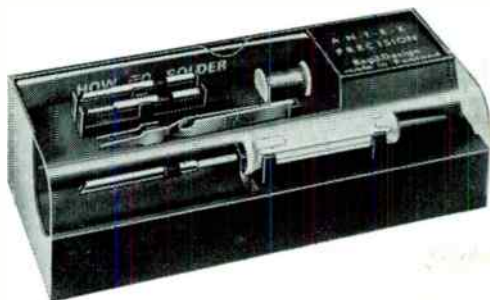


PRECISION MINIATURE SOLDERING TOOLS

A range of precision soldering irons featuring a range of removable bits without damage to the iron. Ideally suited for miniature work and home construction.



CN 240/2 The illustration shows the Model CN 240 iron, fitted with the No. 2 nickel-plated bit ($\frac{3}{32}$ "). This model is now available in a handy transparent pack to facilitate inspection without having to unpack the iron. **34/-**



PRECISION SOLDERING TOOL KIT

This kit consists of a plastic base with a transparent cover and serves as a permanent home for the Model CN 240 iron. The iron is held in place by two plastic grips and can easily be replaced after use in case a stand is required. The flexible lead can be coiled up and stored at the back complete with plug; the cover keeps the flexible lead in place. Room is provided for two nickel-plated bits ($\frac{3}{32}$ " and $\frac{5}{32}$ "). Together with the $\frac{7}{16}$ " (4.7 mm) bit fitted to the iron, these three bits provide the means to solder a wide variety of jobs, such as transistor assemblies and when soldering in the home is required for small repairs. Provision has also been made for a heat sink to protect transistors and a small reel of solder.

A booklet, 'How to Solder', which is stored at the back of the kit, gives the beginner a guide as to how a soldering iron should be used but even the experienced may well find a few useful tips.

- ★ Model CN 240 15-watt iron with $\frac{3}{32}$ " bit
- ★ Two interchangeable spare bits ($\frac{3}{32}$ " \times $\frac{3}{32}$ ")
- ★ Reel of resin-cored solder
- ★ Cleaning pad
- ★ 36-page 'How to Solder' booklet
- ★ Heat sink

55/-

Model B Low voltage, 12 volt 12 watt. Tip size $\frac{7}{16}$ " . **34/-**

Spare nickel-plate bits suitable for Models B/CN, $\frac{3}{32}$ " , $\frac{5}{32}$ " , $\frac{7}{16}$ " , $\frac{3}{16}$ " , $\frac{3}{32}$ " 4/6 each

Spare elements for Model CN **18/-**

COPPER INSTRUMENT WIRES

AVAILABLE IN 40Z. REELS ONLY

SWG.	INCH	TINNED	COTTON COVERED	SILK COVERED	ENAMELLED	SWG.
16	.064	6/-	6/6	6/6	6/-	16
18	.048	6/9	7/6	7/6	6/9	18
20	.036	7/-	8/-	8/-	7/-	20
22	.028	7/2	9/-	9/-	7/2	22
24	.022	7/9	9/9	9/9	7/6	24
26	.018	8/3	10/6	10/6	8/-	26
28	.0148	8/8	11/-	11/6	8/5	28
30	.0124	9/-	12/3	12/3	9/-	30
32	.0108	9/9	13/-	13/-	9/3	32
34	.0092	10/-	15/-	15/-	9/9	34
36	.0076	10/4	16/6	16/6	9/10	36
38	.006	10/8	17/6	17/6	10/3	38
40	.0048	12/-	19/-	19/-	10/6	40



PRECISION SOLDERING EQUIPMENT

Instant-heat Soldering Gun

Solders in seconds... heats immediately... cools quickly. Long reach... built-in spot-light. Perfectly balanced, lightweight, comfortable to use. Two position trigger for dual-heat control.

EXPERT Dual-Heat Gun. 8200D £3 5 0 100/140w.

EXPERT Soldering Kit. 8200D-PK £3 19 6 100/140w.

Kit contains: Expert Gun; resin-cored solder; cleaning brush; soldering aid tool; spanner; 2 spare bits. In fully fitted polypropylene carrying case.

ALSO **EXPERT** Dual-Heat Gun. 8250D. 119/6 275w

EXPERT Soldering Kit. 8250D-PK. 139/6 275w.



The MARKSMAN Soldering Iron

Compact, lightweight, highly efficient, gives full heat at tip. Screw-in tips and long reach for tight space working. Handle always cool. Marksman soldering iron 15w. 240v. 25/-

MARKSMAN Soldering iron SP25D 25w. 240v.. 28/-

MARKSMAN Soldering Kit SP25D-K. 38/- . Kit contains: Marksman Iron; resin-cored solder; soldering aid; 2 spare tips. 38/-

WELLER ACCESSORIES



7135 WELLERTIP Solders finest wires to heavy electrical joints. 4/- per pair

6110 CUTTING TIP Cuts plastic film and sheet material. 5/- each

6120 SMOOTHING TIP Repairs thermoplastic material. 5/- each



MODEL 85 INSTANT HEAT SOLDER GUN

Intended for precision work, this heavy duty instrument features instant heat action and is now supplied with two bits, one for standard work, the other for fine soldering tasks. The 85 watt element is housed inside the well-ventilated moulded 'gun' which incorporates finger squeeze switch action on the handle. Bits are 'U' shaped to minimise wear. This model also features a light beam automatically directed on to the bit end when solder gun is being operated. 39/6

HENLEY SOLON SOLDER IRONS



Extremely robust and long-lasting soldering equipment. An important factor is that spares are readily available. Weight 3 1/4 oz. Length 9" (excluding flex).

MODEL 615. 220/240 volts 15 watts. Bit 1 1/8" x 1/8" 28/-

MODEL 625. 230/250 volts 25 watts. Bit 1" x 3/8" 29/8

MODEL 968. 230/250 volts 65 watts. Bit 1 3/8" x 3/8" 46/8

Spare elements for Model 615 20/- for Model 625 8/4 for Model 968 10/8

Spare bits for Model 615 4/- pr. for Model 625 5/- pr.

40 watt SOLDERING IRON



A high quality product with a smart wooden handle incorporating a screw-on cover to the 40 watt element. 1 1/2" bit firmly secured in the element barrel which is air-vented for excess heat dissipation. Heavy duty 5' length of P.V.C. covered 3-core lead. 16/6



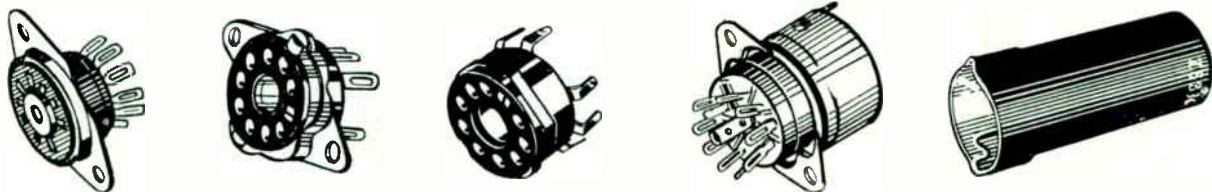
ELECTRONIC VALVES

BRAND NEW IMPORTED STOCK
OR NEW EX-MINISTRY STOCK



OA2	6/6	6C6	4/-	12AU7	6/-	6146	30/-	EF91	4/6	PL81	9/6
OB2	6/6	6C8	7/-	12AX7	6/-	6094	25/-	EF92	7/6	PL82	9/-
OZ4	6/-	6CD6	23/-	12AV6	6/-	A1714	25/-	EF183	6/6	PL83	8/-
1A7	7/6	6CH6	6/-	12BA6	6/6	AZ31	10/-	EF184	7/-	PL84	7/-
1C5	6/-	6CL6	10/-	12BE6	6/6	AZ41	7/-	EH90	8/-	PL500	15/-
1H5	7/6	6CW4	12/6	12BH7	6/6	CY31	7/-	EL34	10/6	PL504	16/-
1L4	3/6	6D6	3/-	12E1	26/-	DAF91	5/6	EL33	17/6	PY32	11/-
1N5	8/6	6E5	8/-	12J7	8/-	DAF96	7/9	EL41	11/-	PY33	12/6
1Q5	10/-	6F1	12/6	12K7	7/-	DF91	4/6	EL42	11/6	PY80	6/6
1R5	7/-	6F6G	5/-	12K8	10/-	DF96	7/9	EL81	10/-	PY81	6/-
1S5	5/-	6F13	7/-	12Q7	5/-	DK91	7/-	EL84	5/-	PY82	6/-
1T4	4/6	6F14	12/-	12SA7	7/-	DK92	9/-	EL85	8/3	PY83	7/6
1U4	6/-	6F15	11/-	12SC7	4/-	DK96	8/-	EL91	5/-	PY88	8/-
1U5	9/6	6F18	8/-	12SG7	6/-	DL92	7/-	EL95	7/-	PY800	10/-
2D21	6/6	6F23	15/6	12SH7	4/-	DL94	8/-	EM80	8/-	PY801	10/-
3A4	4/-	6F33	6/-	12SJ7	4/6	DL96	7/6	EM81	8/6	U25	15/-
3A5	10/-	6H6	3/-	12SQ7	7/6	DM70	6/6	EM84	7/6	U26	15/-
3Q4	8/-	6J4	9/6	12SR7	5/-	DY86	6/6	EM85	11/-	U50	6/-
3Q5	8/-	6J5	4/-	14S7	16/3	DY87	7/-	EM87	11/-	U52	6/-
3S4	7/-	6J5GT	6/-	19AQ5	6/6	E88CC	12/6	EY51	8/-	U191	14/-
3V4	8/-	6J6	3/6	20D1	9/-	E180F	15/-	EY86	8/-	U281	8/-
5R4	11/-	6J7	8/6	20F2	15/-	EABC80	6/6	EY87	8/6	U282	8/-
5U4	6/-	6K8G	6/-	20L1	20/-	EAF42	10/-	EZ40	7/6	U301	11/6
5V4	8/-	6K8M	8/-	20P1	10/-	EB91	3/3	EZ41	9/-	U801	20/-
5Y3	6/-	6K7G	4/-	20P3	12/-	EBC41	10/6	EZ80	5/6	UABC80	6/9
5Z4G	7/6	6L6GT	9/-	20P4	20/-	EBC81	6/6	EZ81	5/6	UAF42	10/6
5Z4GT	8/-	6L18	6/-	20P5	20/-	EBF80	8/-	GZ32	9/6	UBC41	9/6
6/30L2	15/-	6L34	5/-	25L6	7/6	EBF83	8/6	GZ34	11/-	UBC81	8/-
6A7	10/-	6LD20	6/6	25Z4	6/6	EBF89	6/6	KT33C	6/-	UBF80	7/3
6A8	6/6	6N7	7/-	25Z5	8/6	EBL21	12/-	KT66	27/6	UBF89	7/-
6AB7	4/-	6Q7	7/6	25Z6	11/6	EC86	12/-	KT88	33/6	UBL21	12/-
6AC7	4/-	6SA7	7/-	30C15	15/-	EC88	12/-	MU14	8/-	UCC84	9/9
6AG5	3/-	6SC7	9/-	30C17	16/-	ECC40	11/-	PABC80	8/-	UCC85	8/-
6AG7	7/6	6SG7	6/-	30C18	15/-	ECC84	6/-	PC86	11/6	UCF80	10/6
6AK5	6/-	6SH7	4/-	30F5	17/-	ECC85	5/6	PC88	13/-	UCH21	11/-
6AK6	11/6	6SJ7	7/-	30FL1	15/-	ECC88	8/-	PC97	8/6	UCH42	13/-
6AL5	3/3	6SK7	6/-	30FL12	18/6	ECF80	7/-	PC900	9/6	UCH81	6/6
6AM5	5/-	6SL7	6/-	30FL14	15/6	ECF82	7/-	PCC84	7/-	UCL82	7/-
6AM6	4/6	6SN7	5/6	30L15	17/-	ECF86	12/6	PCC85	8/-	UCL83	12/-
6AQ5	6/6	6SQ7	8/-	30L17	17/-	ECH21	11/6	PCC88	12/-	UF41	10/-
6AS6	6/-	6SS7	3/-	30P12	16/-	ECH35	12/-	PCC89	10/6	UF80	7/6
6AS7	16/-	6U4	12/6	30P19	15/-	ECH42	13/-	PCC189	11/-	UF85	8/-
6AT6	5/-	6U7	7/-	30PL1	15/6	ECH81	5/6	PCF80	6/6	UF89	7/-
6AU6	5/-	6V6G	5/-	30PL13	18/-	ECH83	8/6	PCF82	6/9	UL41	12/-
6AV6	6/-	6V6GT	6/6	30PL14	17/-	ECL80	9/-	PCF84	9/-	UL84	6/6
6B4	16/6	6X4	5/-	35L6	9/6	ECL82	6/6	PCF86	11/-	UM80	5/6
6B7	7/-	6X5G	5/6	35W4	5/-	ECL83	12/6	PCF800	15/-	UM84	5/6
6B8	3/-	6X5GT	5/6	35Z4	5/-	ECL86	8/6	PCF801	10/-	U08	7/6
6BA6	4/6	7B7	7/6	35Z5	7/-	EF37A	8/-	PCF802	10/-	UY21	11/-
6BE6	5/-	7C5	15/-	50B5	7/-	EF39	8/-	PCF805	15/-	UY41	8/-
6BH6	8/6	7C6	6/6	50C5	7/-	EF40	10/-	PCF806	13/-	UY85	6/-
6BJ6	8/6	7Y4	12/-	50L6	8/-	EF41	12/6	PCF808	15/6	VR105/30	5/6
6BQ7A	7/6	10C2	10/-	75B1	9/-	EF42	14/-	PCL82	7/9	VR150/30	5/-
6BR7	17/-	10F1	18/-	80	9/-	EF50	5/-	PCL83	13/-	VS70	4/6
6BR8	13/-	10P13	11/-	85A2	7/6	EF55	10/6	PCL84	8/9	VU111	10/-
6BV6	16/-	10P14	20/-	807	9/6	EF80	5/-	PCL85	9/6	VU120	15/-
6BW7	13/6	12A6	3/-	956	2/-	EF85	7/-	PCL86	9/6		
6BZ6	6/6	12AT6	5/-	1625	6/-	EF86	6/6	PFL200	11/-		
6C4	6/-	12AT7	4/-	5763	13/-	EF89	5/6	PL36	11/-		

VALVE HOLDERS AND SCREENING CANS



International Octal Ceramic ..	1/-	B9G (EF50) Ceramic	9d	B9A Plain Amphenol	9d
International Octal Baseboard ..	1/-	Diode (EA50) Holders	6d	B9A Plain Nylon	9d
Mazda Octal Amphenol	1/-	B7G Plain Amphenol	6d	B9A Plain Ceramic	9d
British 4-pin Amphenol	6d	B7G Plain Nylon	6d	B9A Printed Circuit Ceramic ..	9d
British 5-pin High Voltage	1/3	B7G Plain Ceramic	6d	B9A High Voltage for EY86, etc.	1/3
British 7-pin Amphenol	6d	B7G Printed Circuit Ceramic ..	6d	B9A Skirted Amphenol	1/-
British 7-pin Ceramic	1/-	B7G Skirted Amphenol	9d	SCREENING CANS	
American 5-pin (807) Amphenol ..	9d	B7G Skirted Nylon	9d	B7G Short or Long	6d
American 7-pin (UX7) Amphenol ..	9d	B7G Skirted Ceramic	9d	B9A Short or Long	8d
B8A Skirted Amphenol	9d	B7G Skirted P.T.F.E.	1/-		

VALVE TOP CAPS

1/Octal or Mazda, simple Grid Clips 1d each, 9d dozen
 Screened 1/Octal Grid Clips .. 3d each
 Insulated High Voltage Top Caps for Mazda or 1/Octal.. 6d each

BULGIN COMPONENTS



P.448 OCTAL CABLE PLUG
 Side entry
 2/9

PLUGS FOR VALVE HOLDERS
 B7G or B9A

1/9 each



International Octal Plugs 1/- each



EAGLE KB.2 2 pieces Plastic Instrument Knobs with pointer and turned insert. Fixing: 1/4". Skirt dia.: 1 1/2". 7/-



EAGLE KR.2 2 pieces Plastic Knobs with turned insert. Fixing: 1/4". Dia. 1 3/8". 7/-



EAGLE KB.3 3 pieces Plastic Instrument Knobs with pointer and turned insert. Fixing 1/4". Skirt dia.: 1". 7/-



EAGLE MK.2 Two pieces Miniature Metal Knobs. Aluminium machine turned. Skirt with pointer, 1/4" fixing. Skirt diameter 19 mm. Handle diameter 12 mm. Height 17 mm. 8/-



EAGLE KB.4 4 pieces Plastic Instrument Knobs with pointer and turned insert. Fixing: 1/4". Skirt dia.: 3/4". 7/-



EAGLE MK.50 Two pieces Aluminium Machine Turned Metal Knobs. 1/4" fixing. Diameter 27 mm. Height 17 mm. 7/6



EAGLE KR.3 3 pieces Plastic Knobs with turned insert. Fixing: 1/4". Dia.: 7/8". 7/-



TK.142 CONTROL KNOBS
 Metal insert and calibrated skirt 0-10. Skirt dia. 36.5mm. Height 16mm. 2/6 each



EAGLE CK.4 Four pieces Plastic Instrument Pointer Knobs with metal insert. 8/6



TK.143 CONTROL KNOBS
 Metal insert and plain skirt. Dia. 36.5 mm. Height 16 mm. 2/6 each



EAGLE BK.12 Twelve pieces Black Pointer Knobs with white marker. 7/6

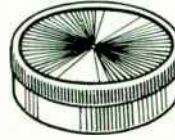
CONTROL KNOBS for STANDARD $\frac{1}{4}$ " SPINDLES



TYPE 1
R.C.A. control knobs. Very strong smart instrument knob with pointer and brass bush. Available black or white. 25 mm 1/3; 35 mm 1/9; 40 mm 2/3.



TYPE 2
Bulgin type control knobs with numbered plate 0-10 for volume controls. 47 mm dia. Available black or white. 2/- each complete.



TYPE 3
Hellerman type push-on knob. Available grey, black, cream with silver insert. $\frac{1}{4}$ " spindle. Diameter 30 mm. 1/- each



TYPE 4
Strong black pointer knob with skirt. Brass bushed. 39 mm dia 1/- each



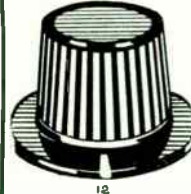
TYPE 9
Plain black control knob with white spot indicator. Brass Bushed. 18 mm X 15 mm. 1/- each



TYPE 10
Miniature high quality knob. Black with gold insert. 15 mm dia. X 18 mm high tapering. Brass bushed. 1/- each



TYPE 11
Communication type knob with numbered skirt 0-10. Silver metal insert. Size 36 mm dia. X 23 mm. Brass bushed. Available black or grey. 1/9 each



TYPE 12
Communication type knob identical to Type 11 with pointer instead of numbered skirt. Available black or grey. 1/9 each



TYPE 13
Attractive black control knob with silver metal insert. Brass bushed. 20 mm dia. X 13 mm. 1/- each



TYPE 14
All metal midget control knob. Silver. 15 mm dia. X 18 mm tapering. 1/6 each



TYPE 15
Aluminium concentric control knob with indicating mark. 26 mm dia. X 25 mm. 4/- each



TYPE 16
Aluminium control knob with indicating mark. Matches Type 15. 20 mm X 20 mm. 3/- each



TYPE 17
Aluminium control knob to give that modern professional look to your equipment. Size 25 mm dia. X 16 mm. 3/- each



TYPE 18
Aluminium control knob. Matches Type 17. Size 25 mm dia. X 12 mm. 3/- each



TYPE 19
Aluminium control knob. Size 20 mm dia. X 22 mm. 3/- each



TYPE 20
Aluminium control knob with numbered scale 0-10. 36 mm dia. 4/- each



K2
Black knob with chrome edge and white indication dot. Brass bushed. 1" dia. X $\frac{3}{8}$ ". 1/9 each



K3
Black knob with chrome insert and white indication dot. Brass bushed. 1" dia. X $\frac{3}{8}$ ". 2/- each



K4
Black knob with completely chrome top and white indication dot. Brass bushed. 1" dia. X $\frac{3}{8}$ ". 2/- each



K5
Black knob with chrome edge and white indication dot. Brass bushed. $\frac{3}{8}$ " dia. X $\frac{1}{2}$ " 1/6 each



K6
Black knob with chrome insert and white indication dot. Brass bushed. $\frac{3}{8}$ " dia. X $\frac{1}{2}$ ". 1/6 each



K7
Black knob with completely chrome top and white indication dot. Brass bushed. $\frac{3}{8}$ " dia. X $\frac{1}{2}$ ". 1/9 each



K8/30
Black instrument knob with chrome insert and white indication dot. Brass bushed. $1\frac{1}{2}$ " dia. X $\frac{1}{2}$ ". 2/3 each



K
Black instrument knob with chrome insert and white indicator dot. Brass bushed. $1\frac{1}{8}$ " dia. X $\frac{1}{2}$ ". 2/9 each

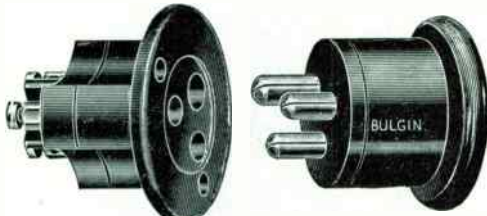
BULGIN COMPONENTS



P.73 3-pin Plug & Socket 6/-



P.74 2-pin Plug & Socket 5/6



P.437 3-pin Plug & Socket 7/9



P.162 3-pin Plug & Socket 10/3



P.360 3-pin Plug & Socket 4/3



P.194 6-pin Plug & Socket 7/6



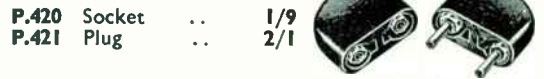
P.28 Plug 2/9



P.29 Socket 2/3



P.438 3-pin 1-5 amp mains Plug and Socket 5/- pr



P.420 Socket .. 1/9
P.421 Plug .. 2/1



J.11 Standard Open Circuit Jack 4/9



J.30 Miniature Jack 5mm .. 3/3
P.519 Miniature Jack Plug 5mm 3/6



J.6 Standard Closed Circuit Jack 5/6
J.2 Standard Open Circuit Jack 4/3
J.35 Standard Closed Circuit Jack 4/3
J.36 Standard Open Circuit Jack 2/6



P.38 Standard Jack Plug 3/9



P.538 Standard Screened Jack Plug 5/6



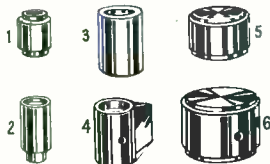
P.560

Miniature 4-pin plug and socket. 2 A, 250 V. Suitable for inlet or outlet application. 8/6



P.561

Miniature 3-pin plug and socket. 2 A, 250 V. Suitable for inlet or outlet applications. 8/-



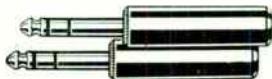
EAGLE K30 Professional type metal knobs with 1/8" shaft.
Nos. 1, 2, 3 4/- each
Nos. 4, 5, 6 6/- each



EAGLE SP.32 3-circuit stereo shielded plugs. Screw terminals. 4/6 each



EAGLE OC.64 3-circuit shielded inline stereo sockets. 4/6 each



EAGLE 2P.32 3-circuit stereo plugs. 3/- each



EAGLE OC.63 Three-circuit stereo inline sockets. 3/- each



EAGLE SP.41 Miniature 3.5 mm plug one end, with standard socket other end. 5/-



EAGLE SP.42 Miniature 3.5 mm plug one end, with phono socket other end. 5/-



EAGLE SP.43 Standard plug one end, with 3.5 mm socket other end. 5/-

EAGLE SP.44 Standard 2-way plug one end, with 2.5 mm socket other end. 5/-



EAGLE SP.45 Standard phono plug one end, with 3.5 mm socket other end 3/9



EAGLE K.3 Display pack of 3 matched metal knobs, with concave top and pointers. 9/-



SP.46 2.5 mm socket one end, 3.5 mm plug other end. 3/9



SP.47 3.5 mm socket one end, 2.5 mm plug other end. 3/9



EAGLE OC.30 Shielded inline jack socket. 3/-



EAGLE SL.30 Wide barrel standard inline socket. 2/6



EAGLE OC.25 2.5 mm inline sockets. 1/9 each



EAGLE OC.35 3.5 mm inline sockets. 1/9 each



EAGLE P.25 Sub-miniature 2.5 mm plug. 1/9

EAGLE S.25 Sub-miniature 2.5 mm socket. 1/-
2/6 pair



EAGLE P.35 Sub-miniature 3.5 mm plug. 1/9

EAGLE S.35 Sub-miniature 3.5 mm socket. 1/-
2/6 pair



EAGLE NK.2 2 pieces calibrated plastic knobs with metal inserts and skirts. 6/-



EAGLE PK.2 2 pieces plastic instrument pointer knobs, with inserts metal and skirts. 6/-



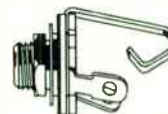
EAGLE PJM.3 Miniature 3.5 mm plug and socket. 2/6 pair



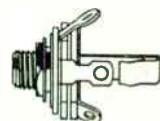
EAGLE P.31 Standard bakelite barrel plug. 2/-



EAGLE SP.31 Standard shielded plug. 3/-



EAGLE OC.34 Standard open circuit socket. 1/9



EAGLE CC.34 Standard closed circuit socket. 2/-



EAGLE OC.31 Standard inline socket. 2/6



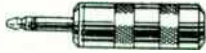
EAGLE H.304 3 pieces plastic barrel 3.5 mm plugs, one black, one grey, one ivory. 4/9



EAGLE CH.304 3 pieces shielded 3.5 mm plugs. 5/-



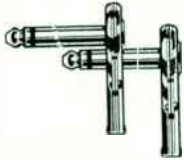
STANDARD JACK PLUG with phono entry 2/6



EAGLE CH.305 Miniature shielded 3.5 mm plug. 1/9



PL.30 Wide barrel standard plug. 2/6



Standard screened right-angle plugs. 2-way 2/6 3-way 3/-

EAGLE R.31 right angle standard Jack plug. 3/6 each



EAGLE R.32 right angle stand. Stereo Jack plug. 4/- each



EAGLE SP.33 Slim 2-way standard plug with phono socket in end of barrel.



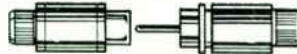
EAGLE SP.34 Standard phono plug one end with standard 2-way socket on other end. 5/-



EAGLE IPP.10 10 pieces, plastic barrel phono plugs, five assorted colours. 9/-



EAGLE DJ.1 Dual phono socket shielded plastic barrel with phono sockets each end. 2/9



EAGLE SPP.1 Shielded chrome barrel phono plug. 1/3

EAGLE SPS.1 Shielded chrome barrel phono socket. 1/3



EAGLE CA.1 72" shielded cable with moulded right angle standard plug one end; moulded phono plug other end. 6/6



EAGLE CA.2 72" shielded cable with moulded right angle standard plug one end; chromed alligator clips other end. 6/6



EAGLE CA.3 72" shielded cable with moulded right angle standard plugs both ends. 9/-



EAGLE CA.4 72" shielded cable with moulded standard plug one end; twin spade lugs other end. 6/6



EAGLE CA.5 72" shielded cable with shielded chrome phone plug and socket each end. 6/6



EAGLE CA.6 72" shielded cable with moulded phono plug one end, chromed alligator clips other end. 6/6

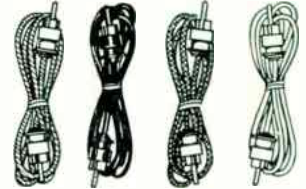
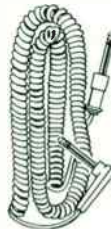


EAGLE CA.7 72" shielded cable with moulded 3.5 mm plug one end, moulded phono plug other end. 5/-

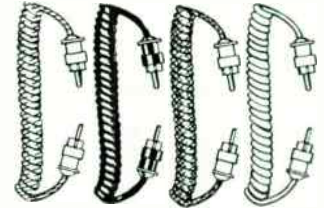
EAGLE Coiled, shielded extension cable. With moulded right-angle standard plug one end, moulded straight standard plug other end. Grey.

CL.20 20-ft. extension 21/-

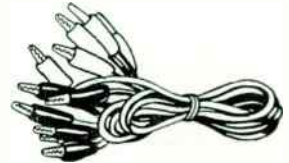
CL.25 25-ft. extension 27/6



EAGLE EC.36 Jumper Cable Kit Kit consists of 4 36" shielded HI-FI Jumper Cables, one black, one red, one green, one yellow, each with moulded phono plug at each end. Display packed. 12/6



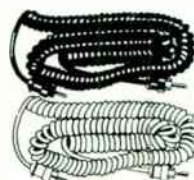
EAGLE CL.36 Kit of four 36" coiled Jumper Cables, completely retractable. One black, one red, one green, one yellow, each with moulded phono plugs at each end. 22/6



JUMPER LEAD KIT Kit of 10 colour coded 14" leads 10 handy 14" leads with miniature insulated alligator clips attached to each end. Clips and leads colour coded. 5 pairs each a different colour. Ideal for serviceman or experimenter. 5/- per set



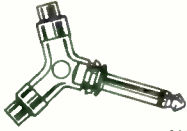
JUMPER LEAD KITS Twin 3' lead fitted with four 2 1/2" insulated crocodile clips, two at either end, coloured red and black. 2/- per set



EAGLE CL.15 15-ft. coiled Jumper Lead. Extremely flexible and retracts to 3 ft. CL.15G-Grey CL.15-Black 15/-

EAGLE Y.35

Two phono sockets connected in parallel to a standard 2-way plug. Shielded and chromed.



4/6



EAGLE Y.3.P

Two phono sockets connected in parallel to a phono plug. Shielded & chromed

4/6



EAGLE Y.4P Flexible Adaptor

Two moulded phono sockets in parallel with a moulded phono plug.

7/6



EAGLE Y.50 Flexible Adaptor

Two screened standard in-line sockets in parallel with a standard plug.

12/6



EAGLE Y.40 Flexible Adaptor

Two moulded phono sockets in parallel with a moulded standard plug.

7/6

EAGLE MR.4

Magnetic earphone 8 ohms with lead and plug. Available with 2.5 or 3.5 mm plugs.



EAGLE MR.60

Magnetic earphone 250 ohms with earcurl lead and plug. Available with 2.5 or 3.5 mm plugs.



EAGLE CR.5

Crystal earphone with lead and plug. Available with 2.5 or 3.5 mm plugs.



EAGLE DE.80

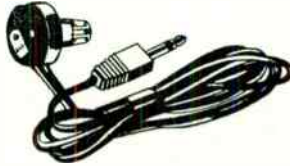
Professional quality dynamic earphone, with earcurl, 5 ft. lead and plug.

10/-



G1103 Stethoscope earphone. 8 ohm dynamic with foam ear tips, lead and 3.5 mm plug.

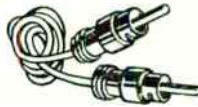
10/-



FOSTER RF6D DYNAMIC EAR PIECE

Provides near high fidelity listening over a wide frequency range. Extremely sensitive; 8 ohms impedance. Over 3' of tough Grey lead with moulded 3.5 mm plug.

12/6



PHONO LEADS

6-ft. screened lead. Fitted with standard phono plugs at each end.

6/6 each

3 CONDUCTOR PHONE

PLUG & JACK

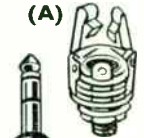
(A)

(A) 3 conductor phone jack, open circuit. Imported.

2/6

Closed circuit

3/-



(B) 3 conductor phone plug — black bakelite handle. Solder lugs. Open circuit 1/4 shaft Imported.

3/-



EAGLE EXTENSION CABLES

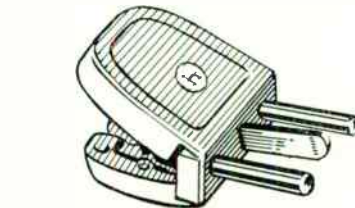
20BK—GY. Coiled 6-metre Extension Cables with tinned ends in seven colours as follows:

20BK—Black. 20RD—Red. 20BE—Blue. 20YW—Yellow. 20WE—White. 20GY Grey. 20PC—Psychedelic Multi Colour.

16/6 each



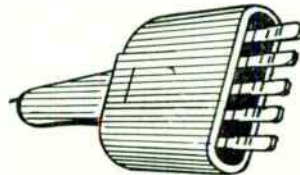
CONTINENTAL TYPE PLUGS AND SOCKETS



E5

Type E5 Pick-up and speaker plug. Flat plug with hinged insulating cover and positive press-stud closure.

3/3



E30

Type E30 A five rectangular pin non-reversible plug. Conforms to standards of International Electronic Commission. Used extensively on tape recorders for mic. and pick-up inputs, etc.

4/6

E39 Continental 3-pin free plug with locking ring.

9/9

E43 As above, but 5-pin.

10/6

E41 Continental 3-pin chassis mounting socket mating with E39 plug with locking ring.

6/3

E44 As above but 5-pin mating with E43.

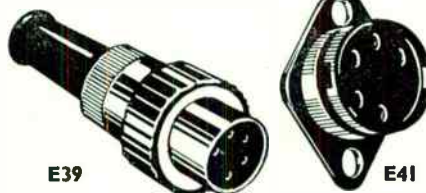
5/6

E40 Continental 3-pin free socket to mate with E39 for line coupling.

9/9

E45 As above but mates with E43.

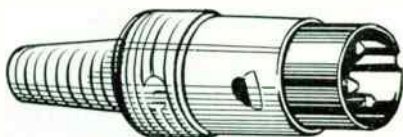
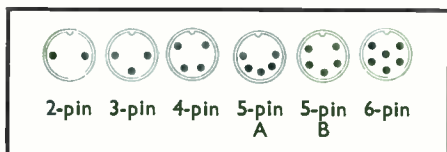
10/6



E39

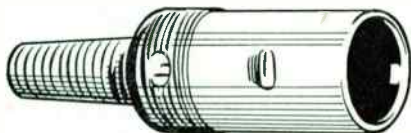
E41

CONTINENTAL DIN PLUGS & SOCKETS



LINE PLUGS

2-pin male plug	2/9	5-pin male plug (A)	2/6
3-pin male plug	2/-	5-pin male plug (B)	2/6
4-pin male plug	2/6	6-pin male plug	3/-



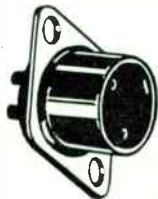
LINE SOCKETS

3-pin line socket	3/-	5-pin line socket (B)	3/-
4-pin line socket	4/-	6-pin line socket	4/-
5-pin line socket (A)	3/-		



CHASSIS SOCKETS

3-pin chassis socket	2/-
4-pin chassis socket	3/-
5-pin chassis socket (A)	2/6
5-pin chassis socket (B)	2/6
6-pin chassis socket	2/6



CHASSIS PLUGS

3-pin chassis plug	4/3
4-pin chassis plug	4/-
5-pin chassis plug	4/9
6-pin chassis plug	4/9

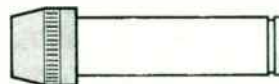
CONTINENTAL DIN LOUDSPEAKER 2-PIN PLUG AND SOCKET



One round and one flat pin cable plugs. 1/9 each
Chassis sockets with switch. 2/9 each

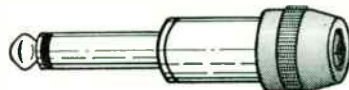
RENDAR JACK CONNECTORS

A range of high-quality connectors utilising exclusive thermoplastic cable grips and nickel-plated brass bodies.



CABLE CONNECTORS

CC101	2-contact	7/-
CC301	3-contact	8/-



JACK PLUGS

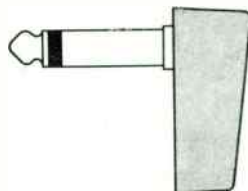
JPS401	2-contact	7/-
JPS301	3-contact	12/6



SCREW-LOCKING DEVICE

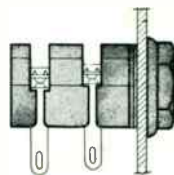
By means of the screw-locking device a mated jack plug and connector are locked together.

CC101SL	2-contact cable connector	8/6
JPS401SL	2-contact jack plug ..	8/6



SIDE ENTRY JACK PLUGS

SEJP500	Plastic body—2-contact ..	4/6
SEJPS500	Chrome body—2-contact ..	6/6



PANEL JACK SOCKETS

J521A	2-contact with 2 additional break contacts	3/6
J721A	3-contact with 3 additional break contacts	6/-

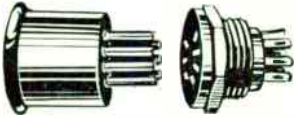
MINIATURE FULLY INSULATED SINGLE PLUG AND SOCKET



Insulation Resistance: 500 V d.c. 1,000 M ohms.
Voltage Breakdown: 1,000 V a.c.

Price 1/9 pair

MINIATURE 7-PIN PLUG AND SOCKET MODEL CN7



Moulded bakelite, chassis mounting socket and cable plug. Non-reversible.

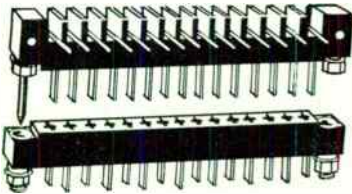
Price 5/- per pair

MINIATURE 4-PIN CONNECTORS MODEL CN4



Non-reversible, cable mounting.

Price 3/3 per pair



PAINTON IN-LINE CONNECTORS

15-pin	7/6 pair
32-pin	12/6 pair

BELLING LEE OZ CONNECTORS



5-pin Cable Sockets	1/6
5-pin Cable Plugs	1/6
7-pin Cable Plugs	1/6
5-pin Chassis Plugs	1/6
7-pin Chassis Sockets	1/3
7-pin Cable Sockets	1/6

PHONO PANEL SOCKETS



Single 8d.	
Single switched	1/-
Double	1/-
3-way	1/6
4-way	2/-
5-way	2/6

BELLING-LEE OZ PLUGS AND SOCKETS



10 AMP RATING—Available in a variety of colours
Panel sockets available 3 mm or 4 mm 1/3 each
Cable plugs available 3 mm or 4 mm 1/6 each

AUDIO FREQUENCY PHONO PLUGS AND SOCKETS

RA1826

Insulated plug.
Available in:
Red, Green,
Black, Yellow,
Blue.



9d each



S202 Chassis mounting socket.

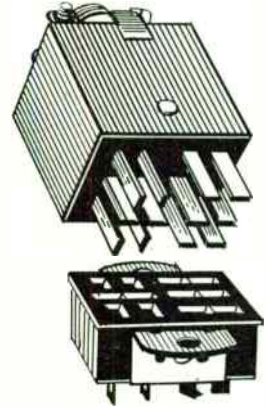
8d each



E42 Line coupling socket for standard phono plugs.

1/- each

MINIATURE JONES PLUGS AND SOCKETS



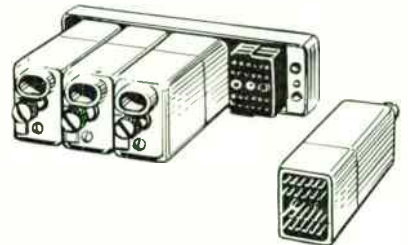
4-pin Plug and Socket ..	4/- pair
6-pin Plug and Socket ..	4/6 pair
8-pin Plug and Socket ..	4/6 pair
12-pin Plug and Socket ..	5/6 pair
18-pin Plug and Socket ..	8/6 pair
24-pin Plug and Socket ..	12/6 pair
33-pin Cable Plugs only ..	10/- each

PLESSEY 20-way Plug & Sockets



High-quality ex Ministry multi-way plug and socket. 10/6 per Pair

PLESSEY 80-WAY PLUG AND SOCKETS



80-pin base with four separate 20-pin cable plugs which lock into position. 27/6 per set



EAGLE TS.62 2-way screw terminal strip. 10d



EAGLE TS.63 3-way screw terminal strip. 1/-



EAGLE TS.64 4-way screw terminal strip. 1/4



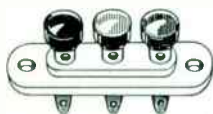
EAGLE SLT.2 Spring loaded 2-way, push-button terminal strip. Square Heads, 1 red, 1 black. 3/6



EAGLE SLT.3 Spring loaded 3-way, push-button terminal strip. Square Heads, 2 red, 1 black. 4/6



EAGLE SLT.4 Spring loaded 4-way, push-button terminal strip. Square Heads, 2 red, 2 black. 6/-

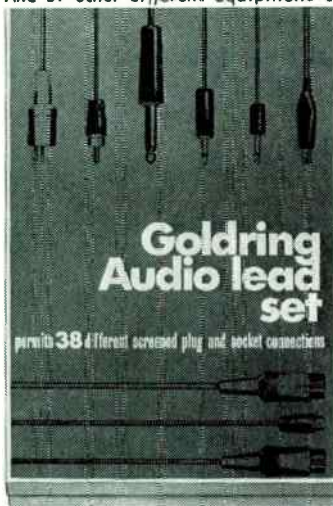


TERMINAL STRIPS

Plastic strip fitted with screw terminals and coloured insulated tops. 2-way 9d. 3-way 1/-.

SHORT OF A LEAD?

With a 3-pin DIN plug on one end and 3.5 mm jack on the other— With the Goldring Screened Audio Lead Set, you've got it —instantly—at your finger tips. And 37 other different equipment-to-equipment connections as well. With cable



lengths of 20", 40" or 60" according to the combinations you use. All tidily and instantly to hand in a small, neat storage box. There's no longer any need to have an unwieldy collection of dozens of different leads... and still be short of the right one! This new Goldring set will give you most of the connections you're ever likely to want—without searching for cables and plugs, without soldering, without waiting, without further expense. The Goldring Audio Lead set is a real investment at **£3.6.0**

*Goldring are now marketing an extremely useful range of individually packed leads, plugs, sockets and connections for audio enthusiasts.

'UHF' SERIES CONNECTORS

A series of nominal 50-ohm connectors to MIL specifications. Highest quality materials with PTFE insulation. Non-constant impedance design suitable for use up to 500 V peak and 200 MHz—or to 500 MHz with diminished performance.

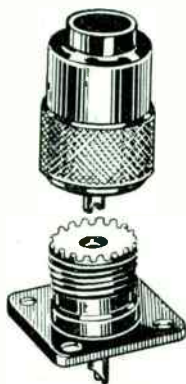
'UHF' Plug (PL259) 7/6
Fits UR57, 59, 65, 67, 81; RG8, 9, 11, 13, 63, 65

Dimensions: Length 1.5". Diameter 0.75". Weight 1 1/4 oz.

'UHF' Socket (SO239) 5/-
Dimensions: Length 1.08". Height 1". Depth 1". FC. 4-hole 0.125" diameter on 0.718 centres. Weight 1 oz.

'UHF' Reducer Small (UG-175/U) 2/6
Enables UHF plugs to be used with UR43, 72, 76; RG29, 55, 58 or any cable of 0.21" diameter.

'UHF' Reducer Large (UG-176/U) 2/6
Enables UHF plugs to be used with UR41, 55, 56, 70, 84; RG59, 62, 71 or any cable of 0.25" diameter.



ELREMO-WOLF SOLDERSTAT IRONS

Newly introduced range of high-quality soldering irons.

MODEL MS



This miniature soldering iron is the product of extensive research and development, featuring a new concept in the construction of heating elements to give long service life. Weighing less than 1 oz, it is suitable for the mass production of the most delicate micro-electrical assembly.

12 watts, 220/240V.

£1.12.6 (£1.62 1/2)

Replacement Bits 3/5 (17p) Replacement Elements 18/- (90p)

MODEL HMS



Similar to the MS except that the 7/8" diameter stem is designed to carry a larger soldering bit. Fitted with the same tapering triangular "easy grip" anti-roll handle, it meets the requirements for heavier applications in miniature soldering. Most suitable for the home user as well as the mass electronic industries.

24 watts, 220/240V.

£1.9.6 (£1.47 1/2)

Replacement Bits 4/- (20p) Replacement Elements 15/- (75p)

M.E.S. PANEL INDICATORS



JOHNSON TYPE A

Diamond Cut Glass Cap. Available in red, green, blue or white. 2/9 each.



BULGIN INDICATOR LAMP

Panel mounting. Red bezel with chrome surround. Clip-on MES bulb holder.

1/- per set

L BRACKET TYPE

Available in red, green, amber, white or clear. 1/9 each.



L BRACKET TYPE WITH MODERN SQUARE FRONT

Available in red, green, blue or yellow. 2/3 each.

JOHNSON TYPE B

Beautiful Moulded Plastic Cap. Available in red, green, blue, amber or white. 2/6 each.



LILLIPUT PANEL LAMPHOLDERS



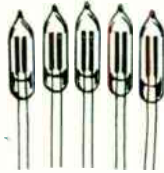
Available in red or green 1/3 each. 12v. or 6v. Lilliput lamps 9d. each.

Available in red, green, white, yellow or blue 1/6 each. 12v. or 6v. Lilliput lamps 9d. each.



HIVAC

16L 90 volt neons 1/9 each.



EAGLE N5 NEON BULBS

5 pieces general purpose neons. Operating voltage: 50 V a.c. Series resistance for 250 V a.c.: 470 k ohms. Dimensions: 14 x 6 mm. 7/6

120 VOLT NEONS

Available on midget bayonet cap base or small ediswan screw base 1/6 each.

PANEL BULBS



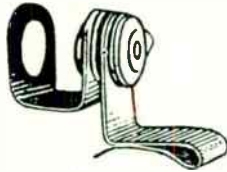
Miniature L.E.S. (Lilliput).

6 volt. 9d.
12 volt. 9d.
24 volt. 1/-

Standard M.E.S.

6-Sv.	.06A.	10mm.	1/-
6-Sv.	.06A.	11mm.	1/-
6-Sv.	.15A.	11mm.	1/-
6-Sv.	.3A	10mm.	1/-
6-Sv.	.3A	11mm.	1/-
12-0v.	.1A	11mm.	1/-
24v.	.1A	10mm.	1/-

M.E.S. CLIP ON LAMPHOLDERS



4d. each.



EAGLE PL.2

Kit of two miniature Pilot Lamps, one red, one green, with 6-volt bulbs and mounting units. 6/- each



EAGLE IL.115

Square head, indicator lamp holder, MES fitting. Lens 17 x 12 mm. Length 43 mm. Mounting diameter 16.5 mm. Available red, green, blue or yellow. 2/6

NEW RANGE OF MAINS PANEL NEONS

Range of 5 colours available

3/6 each

Modern square front. Fits 3/8" panel hole
Dimensions: 1/2" x 7/8" x 1 1/2" depth including tags. 1 1/2" behind panel.

Colours: Red, Green, Amber Blue, Clear. 200/250 volts.



NEW HIGH QUALITY PANEL INDICATORS

Modern styling. Translucent lenses. MES screw fitting. Available red, green, blue, amber, clear. 2/9 each



EAGLE BN.113

Neon Lamp, 200-250 volt a.c. operation. Red lens. Lens diameter 9 mm. Total length 31 mm. Mounting diameter 9 mm. 3/6



MAINS PANEL NEONS

200/250 V. Will fit 1/2" diameter hole. Complete with wires Red only. 2/6



4-MM INSULATED SOCKETS

A high-quality turned socket to suit all Continental standard 4-mm. diameter plugs. Nylon moulding to suit panels up to 0.50" thick, mounting hole 0.312" diameter. Contact part silver plated. Choice of colours Black, Blue, Green, Red, Yellow or White. 1/- each



BELLING LEE INSULATED TERMINALS

amp — 1/3 each 15 amp — 2/3 each



NEW TYPE LILLIPUT LAMP HOLDER

High-quality panel mounting type. Chrome bezel translucent lens. Available in red, green, blue, white, yellow. 2/- each



INSULATED PANEL TERMINALS

Will take a Spade or 4mm. Banana Plug in top. Available in Red or Black.

12mm. 1/- each.
16mm. 1/3 each.

INSULATED PANEL TERMINALS

Will accept spade or 4mm. plug. Available in red, black, green, blue, yellow or white.

2/- each.



PUSH-BUTTON SWITCH

SP-ST Push on—release off. 1 amp 125V a.c. 12 mm fixing hole. Solder lug terminals. 2/6 each

SUB-MINIATURE TOGGLE SWITCHES

3 amp 250v.

6 amp 125V a.c.
Solder lug terminals.

80-2A SPST (2P) On-Off. 5/- each

80-3A SPDT (3P) On-Off. 5/6 each

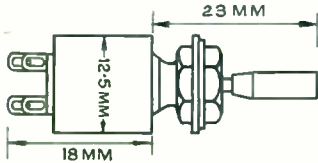
80-3C SPDT (3P) On-Off-On. 6/6 each

80-6A DPDT (6P) On-Off-On. 7/- each

80-6C DPDT (6P) On-Off-On. 8/6 each



MINIATURE TOGGLE SWITCHES



High quality miniature toggle switch Rating 3A. 125V 1-5A 250V. Action Double pole double throw. Insulated toggle. Available Red or Black. Chromium plated bush and fixing nuts. 6/6 each

TOGGLE SWITCHES WITH SPLIT DOLLY

Double pole, single throw 1/- each.
Double pole, double throw 1/9 each.

BIASED TOGGLE SWITCHES

Single pole, single throw 1/9 each.
Single pole, double throw 2/6 each.
Double pole, double throw 3/- each.

TOGGLE SWITCHES



3 amp rating. Chrome on-off plate and nuts.
Single pole, single throw 2/- each.

Single pole, double throw 2/6 each.

Double pole, double throw 3/- each.

CENTRE-OFF TOGGLE SWITCH



Heavy duty 10 amp double pole, double throw 4/6 each.

TOGGLE SWITCHES



Single pole on/off with plate. 1/9 each.

RENDAR MINIATURE TOGGLE SWITCH

Single pole changeover. 1A 250V 5/-



MINIATURE PRESS TO MAKE SWITCHES



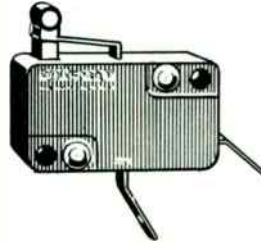
1/6 each.



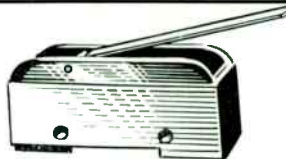
BULGIN ROTARY ON-OFF SWITCHES

Single pole 2/6

BONELLA MICRO SWITCHES

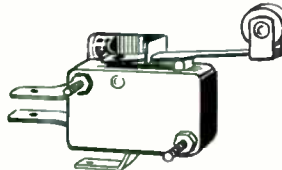


Size 1 3/8" x 1 1/4" x 3/8" inc. tags. Roller actuator. Rating 250V 5A. Available Single pole normally open 3/6; Single pole normally closed 3/6; Single pole changeover. 4/6



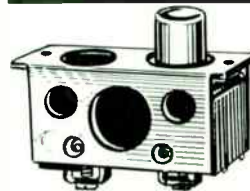
MICRO-SWITCH

Lever operated. Single-pole changeover. 5 amp. 250 V a.c. 4/6 each



MURGESS MICRO SWITCH

Roller/lever operated. Single-pole changeover. 5 amp. 250 V a.c. 4/6 each

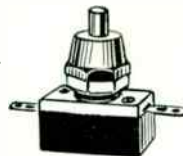


MICRO SWITCH

Press-button operated. Normally closed, press to break. 5 amp. 250 V a.c. 3/6 each

MINIATURE PUSH-BUTTON SWITCH S.P.S.T.

Push on—Push off. 1 amp. 250 V a.c. 2/6 each



PUSH-PULL SWITCH

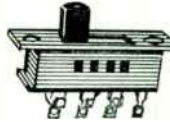
Panel mounting on-off. 3 amp. 250 V a.c. 2/6 each



SUB-MINIATURE SLIDE SWITCH



Single pole change-over. Overall dimensions including fixings 20mm x 13mm x 5mm 1/3 each

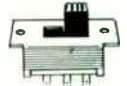


SLIDE SWITCH

1 pole, 4 position 3/- each.

EAGLE SS.3271

Sub-Miniature D.P.D.T. Slide Switch. 1/9 each



EAGLE SS.219

Miniature D.P.D.T. Slide Switch. 1/9 each



ROCKER SWITCH TYPE 3A1

S.S.P. On-off. 6 amp. 250 V a.c. Overall size: 36 x 22 mm. White rocker with black dot. 30 mm fixing holes. 3/- each



ROCKER SWITCH TYPE 16

D.P. changeover. 1 amp. 125 V a.c. Overall size: 42 x 30-5 mm. 35 mm fixing holes. Black rocker 3/- each



ROCKER SWITCH TYPE 25

S.P.S.T. On-off. 1 amp. 250 V a.c. Overall size: 36 x 29 mm. 30 mm fixing holes. Cream rocker. 2/6 each



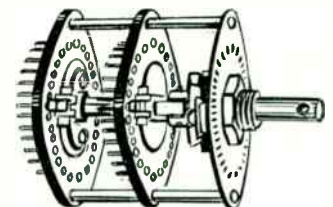
MINIATURE ROCKER SWITCH TYPE 29

S.P.S.T. On-off. 3 amp. 250 V a.c. Overall size 26 x 20-5 mm. 20 mm fixing holes. Cream rocker. 2/6 each



ILLUMINATED PRESS-BUTTON SWITCH MODEL 100

Push on—push off. Panel mounting. Overall size 26 x 58 mm. 6 amp. 250 V a.c. 12/6 each



PAINTON WINKLER SWITCH

Low-capacity contact switch. 2 bands, each band 1 pole. 16-position. 22/6 each

PAINTON WINKLER SWITCHES

Low resistance high quality switches with gold plated contacts.

1 pole 30 position 27/6
2 pole 7 position 27/6

REPANCO QUALITY ELECTRONIC COMPONENTS

COILS FOR CRYSTALS AND VALVE RECEIVERS

DRX1 Crystal Set M.W. and L.W. 3/6
DRR2 High gain dual range with reaction for valve sets. Quality Crystal Feeder Units. M.W. and L.W. 5/6
DRM3 High gain matched pair dual range extra selective for TRF Receivers M.W. and L.W. 12/6 pair.
SH4 Pair of dual range aerial and oscillator coils. Complete coil set for a two wave-band M.W. and L.W. Superhet Receiver. 12/6 pair.
 Coils wound on low polystyrene formers. Tuner 500pf. Terminations on colour coded tag ring. Circuits included.

HIGH PERMABILITY FERRITE SLAB AERIALS

Tuner 208pf. Circuits included.

FS3 Sensitive compact medium wave aerial for portable receivers and crystal feeder units 3" x 2 1/2" x 3 1/2". 9/6
FS4 Similar to above but for long wave. 9/6
FS30 Extra sensitive dual range aerial for M.W. and L.W. Superhet Receivers. 5 1/4" x 3 1/2" x 3 1/2". 12/6
FS48 Similar to above but single range Trawler Band 85/200 Meters. 10/-

R.F. AND I.F. COILS FOR VALVES

Short Wave Coils Tuned 500 pf



RA4 Aerial/Pink Meters 15-50 meters 5/-
RHF4 R.F./Gold 15-50 meters 5/-
RO4 Oscillator/Black 15-50 meters 5/-
RA3 Aerial/Green 70-230 meters 5/-
RHF3 R.F./Grey 70-230 meters 5/-
RO3 Oscillator/Brown 70-230 meters 5/-

MEDIUM/LONG WAVE Tuned 500 pf

RA2 Aerial/Orange 190-550 meters 5/-
RHF2 R.F./White 190-550 meters 5/-
RO2 Oscillator/Red 190-550 meters 5/-
RA1 Aerial/Yellow 800-2000 meters 5/-
RHF1 HF/Mauve 800-2000 meters 5/-
RO1 Oscillator/Blue 800-2000 meters 5/-

MSE I.F. Transformer (1 1/2" square 1 1/2" high) Preadigned to 465 kc/s. (Core tuned). 455-475 Kc/s 14/6 pair
 High "Q" Low Loss Adjustable Cores. Small size 1/2" former. Connections brought out to tag ring on top of coil. Suitable for Mains or Battery Superhet Receivers.

TRANSFORMERS FOR TRANSISTORS



TT11 Car Radio Driver, 2 watt (OC 72 or similar) 3-2:1 1 1/2" x 1 1/2" x 3/8" 12/6
TT12 Car Radio Output, 2 watt (OC 25 or similar) 3-75:1 2 1/2" x 1 1/2" x 3/8" 12/6
TT23A Driver Push Pull, 10 watt (OC 82-D or similar) 4-6:1 + 1 1 1/2" x 1 1/2" x 1 1/2" 12/6
TT24 Output Push Pull, 10 watt (OC 25 x 2 or similar) 2-6:1 2 1/4" x 2" x 2 1/4" 22/6
TT45* Miniature Push Pull Driver (OC 81—D or similar) 9:1 3/8" x 3/8" x 3/8" 7/6
TT46* Miniature Push Pull Output (OC 81 x 2 or similar) 8:1 3/8" x 3/8" x 3/8" 7/6
TT47* Miniature Push Pull Single Ended Driver to 35 ohms 4-5:1 + 1 3/8" x 3/8" x 3/8" 7/6
TT49* Miniature Interstage (OC 71 or similar) 4-5:1 3/8" x 3/8" x 3/8" 7/6
TT52* Miniature Matching 3 ohms to Transistor Input 1:20 3/8" x 3/8" x 3/8" 7/6
TT53* Miniature Matching Xtal Pick-up or Mic. Input 25:1 3/8" x 3/8" x 3/8" 7/6
TT55 Driver Push Pull, 1 watt (OC 82—D or similar) 5:1 1 1/8" x 3/8" x 3/8" 10/-
TT56 Output Push Pull, 1 watt to 3 ohms (OC 82 x 2) 8-2:1 12/6

INVERTER TRANSFORMERS

TT51/a Inverter, 15 watts 12 volts D.C. Input to 240v. 50 cycles (OC 25 or OC 35 x 2) 3" x 2 1/2" x 3/8" 35/-
TT57 Inverter, 40 watts 12 volts D.C. Input to 240v. 50 cycles (OC 35 or OC 28 x 2) 3 x 2 1/2" x 2 3/4" 57/6
TT58 Inverter. To operate 13-watt mains type fluorescent tube. (12 volts D.C. OC 35) 1 3/8" x 1 3/8" x 1 1/2" 17/6

CHOKES — L.F. IRON CORED

AF1 Choke 10H@O DC 3H@ 12 ma 750 1 3/8" x 3/8" x 1" 6/-
AF2* Choke Tapped 150 mh @ O D.C. 9 3/8" x 3/8" x 3/8" 6/-
AF3 Choke Tapped Special C.T. 120+ 120 1 7/8" x 1" x 1 1/8" 8/6

All Transformers packed complete with circuit diagram except carded items marked thus*.

R.F. AND I.F. COILS FOR TRANSISTORS

Short Wave Coils

XSA37 Aerial Blue/Green 16-36 meters 208 pf 8/6
XSF38 R.F. Blue/White 16-36 meters 208 pf 8/6
XOS36 Oscillator Blue/Red 16-36 meters 176 pf 8/6
XSA34 Aerial Red/Yellow 35/75 meters 208 pf 8/6
XSF35 R.F. Blue/Yellow 35-75 meters 208 pf 8/6
XOS36 Oscillator Blue/Red 35-75 meters 176 pf 8/6
XTA31 Aerial Blue/Mauve 75-170 meters 208 pf 8/6
XTF32 R.F. Blue/Black 75-170 meters 208 pf 8/6
XTO33 Oscillator Blue/Brown 75-170 meters 176 pf 8/6

MEDIUM/LONG WAVE

XMA41 Aerial Two/Yellow 190-550 meters 208 pf 8/6
XMF42 R.F. Two/Brown 190-550 meters 208 pf 8/6
XLA43 Aerial Two/White 800-2000 meters 208 pf 8/6
XLF44 R.F. Two/Mauve 800-2000 meters 208 pf 8/6
XO28 Oscillator Two/Black 190-2000 176+250 pf 8/6
 Aluminium Screening Cans, 1/2" x 1/2" x 3/4". Ferrite Pot Cores.
 Soldering Pins for P.C.B. mounting. Special grade Ferrite used on short wave range.
XT50/1 Double Tuned I.F. First Stage Blue/White 465-475 Kc/s Core Tuned 9/6
XT50/2 Double Tuned I.F. Second Stage Red/Green 465-475 Kc/s Core Tuned 9/6
XT50/3 Single Tuned I.F. Third Stage including diode and bypass condenser Brown 465-475 Kc/s Core Tuned 12/6
 These three transformers are designed to work together giving a total gain of 100 db and an overall sensitivity of 20 µv/m for 50 m/w output. Selectivity is of the high order of ±3.5 Kc/s at the 6db bandwidth points and attenuation approaching — 40 db at ±9 Kc/s. Can size 1" x 1/2" x 3/8" high. P.C.B. pins.

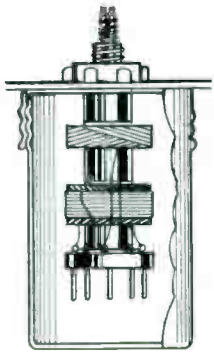
HIGH "Q" FERRITE R.F. CHOKES

Wound on Ferrite core 3/8" long with wire ends

CH5 1-5 Millihenries 3/-
CH1 2-5 " 3/-
CH2 5-0 " 3/6
CH3 7-5 " 3/6
CH4 10 " 4/-
CH6 5 Microhenries 3/-

EACH PACKED COMPLETE WITH CIRCUIT DIAGRAM

DENCO TRANSISTOR TUNING COILS



- ★ Coils for transistor superhets and converters, with or without an R.F. stage and using 465 kc/ or 1.6 mc/s I.F.
- ★ Each coil can be used for chassis mounting or plugging into a standard Noval (B9A) valveholder.
- ★ Formers are moulded in coloured low-loss polystyrene for easy identification.
- ★ Each coil is packed in an aluminium container which may be used as a screening can.
- ★ Brass threaded adjustable iron-dust cores.

The following colour code identifies the coils:

- BLUE Aerial coil with base input winding.
- YELLOW Interstage R.F. coil with couplings.
- RED Oscillator coil for 465 kc/s I.F.
- WHITE Oscillator coil for 1.6 mc/s I.F.

6/- each

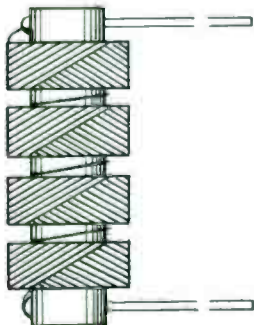
The following table gives the coverage obtained with Transistor Coils using the recommended 300 pF Tuning Condenser.

Range	1T	2T	3T	4T	5T
Mc/s	0.15/0.4	0.515/1.545	1.67/5.3	5/15	10.3/31.5
Metres	2000/750	580/194	180/57	60/20	28/9.5

★ Complete technical information on the coils and full instructions for their use is given in technical Bulletin DTB.4. Price 2/-.

The following I.F. Transformers are recommended for use with these coils. The aluminium screening can of each I.F. Transformer measures $\frac{17}{8}$ " square \times $\frac{11}{8}$ " high and is suitable for either chassis or printed-circuit board mounting.

- IFT.13/465 kc/s I.F.T. 8/-
- IFT.14/465 kc/s Last I.F.T. 8/-
- IFT.16/1.6 mc/s I.F.T. 8/-
- IFT.17/1.6 mc/s Last I.F.T. 8/-



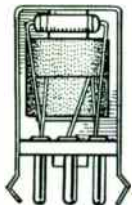
DENCO R.F. CHOKES

- RFC5** 2.6 mH 100 mA res 20 Ω 2/60 mc/s **5/9**
- RFC7** 19 mH 60 mA res 135 Ω .2/60 mc/s **6/-**
- RFC8** 4.85 μ H 100 mA res .5 Ω 20 mc/s up. **5/-**
- RFC9** 2.6 mH 250 mA res 9.3 Ω 1.7/60 mc/s **9/4**
- RFC10** 500 kc/s — 50 mc/s **8/4**

**COMPONENTS
A
SPECIALITY !**

**Let us quote for all
your requirements**

DENCO TRANSISTOR RECEIVER COMPONENTS



For Printed-Circuit Board or Chassis Mounting.

IFT.13 Miniature I.F. Transformer 8/- each

These transformers are wound in ferrite pot-cores with an adjustable core for tuning. The aluminium screening can measures $\frac{3}{8}$ " square \times $\frac{1}{8}$ " high and is provided with two fixing clips. Nominal frequency: 470 kc/s. Q=110

FT.14 Miniature Last I.F. Transformer. 8/- each

Aluminium screening can measures $\frac{3}{8}$ " square \times $\frac{1}{8}$ " high. Nominal frequency: 470 kc/s. Q=130

IFT.16/1.6 mc/s Miniature I.F. Transformer. 8/- each

A miniature 1.6 mc/s I.F. Transformer complete with capacitor and adjustable ferrite-core and enclosed in an aluminium screening can measuring $\frac{3}{8}$ " square \times $\frac{1}{8}$ " high with two fixing clips. Nominal frequency: 1.6 mc/s.

FT.17/1.6 mc/s Miniature Last I.F. Transformer. 8/- each

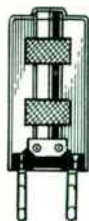
Aluminium screening can measures $\frac{3}{8}$ " square \times $\frac{1}{8}$ " high. Nominal frequency: 1.6 mc/s.

FT.18/465 kc/s or 1.6 mc/s Double Tuned Transformer. 10/6 each

Aluminium screening can measures $\frac{3}{8}$ " square \times $1\frac{1}{2}$ " high.

DENCO I.F. TRANSFORMER TYPE IFT.II

465 kc/s 1.6 and 10.7 mc/s



Miniature I.F. Transformers available for either 465 kc/s, 1.6 mc/s or 10.7 mc/s giving excellent performance at low cost. The coils are Litz wound and are permeability tuned with high grade 'Neosid' iron dust cores. Coupling is critically adjusted to give maximum gain with good selectivity. Ideal for use with miniature B9A or B7G based valves.

IFT.11/465: Q at 465 kc/s—75. IFT.11/1.6 mc/s —100. IFT.11/10.7 mc/s—90.

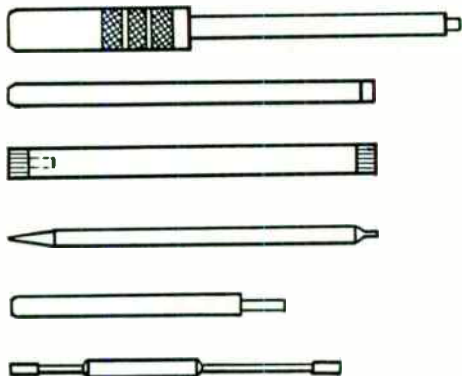
Fixing: Two 6B.A. screws provided. Screening can: Extruded aluminium $1\frac{1}{8}$ " \times $\frac{3}{8}$ " square.

Retail Price: IFT.11/465 and 1.6 10/- each. IFT.11/10.7 10/- each.

IFT.11/465 kc/s Centre Tapped 13/-

TRIMMING TOOLS

Useful tools for Receiver alignment made from Polystyrene and an absolute minimum of metal.



TT.1 Is a general purpose screwdriver type particularly suitable for Maxi-Q Coils, Coil Turrets, I.F. Transformers, etc. 2/6

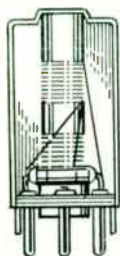
TT.2/6BA—TT.2/8BA Suitable for flattened end 6BA or 8BA brass stemmed cores. 2/6

TT.3 Manufactured from Ebonite and is for use with Philips type Trimmers 2/6

TT.4 Manufactured from Ebonite for use on Neosid 6 and 8 mm iron-dust cores used on PDT.1, IFT.11, BFO.2, etc. 2/6

TT.5 For use on Neosid 4 mm iron-dust cores used on IFT.13, IFT.14, TOC.1, etc. 2/6

TT.6 For hexagon cored screw cores 2/6



DENCO TRANSISTORIZED FM RATIO DISCRIMINATOR & IF TRANSFORMERS

TYPE RDT.2 & IFT.15

IF Transformer, IFT.15 A 10.7 Mc/s double tuned transformer with tapped secondary and primary windings. Wound on polystyrene former complete with iron-dust tuning cores and sub-miniature polystyrene-foil capacitors. Completely enclosed in an aluminium screening can $\frac{7}{8}$ " high $\times \frac{17}{32}$ " square with two fixing clips. Termination is made to base mounted silver plated pins which are ideal for either printed circuit board or normal metal chassis mounting. Bandwidth of single transformer at -6db is approx. 250 kc/s. Unloaded 'Q' of winding 70 Price 11/- Each

Ratio Discriminator Transformer, RDT.2. A sub-miniature 10.7 mc/s transformer for use in ratio discriminator type circuits. Secondary winding is of bifilar construction. Dimensions as IFT. 15. Peak separation approx. 220 kc/s. Price 12/- Each

DENCO RDT.1. Ratio Discriminator Transformer 10.7 mc/s
1" sq. $\times 2\frac{1}{2}$ " bifilar wound for valve circuits 12/6

DENCO PDT.1. Phase Discriminator 10.7 mc/s. 11/-

DENCO IFT.12. 85 kc/s narrow band IF Transformer 1" sq. $\times 2\frac{1}{2}$ ". For double superhet communication receivers 16/-

DENCO BFO.2. Beat frequency oscillator coils $\frac{7}{8}$ " sq. $\times 1\frac{3}{8}$ ". Available 85 kc/s; 465 kc/s; 1.6 mc/s 10/- Each



Ferrite Rod Aerials

FRA.1—Dual wave for 300pF. tuning 12/6. Suitable oscillator coils are "miniature dual purpose" range 1 and range 2 red 6/- Each

FRA.2—Dual wave for 500pF. tuning 12/6. Suitable oscillator coils are F/LW and F/MW 6/- Each

Litz wound M.W. coils and wavewound L.W. coils wound on high permeability ferromagnetic rods $7\frac{3}{4}$ " $\times \frac{1}{8}$ " dia. No separate aerial coil or external aerial is required. Inductance is easily adjusted for alignment. Gives high selectivity with consequent reduction in second channel and adjacent channel whistles. Ideal for portable receivers. Supplied complete with insulated mounting brackets. Send 6d. in stamps for leaflet giving suitable circuits and layout with full application data.

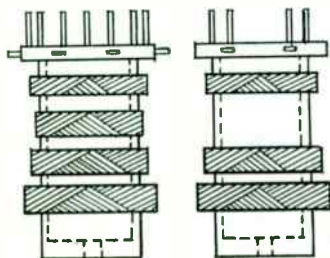
Nominal inductance of Ferrite rod coils:

FRA.1 Medium wave 271 μ H.

Long wave 2350 μ H.

FRA.2 160 μ H.

2100 μ H.



TWO WAVEBAND TRF. COILS

These long and medium waveband TRF. coils are an improvement to our already well known 'C' coils. If you wish to improve the performance of the 'midget three valve a.c. mains receiver' by S.W. amos ('Wireless World' February 1950) we strongly recommend the use of these coils. Price 10/6 per Pair

Detector with reaction Aerial

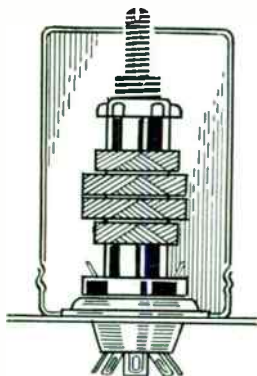
The following points are worth noting:

- * Wound on polystyrene colour coded formers—C.2 RF. aerial transformer, colour coded blue—C.3 detector with reaction, colour coded green.
- * Litz windings on long waveband. * Single 4 BA. hole fixing.
- * Coverage: Long wave 800/2000 metres. Medium wave 190/550 metres. With .0005 μ F tuning condenser.
- * Windings are terminated to tinned copper spills which ensure easy soldering.
- * The necessary connection diagram and recommended circuit are included.

C.4 SUMMER PORTABLE COIL

(Not illustrated)

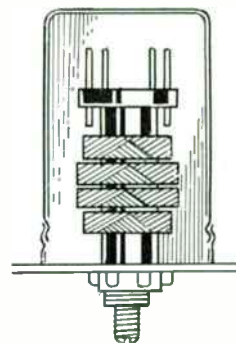
A medium and long waveband coil with coupling and reaction for aerial and detector TRF. circuits. This coil is wound on a polystyrene former and is similar in appearance to C.3 TRF. coil. Connection diagram supplied with each coil. Price 5/6



Plug-In Application

DENCO MINIATURE DUAL PURPOSE COILS

Every coil is provided in an airtight aluminium container the size of which has been calculated to enable you to use it as a screening can for the coil.



Chassis Mounting Application

- ★ Each coil can be used for either chassis mounting or plugging into a standard Noval (9-pin) valveholder.
- ★ Litz windings where required on L.F. ranges
- ★ Complete range for Superhet or Sraight receivers covering approx. 150 kc/s – 78 mc/s.
- ★ The former and base are completely moulded in coloured polystyrene.
- ★ The following colour code identifies the coils:

BLUE: Signal grid coil with serial coupling winding	..	..	..	..	..	..	..	..	..	..	..	6/-
YELLOW: Signal grid coil with inter-valve coupling winding	..	..	..	..	..	..	..	..	..	..	..	6/-
GREEN: Grid coil with reaction and coupling windings (6-pin). These coils are available for ranges 1-5 only	..	..	..	..	..	..	..	..	..	..	..	6/6
RED: Superhet oscillator for 465 kc/s IF.	..	..	..	..	..	..	..	..	..	..	..	6/-
WHITE: Superhet oscillator for 1.6 mc/s IF.	..	..	..	..	..	..	..	..	..	..	..	6/-

(Note:—Range 6 and 7 Red can be used for various IF.'s no white coils are made for these ranges).

- ★ Complete technical information on the coils and full instructions for their use is given in TECHNICAL BULLETIN DTB.4 2/6
- ★ The following table gives an indication of the coverage obtained with Miniature Dual Purpose Coils using the recommended 300 pf tuning condenser (except on Ranges 6 and 7; 50 pf).

Range	1	2	3	4	5	6	7
Mc/s.	.150/.400	.515/1.545	1.67/5.3	5/15	10.5/31.5	30.50	45/78
Metres	2000/750	580/194	180/57	60/20	28/9.5	10/6	6.6/3.8

When using a 1.6 mc/s IF. Range 1 covers .175/.525 mc/s. 1700/570m.

MINIATURE DUAL PURPOSE COILS for use with 500pF TUNING CONDENSER

Range 1/500—150—350 kc/s. Range 2/500—530—1610 kc/s. Range 3/500—6—18.5 mc/s.

BLUE: Grid coil with aerial coupling winding. For RF. or Mixer	..	..	..	..	..	..	..	..	..	6/-
YELLOW: Grid coil with coupling for reaction or RF. anode	..	..	..	..	..	..	..	..	..	6/-
RED: Superhet oscillator for 465 kc/s IF. only	..	..	..	..	..	..	..	..	..	6/-

INSTRUMENT CASES



New aluminium cases of attractive design.

Front and side panels sprayed in green—top, bottom and rear panel covered in black vinyl. Front, rear and both side panels removable for easy access. Fitted with four rubber feet.

Case sizes:	Price
6-5" L x 4" W x 4" H +	20/-
6-5" L x 4" W x 6" H +	24/-
6-5" L x 5" W x 4" H +	21/8
6-5" L x 5" W x 6" H +	28/9
8-5" L x 4" W x 4" H +	24/-
8-5" L x 4" W x 6" H +	32/-
10-5" L x 8" W x 4" H +	55/8

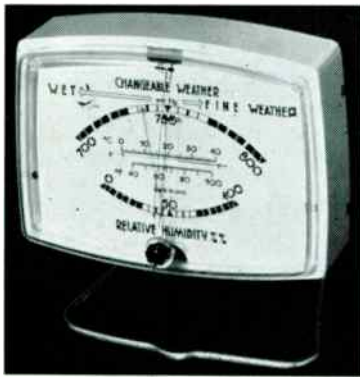
Other sizes can be supplied in quantity—Enquiries invited.



PLUG-IN LOW LOSS COIL FORMERS

To fit standard international octal valve base. Winding length 49mm. Dia. 33mm. 2/6 Each

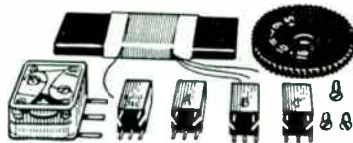
RUSSIAN WEATHER STATION



Three-in-one weather monitor incorporating barometer, thermometer and humidity meter.

Ranges:
Barometric pressure: 700–800 mm of mercury
Temperature: 0–40°C and 40–100°F
Relative humidity: 0–100%
Cream-coloured tough plastic body and unbreakable plastic window. Will stand on shelf or can be wall mounted.

PRICE: 47/6 Carr. 4/-



EAGLE H.402 SUB-MINIATURE TRANSISTOR RADIO COMPONENT KIT

Includes 3 IF transformers, 1 oscillator coil, variable tuning condenser, ferrite aerial and tuning dial. With circuit diagram and parts list to build a receiver.

25/6



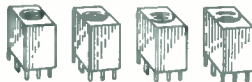
CP.110 11-PIECE CHASSIS PUNCH SET

Carefully machined, top grade steel. Contains the most popular sized punches, 1/2", 3/8", 3/4", 1" and 1 1/2", complete with gripper and accessories housed in a carrying case with handle. 55/-



MIDGET FERRITE POT CORE AND FORMER

2/6 complete



Set of miniature 455 kHz IF transformers and oscillator coil. Ideal for replacement for Japanese 6-transistor radios, etc. 7/6 Set of 4

DIECAST BOXES



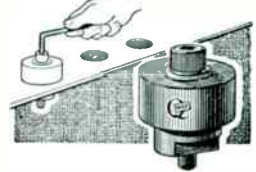
Available in 9 sizes:

4 1/2" x 3 1/2" x 1 3/4"	8/6
4 3/4" x 3 3/4" x 2 3/4"	11/6
4 3/4" x 3 3/4" x 3 3/4"	15/6
6 3/4" x 4 3/4" x 2 3/4"	15/-
6 3/4" x 4 3/4" x 4 3/4"	24/-
8 3/4" x 5 3/4" x 2 3/4"	20/-
8 3/4" x 5 3/4" x 4 3/4"	27/-
10 3/4" x 6 3/4" x 2 3/4"	24/6

Aluminium alloy diecast boxes with the unique advantage of internal slots for dividing parts, e.g. screens, printed circuit boards, veroboard.

'Q MAX' CHASSIS CUTTERS

For all Sheet Metal and Alloys up to 16 gauge mild steel.



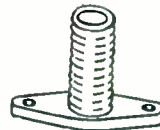
Size	Price	Key	Size	Price	Key
1 3/8"	13/7	10d.	1 7/8"	21/-	1/8
1 1/2"	15/-		2 1/8"	21/-	
1 5/8"	16/7		2 1/4"	22/-	
1 3/4"	16/7	Key	2 3/8"	25/-	2/5
1 7/8"	17/7		2 1/2"	25/-	
1 5/8"	17/6	1/-	2 3/4"	30/-	Key
1 3/4"	18/-		2 7/8"	41/-	
1 3/8"	18/-	Key	2 3/4"	46/-	3/7
1 7/8"	19/7		2 1/2"	60/-	
1 3/8"	19/7	1/8	2 3/4"	82/-	Key
1 3/8"	19/7		2 3/4"	105/-	
1 3/8"	20/7		3"	162/-	

(Sizes are in inches diameter)

CORE FORMERS

Polystyrene formers.

Size: 1" wide x 0.87" high x 0.27" deep
9d. each

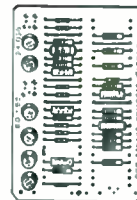


Slings to fit 3d. each

PRINTED CIRCUITS

Five assorted printed circuit boards with transistors, diodes, resistors, condensers, etc. Guaranteed minimum 40 transistors. Ideal for experimenters.

10 Boards for 10/-



ALUMINIUM CHASSIS



Undrilled four sided chassis with reinforced corners.

6" x 4" x 2 1/4"	..	..	..	7/-
7 1/2" x 5 1/2" x 2 1/4"	..	..	..	8/6
10" x 7 1/2" x 2 1/4"	..	..	..	11/6
11 1/2" x 7 1/2" x 2 1/4"	..	..	..	13/6
13 1/2" x 9" x 2 1/4"	..	..	..	15/6
12" x 4" x 2 1/4"	..	..	..	11/-

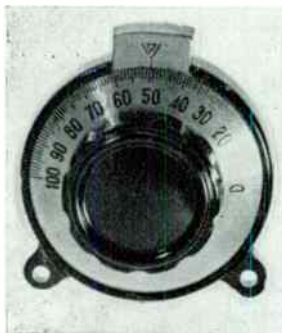
OSMOR COILS

HIGH 'Q' ★ LOW LOSS AND ADJUSTABLE CORES ★ FOR ALL MODERN CIRCUITS ★ EXTRA SELECTIVITY
 ONE HOLE QUICK FIXING ★ SMALL SIZE ★ ALL PURPOSES ★ CIRCUITS SUPPLIED ★
 MAINS OR BATTERY SUPERHETS: I.F. 450 $\frac{1}{2}$ 480 kc/s.

Coil No.	Waveband (Metres)	Stage	Colour Code		Coupling	(Ind. μ H)		Diagram Refs.	Fixed Cond. Value	Price Each
			Foot	Body		Min.	Max.			
QA.1 QHF.1 QO.1	S.W. 13-35	Aerial H.F. Osc.	Blue Green Red	Purple " "	Aperiodic " "	.6 .6 .5	1.1 1.1 .7	A & A1 A & A2 A & A3	0.1 μ F. 0.1 μ F. 4500 pF.	4/- 4/- 4/-
QA.2 QHF.2 QO.2	S.W. 15-50	Aerial H.F. Osc.	Blue Green Red	Yellow " "	Aperiodic " "	1.4 1.4 1.1	1.9 1.9 1.6	A & A1 A & A2 A & A3	0.1 μ F. 0.1 μ F. 4500 pF.	4/- 4/- 4/-
QA.3 QHF.3 QO.3	S.W. 35-120	Aerial H.F. Osc.	Blue Green Red	Green " "	Aperiodic " "	3 3 2.5	5 5 4.8	A & A1 A & A2 A & A3	0.1 μ F. 0.1 μ F. 4500 pF.	4/- 4/- 4/-
QA.4 QHF.4 QO.4	Shipping 70-230	Aerial H.F. Osc.	Blue Green Red	Black " "	Aperiodic " "	17 17 10	42 42 22	A & A1 A & A2 A & A3	0.1 μ F. 0.1 μ F. 2500 pF.	4/- 4/- 4/-
QA.5 QHF.5 QO.5	M.W. 190-520	Aerial H.F. Osc.	Blue Green Red	Blue " "	Bottom-end Cond'ser " " " " " "	130 130 70	215 215 130	B & B1 B & B2 B & B3	2500 pF. 2500 pF. 470 pF.	4/- 4/- 4/-
QA.6 QHF.6 QO.6	L.W. 800-2000	Aerial H.F. Osc.	Blue Green Red	Red " "	Bottom-end Cond'ser " " " " " "	1600 1600 400	2600 2600 720	B & B1 B & B2 B & B3	2500 pF. 2500 pF. 150 pF.	4/- 4/- 4/-
QA.8 QHF.8 QO.8	M.W. 190-560	Aerial H.F. Osc.	Blue Green Red	Brown " "	Aperiodic " "	100 100 65	175 175 120	A & A1 A & A2 A & A3	0.1 μ F. 0.1 μ F. 470 pF.	4/- 4/- 4/-
QA.9 QHF.9 QO.9	L.W. 800-2000	Aerial H.F. Osc.	Blue Green Red	Clear " "	Aperiodic " "	2000 2000 400	2600 2600 720	A & A1 A & A2 A & A3	0.1 μ F. 0.1 μ F. 150 pF.	4/- 4/- 4/-

PRECISION VERNIER DIALS

8:1 ratio with heavy black Bakelite base and nickel-silver dial plates, with deeply etched, clearly eligible scales. Moulded knob with fluted grip. Internal parts of phosphor bronze and brass for long life dependability. No back lash, positive logging can be read to 1/10th of a degree. Planetary drive ratio 8:1 in 180°, counter-clockwise. Takes $\frac{1}{8}$ " shaft.



T.501	1 $\frac{1}{2}$ " diameter	...	...	...	8/6
T.502	2" diameter	...	...	...	10/-
T.503	3" diameter	...	...	...	12/6

AR88 RECEIVER REPLACEMENT MAINS TRANSFORMERS

Available brand new and boxed.

59/6 EACH Carr. 6/-

FREQUENCY CRYSTALS

Many assorted crystals available in our shops for personal shoppers only.

FROM **2/6** EACH

FREQUENCY CRYSTALS

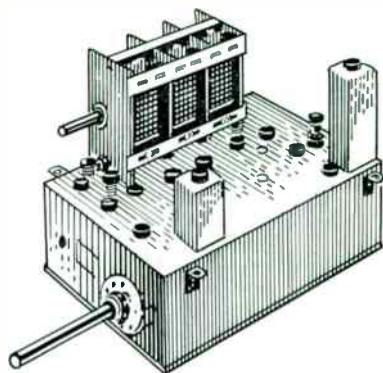
100 kHz and 1 MHz. Dual Crystal 10X type as used in Class D wavemeters. New 22/6 each
 100 kHz. HC-6U type 39/6 each
 AR.88 L.F. Crystals 10/- each

ELECTRONIQUES TRANSISTOR COILPAX Mk II

MODELS HB 166T and GC 166T

Both models have an IF aerial filter included in the input circuit. The 1st IF transformer is also included on the chassis and has a suitable output impedance tap to match into either the antenna input of the receiver, if used as a converter, or into the following transistor 1st IF amplifier stage or our 1f620 MHz IF amplifier module IFA/1.6/SSB. Physical layout suits the Eddystone Type 898 dial, or our SMD2. Chassis size nominally $6\frac{3}{4}'' \times 4\frac{1}{2}'' \times 2''$ deep + 3'' above chassis for gang. Four fixing feet adjustable and reversible at back and sides. Low loss Trolex switching used throughout with all coils not in use shorted out. Lowest frequency band is in maximum clockwise position of the bandswitch. The 1st RF transistor has protection against swamp signals by two diodes placed across the input circuit. RF gain can be controlled by AGC action from the IF strip, and also manually as shown in the circuits.

A 12-volt d.c. supply should be used, and the Zener feed resistor has been suitably adjusted in the circuit. The chassis is positive and correct polarity must be observed otherwise the transistors will be destroyed!



HAMBANDS MODEL HB166T (MK II)

(6 BANDS 160m to 10m)

Range	Hamband	Frequency coverage
1	10 Metres	28.0-30.0 MHz
2	15 Metres	21.0-21.5 MHz
3	20 Metres	14.0-14.4 MHz
4	40 Metres	7.0- 7.3 MHz
5	80 Metres	3.5- 4.0 MHz
6	160 Metres	1.8- 2.0 MHz

Intermediate Frequency: 1.620 MHz.
Antenna Input: 75 ohms (LZ) unbalanced.
Tuning Capacitor: Three-gang silver-plated 6-20 pF.

Zener stabilized.
High gain low noise RF stage.
Mixer stage.
Oscillator stage.
Oscillator buffer-emitter follower.
Die-cast aluminium chassis.
RF gain and AGC facilities.
NPN silicon transistors.

£19 7 0 P. & P. 6/-

GENERAL COVERAGE MODEL GC166T (MK II)

(Medium wave and 5 short wave bands)

Range	Waveband (metres)	Frequency coverage	Hambands covered
MW	545-200	550 kHz to 1.5 MHz	—
SW2	75- 37.6	4.0 MHz to 8.0 MHz	40 Metres
SW3	40- 20	7.5 MHz to 15.0 MHz	20 Metres
SW4	21.4- 13.7	14.0 MHz to 22.0 MHz	15 Metres
SW5	15- 10	20.0 MHz to 30.0 MHz	10 Metres

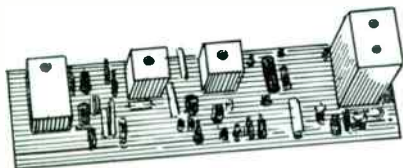
Intermediate Frequency: 1.620 MHz.
Antenna Input: 600 ohms MZ for random length aerials.
Tuning Capacitor: Three-gang silver-plated 265 pF swing (SLF law).
Mixer stage.
Oscillator stage.
Oscillator buffer—emitter follower.
Die-cast aluminium chassis.
RF gain and AGC facilities.
NPN silicon transistors.

£19 7 0 P. & P. 6/-

TRANSISTOR IF AMPLIFIER MODULES FOR 455 kHz AND 1.620 MHz

PROFESSIONAL GRADE—WITH INPUT FILTERS

Ideal for use with our Transistor Coilpacks . . . the best basis for your own receiver designs



These superior IF modules using silicon epitaxial planar transistors have been developed to meet the requirements of receiver constructors wishing to achieve professional standards at reasonable cost.

All three models also incorporate one of our new very high stability BFO/CIO

modules for CW or SSB reception. Zener stabilised feed is included, making for very high overall stability.

Plus new Mark II additional features on the SSB versions.

S meter tuning circuit built-in—functions from AGC line.

Additional product detector for SSB/CW as well as AM detector.

Sensitivity now produces 1,000 mV ± 3 dB audio output across 5-ohm load for 10 μ V input.

AGC control now less than 6 dB increase in output for input change of 80 dB above 200 μ V.

BFO stability now 0.002% per °C.

Model IFA/455/SSB Mark II

Incorporates a half lattice Xtal filter having a bandwidth of approximately 2 kHz and a skirt selectivity of approximately 5 kHz. Centre frequency = 455 kHz. £14 19 6

Model/IFA 1.6/SSB Mark II

Similar specification to IFA/455/SSB. Particularly suitable for use with either of our transistorised Coilpacks. The input transformer matches into the Coilpacks. Centre frequency = 1.620 kHz. £14 19 6

Model IFA/455/AM Mark II

Incorporates a Brush Clewite input filter giving an overall bandwidth of approximately 8 kHz at 6 dB down and a skirt selectivity of approximately 20 kHz. Centre frequency = 455 kHz. £15 19 6



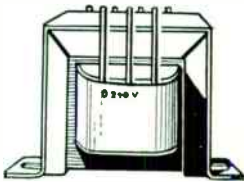
EAGLE Sub-miniature 240 V a.c. Mains Transformers. For power supplies to transistor circuits. Clamp construction.

MT.6 Output 6-0-6 volts r.m.s. 100 mA.
MT.12 Output 12-0-12 volts r.m.s. 50 mA. 12/6 Each type



EAGLE LT.44 Miniature driver transformer. Primary 20K, Secondary 1K, Ratio 5:1. 5/-

EAGLE LT.700 Miniature output transformer. Primary 1-2K, Secondary 5 ohm 200 mW. 5/-

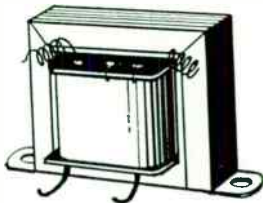


EAGLE range of miniature mains transformers with two independent secondary windings.

MT.280
0-6 V, 0-6 V RMS 280 mA. 17/6

MT.150
0-12, 0-12 V RMS 150 mA. 17/6

MT.100
0-24, 0-24 V RMS 100 mA. 17/6



DOUGLAS L.T. TRANSFORMERS

200/250 V primary.
 1. Sec. 9-0-9 V. 100 mA. 15/-
 2. Sec. 12-0-12 V. 100 mA. 15/-

OSMABET L.T. TRANSFORMER

Primary 220/240 V.
 Sec. 20-0-20 V. 150 mA. 22/6

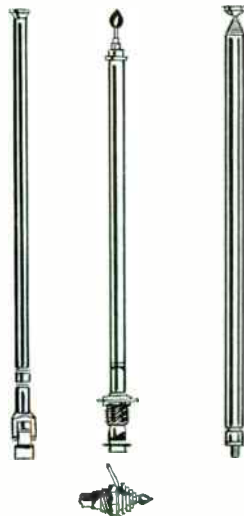
TRANSISTOR TRANSFORMERS

Modified 'Clamp' construction with 'twist' type mounting lugs to suit printed circuit-boards. Fully vacuum varnish impregnated.



Code No.	Function	Application	Ratio and Dimensions	Price each
T/T1	Driver	OC71 into 2xOC72 2 mW	1 : 1 C.T. Sec. Dimensions: W. .75", H. .62", D. .62", Wt. 3/4 oz.	10/6
T/T2	Output	2xOC72 'Class B' into 3-ohm speech coil (200 mW)	6:6 : 1 C.T. Prim. Dimensions: W. .75", H. .62", D. .62", Wt. 3/4 oz.	15/-
T/T3	Driver	OC71 into 2xOC72 Single ended pp. (5 mW)	3:6 : 1 + 1 Split Sec. Dimensions: W. 1.06", H. .78", D. .81", Wt. 1 oz.	13/6
T/T4	Output	Single OC72 'Class A' into 3-ohm speech coil (50 mW)	9:2 : 1 Dimensions: W. .75", H. .62", D. .62", Wt. 3/4 oz.	12/6
T/T5	Driver	OC81D into 2xOC81 Single ended p.p. (2 mW)	5:5 : 1 + 1 Split Sec. Dimensions: W. 1.06", H. .78", D. .81", Wt. 1 oz.	12/-
T/T6	Driver	OC81D into 2xOC81 (2 mW)	2:8 : C.T. Sec. Dimensions: W. 1.06", H. .78", D. .81", Wt. 1 1/4 oz.	13/6
T/T7	Output	2xOC81 'Class B' into 3-ohm speech (500 mW)	9:2 : 1 C.T. Prim. Dimensions: W. 1.44", H. 1.16", D. .91", Wt. 2 1/2 oz.	14/6

TELESCOPIC AERIALS



EAGLE TA.627
 Disappearing swivel, 8 section. 360° horizontal rotation, 180° vertical rotation, complete with fixing assembly. Collapsed: 6"; Extended: 27" 13/6



EAGLE TA.632
 Disappearing, swivel, 10 section 360° horizontal rotation, 180° vertical rotation, complete with fixing assembly. Collapsed: 6" Extended: 32" 13/6

The above three antennas meet most requirements for replacements in transistor radio sets, and for the constructor. Chrome plated.

S.3100 Eight-section, 48" to 7 1/4". Tapped base. 7/6

S.3101 Six-section, 29" to 6 1/2". Spring-loaded swivel base allows 180° rotation. Strong under-hole nut fitting. Removal of the circlip converts this antenna into a fully retractable model. 10/-

S.3102 Five-section, 22 3/4" to 6 3/8". Spring-loaded base has 180° rotation and side screw fitting. 9/-

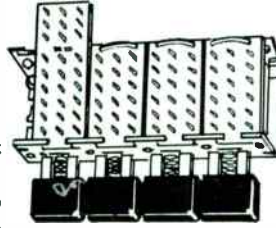


TA.4, 4 1/2"-24" 4/6
TA.5, 8"-40 1/2" 6/-
TA.10, 6"-46" 12/-

RADIO PRESS-BUTTON UNITS

Miniature Type

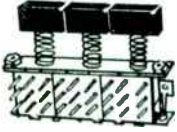
- 2 Button each 3-pole c/o 3/6
- 3 Button each 3 pole c/o 4/6
- 3 Button each 4-pole c/o 5/6



Standard Size

These have a variety of contact arrangements.

- 4 Button 5/6; 6 Button 5/6
- 7 Button 5/6; 8 Button 6/6



EAGLE K.12W Sub-miniature 5K ohm Edgewise volume control with switch. White knob. 3/6



EAGLE K.416 Miniature edgewise 5K ohm volume control, with switch and knob. 3/6



STANDARD SIZE EDGEWISE VOLUME CONTROLS

Available 100K, 500K, 1 Meg, 1-3 Meg. 1/- Each

FERRITE RODS

- 4" x 3/8" 1/3
- 4 1/2" x 3/8" 1/3
- 5" x 3/8" 1/6
- 5" x 3/4" 1/6
- 5 3/4" x 3/8" 1/6
- 6" x 3/8" 1/6
- 6" x 1/2" 2/6
- 7" x 3/8" 1/9
- 8" x 3/8" 2/-



EAGLE K.12B Sub-miniature 5K ohm Edgewise volume control with switch. White or Black knob. 3/6

EAGLE

K.20 Miniature 5K ohm volume control with switch, spindle nut and washer. 4/-



TUNING DIAL

4" diameter perspex tuning knob with separate calibrated dial for long and medium wave. 1/4" spindle. 2/- each



PERSPEX TRANSISTOR TUNING DIAL WITH SCALE

Calibrated M.W. and L.W. 2 1/2" diameter 2/6 Each

JACKSON

No. 6/36 Drive



Compact Dial incorporating 6-1 and 36-1 ratio reduction drive in one coaxial shaft. Spare scale included for individual calibration. 4 3/8" x 3 1/4" fixing centres.

Price 22/6



- 1/4" brass spindle coupling 1/-
- 1/4" brass spindle extensions 1/4

12" PYREX AERIAL INSULATORS



10/- EACH

EAGLE TP.26G

2 3/4" 75 ohm Transistor Radio Speaker.

12/6



1/4" flexible spindle couplers 1/3 Each

455 Kc/s CRYSTALS

Wire ended as used in AR.88D Receivers Brand New. 15/-

Non-stretch drive cord 6d. Yard

Small condenser drive pulleys 2d. Each

COMPONENTS A SPECIALITY !

Let us quote for all your requirements

VARIABLE CONDENSERS

AIR SPACED

15 pf+15 pf	2 Gang	Ex-A.M.	..	..	..	1/6
15 pf	Single gang	Type T.	..	..	..	2/-
25 pf	Single gang	Type T.	..	..	..	2/-
100+100 pf	Twin gang	Type 00	..	..	..	4/6
208 +176 pf	2 gang with screen and trimmers	Type 00	..	..	..	9/6
365 pf	Single gang	Type 00	..	..	..	9/6
365+365 pf	2 gang	Type 0	..	..	..	10/6
350+350 pf	2 gang	Type 0	..	..	..	4/6
500+500 pf	2 gang	Type 0	..	..	..	6/6
500+500+500 p	3 gang	Type E	..	..	..	17/6
310+310+310 pf	3 gang	Type E	..	..	..	17/6



Type 'F'



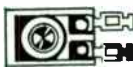
Type 'N'



Type 'G'



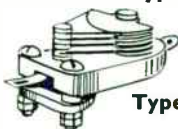
Type 'B'



Type 'T'



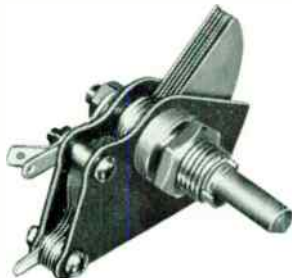
Type 'C'



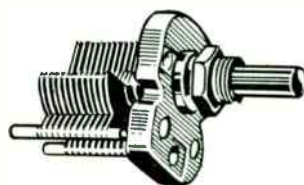
Type 'H'



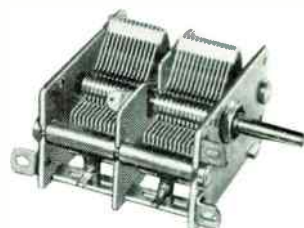
Type 'A'



Type 'D'



Type 'T'



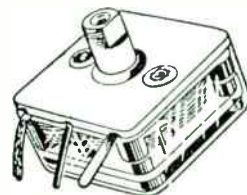
Type 'E'



Type '00'



Type '0'



Type 'I'



Type 'P'

Imported Miniature Air Spaced
365 pF Twin gang, Type '0' 7/6

Japanese 2-gang Variable Condenser
Size: 3/4" square x 1/2" deep. Replacement for cheap imported radios. Type 'I' 4/6 each

Miniature Compression Trimmer
Available 8-50 pf or 3-12 pf. Type 'B' 1/- Each

Solid Dielectric Variable J.B. Dielcon — Type D
100 pf 6/6 300 pf 6/6 500 pf 6/6

Miniature 250 pf plastic tuning condenser.
1/4" shaft - type P. 3/6

TRIMMER CONDENSER

Cydon Trimmer Condensers
2-hole panel mounting, knurled knob for adjustment. Available in 150 pf or 450 pf.
Type 'F' 6d. Each

Sub-miniature Air-spaced Trimmer
10 pf capacity. Type 'G' 1/- Each

Air-spaced Trimmer
30 pf. Fully insulated fixing from chassis.
Type 'H' 1/- Each

Philips Concentric Trimmers.
6-60 pF, Type 'N' 1/6 Each

Twin Trimmer Block - Type C
60 pf + 120 pf 1/- Each

Air Spaced Trimmer - Type A
2-22 pf 1/- Each
3-30 pf 1/- Each

Mica Compression Trimmers - Type T
Single 30 pf .. 9d. Single 50 pf .. 9d.
Single 100 pf .. 1/- Single 1250 pf 1/-
Twin 50 pf bank 1/- 4x50 pf bank 1/-

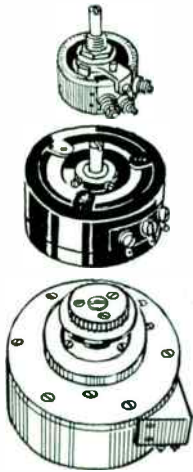
ERIE CERAMIC TRIMMERS

Available

- 3-20 pF
- 9-12 pF
- 8- 9 pF
- 5- 5 pF
- 4-10 pF

}

1/- Each



P. F. FOX WIREWOUND POTENTIOMETER
750 ohm, 25 watt. 3/6 each

COLVERN INSTRUMENT POTENTIOMETERS
3" diameter high quality wirewound potentiometer. 1/4" spindle, panel mounting. 2-5K ohm. 10/6 each

COLVERN INSTRUMENT POTENTIOMETERS
High quality 4" diameter precision potentiometer in metal cases. Cam corrected. Panel mounting. 1/4" spindle. Ideal for Bridges, etc. Available 1K ohm, 5K ohm, 9K ohm or 10K ohm. Brand new and boxed. 30/- each

CLAROSTAT TYPE 37 MINIATURE CARBON TRACK POTENTIOMETERS

Rated 1/2 watt. Dimensions: Body 1 1/8" dia. spindle length 2 1/8", spindle dia. 1/4" with standard flat.

Less switch
5,000 Ω 10,000 Ω 25,000 Ω 50,000 Ω
100,000 Ω 250,000 Ω 1/2 M Ω 1M Ω
2M Ω 3/- Each

D.P. switch
5,000 Ω 10,000 Ω 25,000 Ω 50,000 Ω
100,000 Ω 1/2 M Ω 1/2 M Ω 1M Ω 2M Ω
4/9 Each

Available in both log and linear.



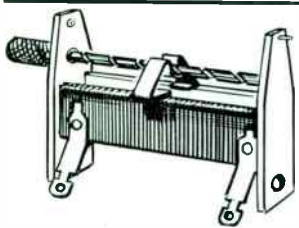
CLAROSTAT DUAL POTENTIOMETERS WITH COMMON SPINDLE

The controls consist of two type 37 potentiometers operated by a common spindle and are particularly useful for stereo application.

5K+5K	10K+10K	25K+25K
50K+50K	100K+100K	250K+250K
1/2M+1/2M	1M+1M	2M+2M

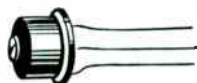
Available in both log and linear 7/6 each

With double pole on/off switch 9/6 each



EGEN ADJUSTABLE SLIDER CONTROLS

Wirewound tracks. Available 1 k ohm or 3 k ohms 1/9 each



SUB-MINIATURE TRIMPOTS

Wire ended for printed circuit mounting in metal TO5 case. Available in 10 k ohms only.

10/- each



WIREWOUND POTENTIOMETERS

Full range available from 6 ohms to 100 kohms. 1-4 watt rating 2/6 Each

25-WATT WIREWOUND INSTRUMENT POTENTIOMETERS

3" diameter. Available 250 ohm, 500 ohm, 2-5K, 75K, 100K, 200 kohms. 10/6 Each

6-WATT WIREWOUND POTENTIOMETERS

Available 270 ohm, 400 ohm, 1K, 2K, 10K and 20 kohms. 3/6 Each

HEAVY DUTY POTENTIOMETER

Ceramic body, vitreous coated. 2,000 ohms. 50 watt 7/6

EXTENSIVE RANGE OF POWER RHEOSTATS

Ceramic construction winding embedded in vitreous enamel. Heavy duty brush assembly designed for continuous use. Single hole fixing, 1/4" diameter shafts.



Model RPF25: 25W. Dimensions 40mm x 35mm 10 ohm, 25 ohm, 50ohm, 100 ohm, 250 ohm, 500 ohm, 1000 ohm, 1500 ohm, 2500 ohm, 5000 ohm. 14/6 each
Model RPF50: 50W. Dimensions 58mm x 37mm. 10 ohm, 25 ohm, 50 ohm, 100 ohm, 250 ohm, 500 ohm, 1000 ohm, 1500 ohm, 2500 ohm, 5000 ohm. 21/- each
Model RPF100: 100V. Dimensions 80mm x 47mm. 1 ohm 5 ohm, 10 ohm, 25 ohm, 50 ohm, 100 ohm, 250 ohm, 500 ohm, 1,000 ohm, 1,500 ohm, 2,500 ohm. 27/6 each

SUBMINIATURE PRESET RESISTORS



For Printed Circuits. 10mm x 13mm excluding tags available in the following sizes:

100Ω, 500Ω, 1KΩ, 5KΩ, 10KΩ, 25KΩ, 50KΩ, 100KΩ, 250KΩ, 500KΩ, 1 meg. All 1/- each

ADJUSTABLE WIREWOUND RESISTORS



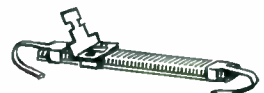
Moving Slider Type.

100 ohm, .9 amp. 4/6 each
200 ohm, .6 amp. 4/6 each



MINIATURE MOULDED TRACK PRESETS

Available as follows: 470 ohms, 6-8 k, 1-5 k, 4-7 k, 100 ohms. 2/- each



SLIDER PRESET CONTROLS

Linear tracks, wire ended. Available 15 ohms wirewound. 2 k, 15 k, 1 megohm carbon 1/- each



OPEN SKELETON PRESETS

Available as follows: 20 k, 250 k, 200 k, 2 M, 1 k, 1-5 M, 500 ohms, 5 k, 500 k, 350 ohms, 50 k, 1-2 M. 1/- each



MULTI-TURN TRIMPOTS

Available as follows: 500 ohms, 1 k, 5 k, 10k. 10/- each

DOUGLAS MAINS TRANSFORMERS

H.T. SERIES

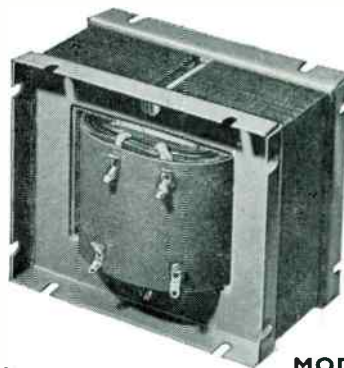


Primary	Secondary	Model	Price
200-250 volts	250-0-250 volts 80 mA. 6.3 volts 3.5 amp. 6.3 volts 1 amp. Tapped 5 volts 2 amp.	MT.1AT	37/6
200-250 volts	350-0-350 volts 80 mA. 6.3 volts 3.5 amp. 6.3 volts 1 amp. Tapped 5 volts 2 amp.	MT.2AT	39/6
200-250 volts	300-0-300 volts 100 mA. 6.3 volts 3.5 amp. 6.3 volts 1 amp. Tapped 5 volts 2 amp.	MT.11AT	42/6
200-250 volts	300-0-300 volts 120 mA. 6.3 volts C.T. 4 amp. 6.3 volts 1 amp. Tapped 5 volts 2 amp.	MT.12AT	49/6
200-250 volts	300-0-300 volts 150 mA. 6.3 volts C.T. 4 amp. 6.3 volts 1 amp. Tapped 5 volts 2 amp.	MT.33AT	55/-
200-250 volts	250-0-250 volts 100 mA. 6.3 volts 3.5 amp. 6.3 volts 1 amp. Tapped 5 volts 2 amp.	MT.6	42/6
200-250 volts	350-0-350 volts 100 mA. 6.3 volts 3.5 amp. 6.3 volts 1 amp. Tapped 5 volts 2 amp.	MT.7	45/-
200-250 volts	250-0-250 volts 120 mA. 6.3 volts 3.5 amp. 6.3 volts 1 amp. Tapped 5 volts 2 amp.	MT.10	47/6
200-250 volts	350-0-350 volts 120 mA. 6.3 volts 3.5 amp. 6.3 volts 1 amp. Tapped 5 volts 2 amp.	MT.8	47/6

DOUGLAS SPECIAL H.D. L.T. TRANSFORMERS

Primary	Secondary	Model	Price
200-250 volts	6 or 12 volts 20 amp.	M.56	£5 19 6
200-250 volts	20 volts 20 amp.	M.140	£8 10 0
200-250 volts	24 volts 30 amp.	M.130	£13 19 6

DOUGLAS TRANSFORMERS



MODEL AT

LOW VOLTAGE 30 VOLT RANGE

The following voltages are obtainable: 3-4-5-6-8-10-12-15-18-20-24 or 30 volts

Primary	Secondary	Model	Price
200-250 volts	12-15-20-24-30 volts $\frac{1}{2}$ amp.	MT.112AT	19/6
200-250 volts	12-15-20-24-30 volts 1 amp.	MT.79AT	25/6
200-250 volts	12-15-20-24-30 volts 2 amp.	MT.3AT	35/-
200-250 volts	12-15-20-24-30 volts 3 amp.	MT.20AT	45/-
200-250 volts	12-15-20-24-30 volts 4 amp.	MT.21AT	52/6
200-250 volts	12-15-20-24-30 volts 5 amp.	MT.51AT	59/6
200-250 volts	12-15-20-24-30 volts 6 amp.	MT.117AT	75/-
200-250 volts	12-15-20-24-30 volts 8 amp.	MT.88AT	92/6
200-250 volts	12-15-20-24-30 volts 10 amp.	MT.89AT	105/-

LOW VOLTAGE 50 VOLT RANGE

The following voltages are obtainable: 6-7-8-10-14-15-17-19-25-31-33-40 and 50 volts

Primary	Secondary	Model	Price
200-250 volts	19-25-33-40-50 volts $\frac{1}{2}$ amp.	MT.102AT	21/-
200-250 volts	19-25-33-40-50 volts 1 amp.	MT.103AT	32/6
200-250 volts	19-25-33-40-50 volts 2 amp.	MT.104AT	45/-
200-250 volts	19-25-33-40-50 volts 3 amp.	MT.105AT	59/6
200-250 volts	19-25-33-40-50 volts 4 amp.	MT.106AT	79/6
200-250 volts	19-25-33-40-50 volts 6 amp.	MT.107AT	122/6
200-250 volts	50-0-50 volts 1 amp.	MT.141	52/6
200-250 volts	50-0-50 volts 2 amp.	MT.142	79/6

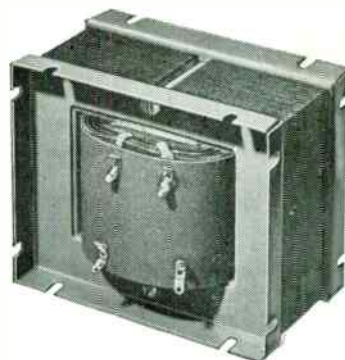
LOW VOLTAGE 60 VOLT RANGE

The following voltages are obtainable: 6-8-10-12-16-18-20-24-30-36-40-48-60 volts

Primary	Secondary	Model	Price
200-250 volts	24-30-40-48-60 volts $\frac{1}{2}$ amp.	MT.124 AT	24/-
200-250 volts	24-30-40-48-60 volts 1 amp.	MT.126AT	32/6
200-250 volts	24-30-40-48-60 volts 2 amp.	MT.127AT	47/6
200-250 volts	24-30-40-48-60 volts 4 amp.	MT.123AT	99/-
200-250 volts	24-30-40-48-60 volts 3 amp.	MT.125AT	75/-



DOUGLAS AUTO-WOUND TRANSFORMERS



E C Shrouded

A T Unshrouded

Tappings	Watts	Ref. No.	Price
0-115-210-240 volts	20	MT.113CT	14/6
0-115-200-220-240 volts	150	MT.4AT	35/-
0-115-200-220-240 volts	200	MT.65AT	49/6
0-115-200-220-240 volts	200	MT.65EC	59/6
0-115-200-220-240 volts	300	MT.66AT	69/6
0-115-200-220-240 volts	300	MT.66EC	79/6
0-115-200-220-240 volts	500	MT.67AT	102/6
0-115-200-220-240 volts	500	MT.67EC	125/-
0-115-200-220-240 volts	1000	MT.84AT	150/-
0-115-200-220-240 volts	1000	MT.84EC	£11.19.6
0-115-200-220-240 volts	1500	MT.93 EC	£13.10.0

DOUGLAS BATTERY CHARGER TRANSFORMER

Primary	Secondary	Model	Price
200-250 volts	5-11-17 volts 4 amp.	MT.5AT	35/-

DOUGLAS LOW VOLTAGE 12 VOLT RANGE TRANSFORMERS

Primary	Secondary	Model	Price
200-250 volts	12 volts ½ amp.	MT.111AT	13/6
200-250 volts	12 volts 1 amp.	MT.109AT	19/6
200-250 volts	12 volts 2 amp.	MT.71AT	25/-
200-250 volts	12 volts 3 amp.	MT.68AT	30/-
200-250 volts	12 volts 4 amp.	MT.69AT	35/-
200-250 volts	12 volts 5 amp.	MT.85AT	39/6
200-250 volts	12 volts 6 amp.	MT.70AT	45/-
200-250 volts	12 volts 8 amp.	MT.74AT	57/6
200-250 volts	12 volts 10 amp.	MT.72AT	67/6

MAINS TRANSFORMERS

FILAMENT TRANSFORMERS

220/240V. primary 6·3 volt 1½ amp (C).	10/6
220/240V. primary 6·3 volt 3 amp (C).	13/6

CONVERTOR TRANSFORMERS

220/240V. primary 200 volt 25 mA. 6·3 volt 1 amp (C).	12/6
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FULLY SHROUDED MAINS TRANSFORMERS

200/250V. primary 250-0-250 volt 60mA. 6·3 volt 3 amp 5 volt 2 amp (A).	27/6
200/250V. primary 250-0-250 volt 150mA. 6·3 volt ct. 5 amp 6·3 volt ct. 2 amp (A).	52/6
200/250V. primary 250-0-250 volt 50mA. 6·3 volt 2 amp	24/-

INSTRUMENT TRANSFORMERS

220/240V. primary 220 volt 45mA. 6·3 volt 1·5 amp.	
Available fully shrouded Type A.	19/6
or half shrouded drop through.	18/6
or unshrouded Type B.	17/6

BATTERY CHARGER TRANSFORMERS

For charging 2, 6 or 12 volt batteries.

1. 200/250V. primary. 3·5-9 or 17 volt 1 amp (B).	14/6
2. 200/250V. primary. 3·5-9 or 17 volt 2 amp (B).	19/6
3. 200/250V. primary. 3·5-9 or 17 volt 4 amp (B).	25/-
4. 200/250V. primary. 9 or 17 volt 6 amp (B).	36/-

SURPLUS PARMEKO MAINS TRANSFORMERS

Primary: 230 volt. Secondary: 350-0-350 volt, 150 mA; 6·3 volt, 3·5 amp; 5 volt, 4 amp.
Upright mounting. 21/- Carr. 5/-

MAINS ISOLATION TRANSFORMERS

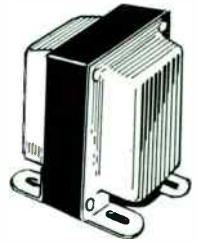
230 volt primary. 230 volt sec.	
1. 50 watt. Type A.	33/-
2. 100 watt. Type A.	49/6
3. 250 watt. Type A.	£4.17.6
4. 500 watt. Type A.	£8.5.0

AUTO TRANSFORMERS

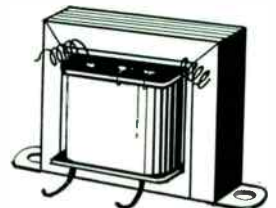
Tapped 0-110-200-220-240V.	
1. 60 watt. Type C.	18/6
2. 75 watt. Type C.	19/6
3. 150 watt. Type A.	27/6

SMOOTHING CHOKE

15 Henry 65 milliamp (B).	9/-
---------------------------	-----



Type A.



Type B.



Type C.

PERSONAL SHOPPERS WELCOME!

LARGE WALK ROUND SHOPS
WITH THOUSANDS OF BARGAINS

OPEN SIX DAYS A WEEK

9 a.m.—6 p.m.

EDGWARE ROAD HALF DAY
THURSDAY

'YAMABISHI' VARIABLE VOLTAGE TRANSFORMERS

Produced by Japan's largest manufacturer of variable transformers combining excellent quality with low cost.

All models are for an input of 230 V, 50/60 Hz and have a fully variable output of 0-260 V.

MODEL S260B Panel Mounting

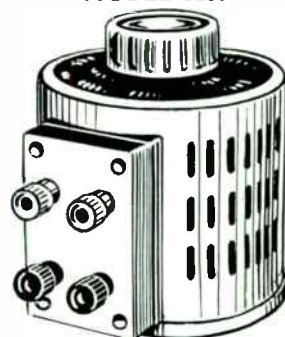
1 amp.	£5.10.0	2.5 amp.	£6.12.6
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MODEL S260 General Purpose Bench Mounting

1 amp.	£5.10.0	2.5 amp.	£6.15.0
5 amp.	£9.15.0	8 amp.	£14.10.0
10 amp.	£18.10.0	12 amp.	£21. 0.0



MODEL S260



MODEL S260B

'YEC' SOLID STATE VARIABLE A.C. VOLTAGE REGULATORS

COMPACT AND PANEL MOUNTING

Ideal for the control of lamps, heating, electrical appliances, motors, drills, etc
Input 230 V a.c. Output continuously variable from 20 V to 230 V.



MODEL MR2305

5-amp. rating

Size: 68 x 46 x 43 mm

£8.7.6

MODEL MR2310

10-amp. rating

Size: 90 x 68 x 60 mm.

£11.19.6

VOLTAGE STABILISER TRANSFORMERS

Ensures Perfect Test Gear Reading,
TV Reception,

Photographic and Colour Processing

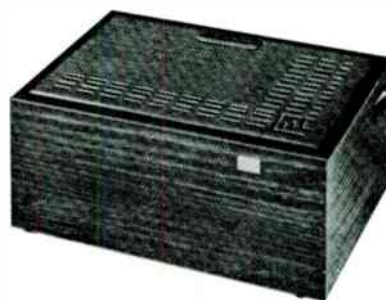
In spite of Seasonal Voltage Drops x Protects equipment during sudden surges

- NO MOVING PARTS
- NO MAINTENANCE
- NO ATTENTION

Designed to be used at maximum load for best stabilisation.

Input: 240 VAC -20% 50 Hz. Output: 240 VAC - 1%.
Fitted inlet and outlet sockets, neon indication and on/off switch. Attractive wood grain finish metal case. Size: 10" x 6" x 4". Available in 150-watt and 225-watt models.

£12.10.0 Carr. 15/-



VARIABLE VOLTAGE TRANSFORMERS

INPUT 230 VOLTS
50/60 CYCLES.
OUTPUT VARIABLE FROM
0-260 VOLTS.

Supplied brand new, boxed
and guaranteed.



1 amp.	£5.10.0	10 amp.	£18.10.0
2.5 amp.	£6.15.0	12 amp.	£21. 0.0
5 amp.	£9.15.0	20 amp.	£37. 0.0
8 amp.	£14.10.0	37.5 amp.	£65. 0.0
	50 amp.	£85.0.0	

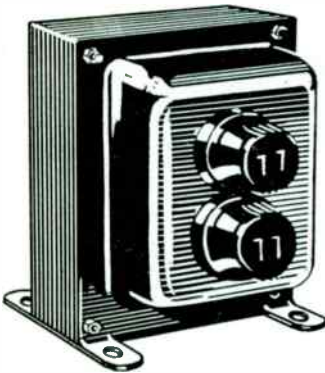
ALL ABOVE TYPES OF TRANSFORMERS ARE FULLY SHROUDED.

EX-AM. AUTO TRANSFORMERS

CONTINUOUS RATING. HEAVY DUTY CONSTRUCTION
Tapped 0-115-230 volts. Step up or Step down.
7500 watt—£15.0.0

AUTO TRANSFORMERS

Heavy duty and fully shrouded.

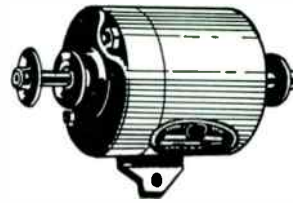


230 to 115 V step up or step down. Flying lead termination for 230 V. Twin American 2-pin outlets fitted for 115 volts.

Available	150W	£2	7	6
	300W	£3	5	6
	500W	£4	19	6
		P. & P.	5/-	
	1000W	£7	5	0
		P. & P.	6/6	
	1500W	£8	19	6
		P. & P.	7/6	

HOOVER ROTARY TRANSFORMERS

12 v. D.C. input. Output 310/360 mA. D.C. 30 mA
10/- each



DELCO MOTORS

Shunt wound. 27 volts, 1.5 amp. 4 in. oz. torque. 5,400 r.p.m. 1/8" spindle. 10/6 each
Operates well on 12 volts d.c.

MAINS MOTORS

1/9 H.P. 230 VOLTS A.C. MOTORS 5,000 R.P.M.
1/4 Shaft. 22/6

DELCO 24 VOLT D.C. MOTOR

EX-MILITARY PRECISION MOTOR.
5,400 r.p.m. Shunt wound. 10/6 each

ALADDIN RF SUPPRESSOR CHOKES



These small, heavy current FR suppressors are ideal for the suppression of motor-driven appliances and in input circuits of power units. Rated for use at 250 V a.c. RMS. Inductance approximately 6 microhenries. 1 1/2" lead-out wires.

RFS-1	1 Amp	0.6" x 0.2" dia	White	2/-
RFS-2	2 Amps	0.75" x 0.2" dia	Yellow	2/-
RFS-3	3 Amps	0.9" x 0.3" dia	Black	2/-

MINIATURE ROTARY WAVECHANGE SWITCHES

Dimensions: Dia. 1 1/4". Spindle 2 1/2" x 1/4" dia.

1 pole	12 way ..	..	..	3/6
2 pole	2 way ..	..	..	3/6
2 pole	4 way ..	..	..	3/6
2 pole	6 way ..	..	..	3/6
3 pole	4 way ..	..	..	3/6
4 pole	2 way ..	..	..	3/6
4 pole	3 way ..	..	..	3/6



COMPONENT SPECIALISTS!

We carry stocks of virtually every known component.

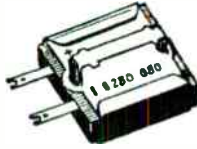
**LET US QUOTE FOR YOUR EVERY REQUIREMENT OR CALL AT OUR
LARGE WALK AROUND SHOPS. CALL, WRITE OR TELEPHONE!**



VIBRATORS

12v. 4-pin Non-synchronous 5/6
 12v. 7-pin Synchronous .. 5/6

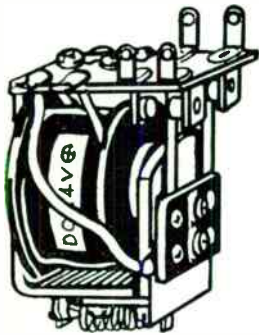
SELENIUM CONTACT COOLED RECTIFIERS



12v.	1 amp.	Full wave bridge	..	..	4/6
24v.	2 amp.	Full wave bridge	..	..	7/6
30v.	800 mA.	Full wave bridge	..	..	7/6
30v.	1-2 amp.	Full wave bridge	..	..	8/6
125v.	80 mA.	Half wave	..	..	3/9
250v.	50 mA.	Half wave	..	..	5/6
250v.	60 mA.	Half wave	..	..	6/6
250v.	150 mA.	Full wave	..	..	6/6
250v.	85 mA.	Half wave	..	..	7/6
250v.	300 mA.	Full wave	..	..	19/6
250v.	75 mA.	Full wave bridge	..	..	12/6
250v.	120 mA.	Full wave bridge	..	..	13/6
250v.	150 mA.	Full wave bridge	..	..	13/6

WESTINGHOUSE METER RECTIFIERS

FULL WAVE BRIDGE CONNECTED
 1 mA.—8/6 5 mA.—7/6 10 mA.—7/6



OMRON Mk2 RELAYS

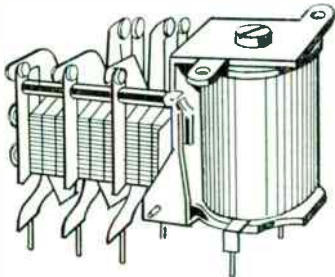
24 V d.c. coil operation. Contact arrangements: 2-pole changeover, 5-amp. rating. Small compact size. Offered brand new and boxed at fraction of original cost. 7/6 ea

Also available:
 6 V d.c. coil operation. Two sets of changeover contacts, 5-amp. rating. 7/6 each

SPECIAL OFFER! MAGNETIC DEVICES RELAYS

AVAILABLE BRAND NEW BOXED AS FOLLOWS

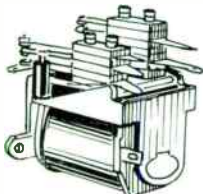
Type 1 10,000 ohms coil (24-48v.), 4 Make contacts
 1 Break contact... .. 8/6
 Type 2 590 ohms, 2 Make contacts, 2 Break contacts 8/6
 All contacts are high quality silver plated. 3-5 amp. rating.



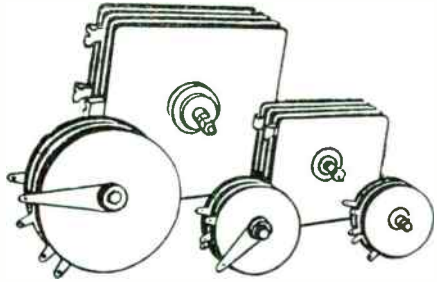
ELECTRO METHODS

230 V A.C. RELAYS

Two make and one set of changeover contacts. 5 amp. 12/6 each



SELENIUM LT. RECTIFIERS



FULL WAVE BRIDGE CONNECTED

24/36v.	1 amp.	..	..	..	7/3
12/18v.	4 amp.	..	..	..	9/6
24/36v.	4 amp.	..	..	..	14/-
12/18v.	6 amp.	..	..	..	12/3
24/36v.	6 amp.	..	..	..	22/6

SENTERCEL RM RECTIFIERS

RM1	125v.	60 mA.	..	4/3
RM2	125v.	80 mA.	..	4/6
RM3	125v.	120 mA.	..	7/6
RM4	250v.	250 mA.	..	16/-
RM5	250v.	300 mA.	..	17/6



T.M.C. 1000 SERIES KEY SWITCHES

Brand new with knobs: 2-way, 2 c/o, 2 c/o, 8/6

Post extra. Quantities available.

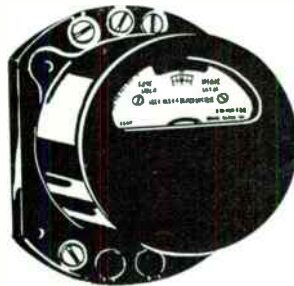


WESTON MOVING COIL RELAYS

Single pole changeover contacts.

Current rating varies from 120 to 150 microamps.

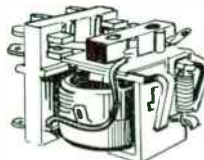
Brand new and boxed. 42/6 each

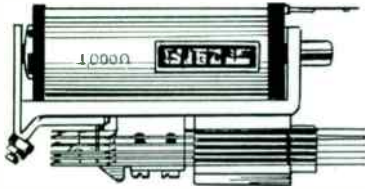


POTTER & BRUMFIELD RELAY

24 V A.C. COIL

Two sets of changeover contacts. 5-amp. rating. 7/6 each





P.O. 3000 TYPE RELAYS

We hold enormous stocks of Post Office Type Relays. Listed below are a few sample types. We can, however, make them up to your own specifications. Please state coil resistance and contact arrangement required and we will quote.

COIL	CONTACTS	PRICE	COIL	CONTACTS	PRICE
200 Ω slugged	2 sets c/over	6/6	2K + 500 Ω	7 makes	12/6
500 Ω slugged	2 sets M.B.B. c/over	8/6	4K Ω	1 c/over 1 make 1 break	10/6
500 Ω	4 make 2 c/over	12/6	4K Ω	2 makes	8/6
500 Ω	3 sets c/over	11/6	4K Ω	1 make 1 H.D. make	8/6
500 Ω	4 sets c/over	12/6	6K Ω	2 make 2 break	10/6
1K Ω	1 make 1 break	7/6	6K Ω	3 makes	10/6
1K Ω	4 make 4 break	12/6	6K Ω	2 sets c/over	10/6
2K Ω	2 make 1 break	10/6	6K Ω	6 sets c/over	19/6
2K Ω	1 c/over 1 M.B.B. c/over	10/6	6K Ω	1 c/over 1 break	10/6
2K Ω	1 break	6/6	6.5K Ω	2 make 1 break	10/6
2K Ω	2 sets c/over	8/6	6.5K Ω	2 sets c/over	10/6
2K Ω	2 H.D. make	8/6	6.5K Ω	2 c/over 2 make	12/6
2K Ω	6 B.Breaks	10/6	20K Ω	1 c/over 1 make 1 M.B.B. c/over	15/6

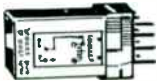
Abbreviations. M.B.B. — Make Before Break. H.D. — Heavy Duty.



5A9 CARPENTER RELAYS

1685 + 1685 ohm coils.
Brand new 12/6 each

SIEMENS HIGH-SPEED RELAYS



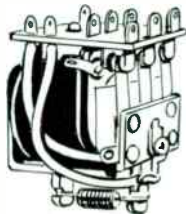
Sealed Type.
Contacts 1 pole c/over.
145 + 145 ohms 10/6

1700 + 1700 ohms 15/6

Unsealed Type.
Contacts 1 pole c/over.
100 + 100 ohm 7/6

145 ohm 7/6

500 ohm 7/6



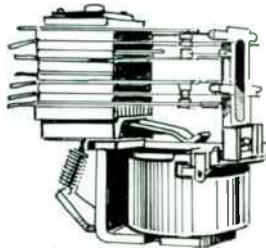
A.D.S. RELAYS TYPE LK 24 V A.C.

Coils. 5-amp. rating

Type LK-4C
4 sets of c/o contacts 10/6

Type LK-3C
3 sets of c/o contacts 9/-

Type LK-2C
2 sets of c/o contacts 7/6



ROBINSON TYPE J RELAYS

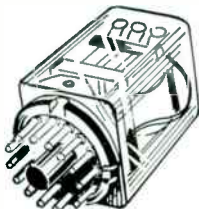
Heavy duty 5-amp. contacts. Available as follows:

12 V d.c. 4 sets changeover 10/6

24 V d.c. 4 sets changeover 10/6

24 V a.c. 4 sets changeover 10/6

24 V a.c. 2 sets changeover 7/6

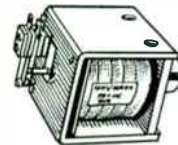


115V A.C. RELAY

Three-pole changeover, 5-amp contacts. 11-pin base.

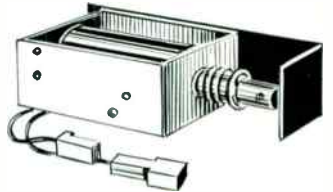
10/6 each.

MAGNETIC DEVICES SOLENOIDS



50 volts d.c.
10/6 each

230 V A.C. SOLENOIDS



3" × 1½" × 1". ¼ travel when energised.
8/6 each

12 V D.C. SOLENOIDS



3" × 1½" diameter. Break contact when energised.
7/6 each

Ceramic–Silver Mica–Polythene–Moulded Mica Fixed Condensers

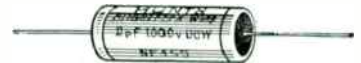
.5 pF—5000 pF 6d each over 5000 pF 9d each

.5 pF	4.7 pF	25 pF	68 pF	250 pF	580 pF	1500 pF	5000 pF
.75 pF	5 pF	27 pF	75 pF	270 pF	600 pF	1800 pF	5600 pF
1 pF	5.6 pF	30 pF	82 pF	300 pF	620 pF	2000 pF	6800 pF
1.5 pF	6.8 pF	33 pF	100 pF	330 pF	680 pF	2200 pF	8200 pF
2 pF	8.2 pF	35 pF	120 pF	385 pF	700 pF	2500 pF	10,000 pF
2.2 pF	10 pF	39 pF	130 pF	400 pF	750 pF	2700 pF	20,000 pF
2.7 pF	12 pF	40 pF	150 pF	410 pF	800 pF	3000 pF	100,000 pF
3 pF	15 pF	47 pF	160 pF	470 pF	820 pF	3300 pF	
3.3 pF	18 pF	50 pF	180 pF	500 pF	1000 pF	3900 pF	
3.9 pF	20 pF	56 pF	200 pF	540 pF	1200 pF	4000 pF	
4 pF	22 pF	60 pF	220 pF	560 pF	1300 pF	4700 pF	

ALL THE ABOVE VALUES ARE AVAILABLE IN EITHER CERAMIC, SILVER MICA, POLYTHENE, OR MOULDED MICA. DUE TO CONSTANT CHANGES OF STOCK WE CANNOT GUARANTEE TO SUPPLY ANY PARTICULAR TYPE BUT WILL DO OUR BEST OTHERWISE ALTERNATIVES WILL BE SENT.

Paper Tubular Condensers, Wire Ended

MANUFACTURED BY T.C.C., DUBILIER, HUNTS, PLESSEY, ETC.



.001 mFd	350v.	6d	.02 mFd	500v.	9d	.1 mFd	400v.	9d
.001 mFd	1000v.	9d	.02 mFd	1000v.	9d	.1 mFd	500v.	9d
.002 mFd	350v.	6d	.03 mFd	150v.	9d	.1 mFd	650v.	9d
.002 mFd	1000v.	9d	.03 mFd	750v.	9d	.2 mFd	350v.	1/-
.005 mFd	200v.	6d	.04 mFd	150v.	9d	.25 mFd	150v.	1/-
.005 mFd	350v.	6d	.04 mFd	400v.	9d	.25 mFd	350v.	1/3
.005 mFd	500v.	6d	.047 mFd	400v.	9d	.25 mFd	750v.	1/6
.005 mFd	1000v.	9d	.05 mFd	150v.	9d	.5 mFd	150v.	1/-
.01 mFd	150v.	9d	.05 mFd	200v.	9d	.5 mFd	350v.	1/3
.01 mFd	350v.	9d	.05 mFd	350v.	9d	.68 mFd	160v.	1/6
.01 mFd	400v.	9d	.05 mFd	500v.	9d	1 mFd	150v.	1/6
.01 mFd	500v.	9d	.05 mFd	1000v.	9d	1 mFd	250v.	1/6
.01 mFd	600v.	9d	.05 mFd	1500v.	1/6	1 mFd	350v.	1/6
.01 mFd	1000v.	9d	.1 mFd	150v.	9d	2 mFd	150v.	1/6
.02 mFd	150v.	9d	.1 mFd	200v.	9d	2 mFd	250v.	1/6
.02 mFd	350v.	9d	.1 mFd	350v.	9d	6 mFd	50v.	2/6

Miniature Paper Condensers

100 VOLT WORKING, WIRE ENDED FOR TRANSISTOR CIRCUITS

500 pF	6d	2000 pF	6d	.01 mFd	6d	.03 mFd	9d	.05 mFd	9d
1000 pF	6d	5000 pF	6d	.02 mFd	9d	.04 mFd	9d	.1 mFd	9d

ELECTROLYTIC CONDENSERS

**ALUMINIUM CAN—
UPRIGHT MOUNTING
FAMOUS MANUFACTURE
FRESH STOCK**



24 mFd	350v.	2/6
30 mFd	350v.	2/-
32 mFd	350v.	2/6
32 mFd	450v.	3/3
40 mFd	350v.	2/9
60 mFd	275v.	1/6
60 mFd	350v.	2/9
80 mFd	450v.	3/6
100 mFd	275v.	2/6
100 mFd	350v.	3/6
250 mFd	275v.	3/6
500 mFd	6v.	1/-
750 mFd	6v.	1/-
750 mFd	12v.	1/6
1000 mFd	25v.	3/6
2000 mFd	12v.	3/6

2000 mFd	15v.	2/6
5000 mFd	6v.	3/6
5000 mFd	12v.	4/6
5000 mFd	15v.	5/6
5000 mFd	25v.	12/6
5000 mFd	50v.	22/6
10000 mFd	25v.	17/6
10+10 mFd	450v.	2/6
20+15 mFd	450v.	2/6
20+20 mFd	350v.	2/6
20+20 mFd	450v.	3/6
24+14 mFd	500v.	3/-
24+24 mFd	275v.	2/-
24+24 mFd	350v.	2/6
32+32 mFd	275v.	1/6
32+32 mFd	350v.	4/6
32+32 mFd	450v.	6/-
40+40 mFd	150v.	1/6
40+40 mFd	350v.	3/-
50+10 mFd	350v.	2/6
50+50 mFd	275v.	2/6
50+50 mFd	350v.	6/-
100+10 mFd	250v.	1/6
100+40 mFd	450v.	5/-

100+60 mFd	275v.	4/-
100+60 mFd	450v.	5/3
100+64 mFd	275v.	4/-
100+100 mFd	275v.	4/6
100+200 mFd	275v.	7/6
120+50 mFd	150v.	2/6
140+60 mFd	350v.	3/6
150+30 mFd	350v.	3/6
200+50 mFd	275v.	4/6
200+100 mFd	275v.	7/6
16+16+ 4 mFd	275v.	2/-
32+32+16 mFd	275v.	2/6
40+40+20 mFd	275v.	2/6
80+40+20 mFd	450v.	4/3
100+20+10 mFd	350v.	3/6
100+100+50 mFd	275v.	4.-
100+100+50 mFd	300v.	4/3
100+100+50 mFd	350v.	4/6
25+20+5+5 mFd	400v.	3/6
130+60+10+10 mFd.	350v.	4/6

CONDENSER UPRIGHT MOUNTING CLIPS. 1"—1 3/8" 1 1/2" dia. 6d each

BLOCK PAPER CONDENSERS

FAMOUS MANUFACTURERS



**HUNTS
DUBILIER
T.C.C.
AEROVOX
ETC.**

.02 mFd	8500v. d.c.	5/6
.1 mFd	3000v. d.c.	3/6
.1 mFd	5000v. d.c.	4/6
.1 mFd	6200v. d.c.	6/6
.25 mFd	2500v. d.c.	3/6
.25 mFd	4000v. d.c.	5/6
.25 mFd	5000v. d.c.	7/6
.25 mFd	7500v. d.c.	10/6
.5 mFd	400v. d.c.	2/6

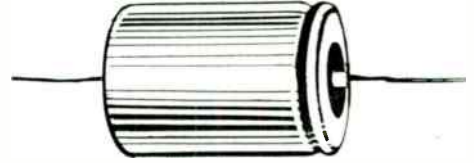
.5 mFd	1000v. d.c.	3/6
.5 mFd	3000v. d.c.	6/6
1 mFd	250v. d.c.	1/3
1 mFd	350v. d.c.	1/6
1 mFd	500v. d.c.	2/6
2 mFd	200v. d.c.	1/-
2 mFd	250v. d.c.	1/3
2 mFd	350v. d.c.	1/6
2 mFd	600v. d.c.	3/6
2 mFd	1000v. d.c.	4/6
2 mFd	1200v. d.c.	5/6
2 mFd	5000v. d.c.	42/6
3 mFd	600v. d.c.	3/6
4 mFd	150v. d.c.	5/6
4 mFd	150v. d.c.	1/9
4 mFd	200v. d.c.	2/-
4 mFd	600v. d.c.	4/6
4 mFd	800v. d.c.	5/6
4 mFd	1000v. d.c.	6/6

4 mFd	1500v. d.c.	8/6
4 mFd	220v. a.c.	4/6
6 mFd	50v. d.c.	3/6
6 mFd	400v. d.c.	4/-
6 mFd	500v. d.c.	4/6
8 mFd	350v. d.c.	4/6
8 mFd	400v. d.c.	4/6
8 mFd	800v. d.c.	8/6
8 mFd	1200v. d.c.	12/6
9 mFd	400v. d.c.	5/6
12 mFd	1500v. d.c.	15/6
25 mFd	300v. a.c.	25/-
.15+.15 mFd	8000v. d.c.	8/6
.4+.4 mFd	1250v. d.c.	2/-
.6+.6+.6 mFd	90v. a.c.	2/-
1.8+1.8+1.8 mFd	110v. a.c.	2/6

4.45" CONDENSER MOUNTING STRAPS 6d each



SPRAGUE ELECTROLYTICS



A range of high-quality Electrolytic Condensers for use in L.T. smoothing circuits.

500 mFd—50v.	4/6	2000 mFd—50v.	10/6
1000 mFd—25v.	5/-	2500 mFd—25v.	8/6
2000 mFd—25v.	6/9	2500 mFd—50v.	12/6
3000 mFd—25v.	9/6		
5000 mFd—25v.	12/6		
5000 mFd—50v.	22/6		

All types are wire ended and fitted with insulated sleeves with the exception of the 5000 mFd—50v. which is a 1 1/2" upright can mounting.

MINIATURE ELECTROLYTICS FOR TRANSISTOR CIRCUITRY



.25 mFd	25v.	1/3	8 mFd	3v.	1/6	50 mFd	12v.	1/6
.5 mFd	25v.	1/3	8 mFd	12v.	1/6	64 mFd	25v.	1/6
1 mFd	18v.	1/6	8 mFd	15v.	1/6	100 mFd	12v.	1/6
1.5 mFd	25v.	1/6	10 mFd	18v.	1/6	160 mFd	16v.	1/6
2 mFd	12v.	1/6	16 mFd	12v.	1/6	200 mFd	6.4v.	1/6
2 mFd	18v.	1/6	25 mFd	4v.	1/6	320 mFd	2.5v.	1/6
4 mFd	15v.	1/6	25 mFd	12v.	1/6	320 mFd	10v.	1/6
5 mFd	12v.	1/6	30 mFd	12v.	1/6	400 mFd	6.4v.	1/6
5 mFd	15v.	1/6	32 mFd	12v.	1/6	500 mFd	4v.	1/6
6.4 mFd	64v.	1/6	40 mFd	16v.	1/6			

DUBILIER E.H.T. CONDENSER



Ceramic Insulated Body

.005 mFd, 3000 volt 3/6 each

AMERICAN HEAVY DUTY PAPER CONDENSERS

.25 mFd	32,500 volt	£4 10 0
2 x 1 mFd	7500 volt	£4 10 0
2 mFd	7500 volt	£4 10 0

Carriage 10/- each

AEROVOX MICA CONDENSERS

600 pF	5000 volt	1000 kHz
3.75 amp.		10/-
1000 pF	5000 volt	1000 kHz
4.5 amp.		12/6

DUBILIER 20-AMP FEED-THROUGH CAPACITORS

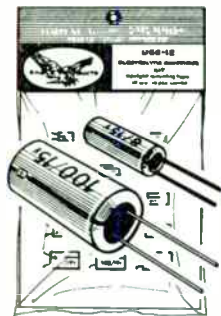
.05 mFd 220 volt d.c. 39/6 each

ELECTROLYTIC CONDENSERS

ALL FRESH STOCK—FAMOUS MANUFACTURERS,
TUBULAR TAG OR WIRE ENDED AND INSULATED



1 mFd	100v.	6d	50 mFd	6v.	1/3	1000 mFd	12v.	2/6
1 mFd	350v.	1/-	50 mFd	12v.	1/3	1000 mFd	25v.	5/-
2 mFd	50v.	6d	50 mFd	25v.	1/6	1500 mFd	30v.	5/-
2 mFd	100v.	6d	50 mFd	50v.	1/6	2000 mFd	6v.	2/-
2 mFd	275v.	9d	50 mFd	100v.	2/-	2000 mFd	12v.	2/6
2 mFd	350v.	1/-	50 mFd	350v.	3/6	2000 mFd	15v.	2/6
4 mFd	50v.	6d	60 mFd	275v.	2/6	2000 mFd	25v.	6/9
4 mFd	100v.	6d	100 mFd	6v.	1/-	2000 mFd	50v.	10/6
4 mFd	150v.	6d	100 mFd	12v.	1/6	2500 mFd	12v.	2/6
4 mFd	200v.	6d	100 mFd	25v.	1/6	2500 mFd	25v.	8/6
4 mFd	350v.	1/3	100 mFd	32v.	1/6	2500 mFd	50v.	12/6
5 mFd	25v.	9d	100 mFd	50v.	2/-	3000 mFd	25v.	9/6
5 mFd	50v.	1/-	100 mFd	70v.	2/-	5000 mFd	25v.	12/6
8 mFd	150v.	1/-	100 mFd	100v.	2/6	8+8 mFd	450v.	3/6
8 mFd	275v.	1/-	150 mFd	50v.	2/-	8+16 mFd	450v.	3/6
8 mFd	450v.	2/3	150 mFd	25v.	1/6	12+12 mFd	275v.	2/-
12 mFd	25v.	1/-	200 mFd	6v.	1/3	16+16 mFd	275v.	2/6
16 mFd	275v.	1/6	200 mFd	12v.	1/6	16+16 mFd	450v.	3/9
16 mFd	450v.	3/-	200 mFd	25v.	1/9	16+32 mFd	350v.	3/6
20 mFd	450v.	2/6	250 mFd	6v.	1/3	32+32 mFd	350v.	4/6
24 mFd	350v.	3/3	250 mFd	18v.	1/6	32+32 mFd	450v.	4/9
25 mFd	25v.	1/6	250 mFd	25v.	2/6	48+48 mFd	350v.	3/9
25 mFd	50v.	1/6	250 mFd	50v.	3/6	50+30 mFd	150v.	2/-
30 mFd	350v.	2/-	500 mFd	6v.	1/6	50+50 mFd	275v.	2/6
32 mFd	150v.	1/6	500 mFd	12v.	2/-	50+50 mFd	350v.	6/-
32 mFd	350v.	2/6	500 mFd	25v.	3/6	8+8+8 mFd	350v.	3/6
32 mFd	450v.	3/6	500 mFd	50v.	4/6	10+10+10 mFd	350v.	3/6
40 mFd	450v.	3/6	1000 mFd	6v.	2/-	16+16+4 mFd	275v.	2/6



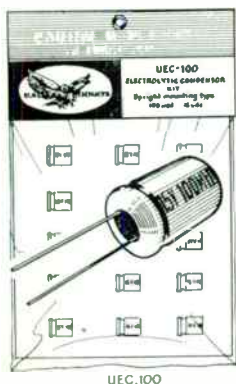
"EAGLE" UEC.12

Display card of
15 pieces 15 wV
Upright Mounting

Mylar Condensers:—

- 3 x 8 mfd
- 3 x 10 mfd
- 3 x 30 mfd
- 3 x 50 mfd
- 3 x 100 mfd

13/6



"EAGLE"

Display cards of
15 pieces 15 wV
Upright
Mounting Condensers.

- UEC.8 15 pcs. 8 mfd 11/-
- UEC.10 15 pcs. 10 mfd 11/-
- UEC.30 15 pcs. 30 mfd 11/-
- UEC.50 15 pcs. 50 mfd 13/6
- UEC.100 15 pcs. 100 mfd 13/6

"EAGLE" Display cards of 6 pieces 10V Upright Mounting Miniature Condensers.



- CC.1 6 pcs. 5 mfd 5/-
- CC.2 6 pcs. 10 mfd 5/-
- CC.3 6 pcs. 30 mfd 5/-
- CC.4 6 pcs. 50 mfd 5/-
- CC.5 6 pcs. 100 mfd 7/-

"EAGLE" Display cards of 6 pieces 10V Upright Mounting Miniature Condensers.



- CC.6 6 pcs. 5 mfd 6/-
- CC.7 6 pcs. 10 mfd 6/-
- CC.8 6 pcs. 30 mfd 6/-
- CC.9 6 pcs. 50 mfd 7/-
- CC.10 6 pcs. 100 mfd 7/-

"EAGLE" Display cards of 6 pieces 25V Upright Mounting Miniature Condensers.



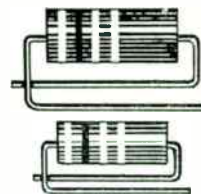
- CC.11 5 pcs. 5 mfd 6/-
- CC.12 5 pcs. 10 mfd 6/-
- CC.13 5 pcs. 30 mfd 6/-
- CC.14 5 pcs. 50 mfd 7/-
- CC.15 5 pcs. 100 mfd 7/6

"EAGLE" Display cards of 5 pieces 250V Upright Mounting Miniature "MYLAR" Capacitors.



- CC.16 5 pcs. .01 mfd 250V 4/6
- CC.17 5 pcs. .05 mfd 250V 6/-
- CC.18 5 pcs. 0.1 mfd 250V 8/6

FIXED RESISTORS



10 Ω	470 Ω	12K	270K
12 Ω	560 Ω	13K	300K
15 Ω	680 Ω	15K	330K
18 Ω	820 Ω	18K	390K
22 Ω	1K	20K	470K
24 Ω	1.2K	22K	510K
25 Ω	1.5K	24K	560K
27 Ω	1.8K	27K	680K
33 Ω	2.2K	33K	820K
39 Ω	2.4K	36K	1 Meg.
47 Ω	2.7K	39K	1.2 Meg.
56 Ω	3K	43K	1.2 Meg.
68 Ω	3.3K	47K	1.5 Meg.
75 Ω	3.6K	51K	1.8 Meg.
82 Ω	3.9K	56K	2 Meg.
91 Ω	4.3K	62K	2.2 Meg.
100 Ω	4.7K	68K	2.7 Meg.
120 Ω	5.1K	82K	3.3 Meg.
150 Ω	5.6K	100K	3.9 Meg.
180 Ω	6.2K	120K	4.7 Meg.
220 Ω	6.8K	150K	5.6 Meg.
270 Ω	7.5K	180K	6.8 Meg.
300 Ω	8.2K	200K	8.2 Meg.
390 Ω	9.1K	220K	10 Meg.
	10K	250K	22 Meg.

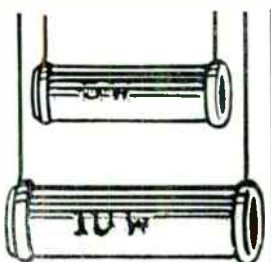
ALL ABOVE VALUES AVAILABLE
AS FOLLOWS:

Standard Miniature	1/8 watt	3d. each
Standard	1/4 watt	3d. each
Standard	1/2 watt	3d. each
Standard	1 watt	4d. each
Standard	2 watt	6d. each

WIREWOUND CERAMIC OR CEMENT COATED RESISTORS

Most values available from .5 ohm to 100K Ω.
Available as follows:

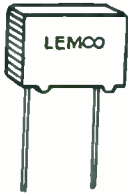
- 1 watt 6d each
- 3 watt 9d each
- 5 watt 1/3 each
- 10 watt 1/6 each
- 15 watt 2/- each



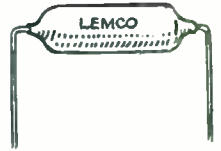
HIGH STABILITY CRACKED CARBON

Tolerance 5% or better

- 1/8 watt .. 6d. each 1/4 watt .. 6d. each
- 1/4 watt .. 6d. each 1 watt .. 1/- each
- 2 watt .. 1/3 each



LEMCO POLYESTER CONDENSERS



A full range of high quality high stability A full range of high-quality, high-stability, first-grade condensers at down-to-earth prices.

Available as follows:

·001 mFd	400v.	9d	·033 mFd	160v.	9d	·22 mFd	160v.	1/-
·0015 mFd	400v.	9d	·033 mFd	400v.	10d	·22 mFd	200v.	1/-
·0022 mFd	400v.	9d	·047 mFd	160v.	9d	·22 mFd	400v.	1/3
·0033 mFd	400v.	9d	·06 mFd	400v.	10d	·33 mFd	160v.	1/-
·0047 mFd	400v.	9d	·068 mFd	125v.	9d	·33 mFd	200v.	1/-
·005 mFd	400v.	9d	·068 mFd	160v.	9d	·22 mFd	400v.	1/3
·0068 mFd	400v.	9d	·068 mFd	400v.	10d	·47 mFd	125v.	1/3
·01 mFd	160v.	9d	·1 mFd	160v.	10d	·47 mFd	160v.	1/3
·01 mFd	400v.	10d	·1 mFd	200v.	10d	·47 mFd	200v.	1/3
·02 mFd	160v.	10d	·15 mFd	125v.	10d	·68 mFd	160v.	1/6
·022 mFd	160v.	9d	·15 mFd	160v.	10d	·68 mFd	400v.	2/-
·022 mFd	900v.	10d	·15 mFd	200v.	10d	1 mFd	160v.	2/-
·033 mFd	125v.	9d	·15 mFd	400v.	1/-	1 mFd	200v.	2/-



T.C.C. VISCONOL CONDENSERS

SINGLE
NUT
FIXING

·001 mFd	10K volt	4/6
·01 mFd	5K volt	4/6
·025 mFd	2.5K volt	3/6
·05 mFd	1K volt	1/3
·05 mFd	2.5K volt	2/6
·05 mFd	5K volt	4/6
·05 mFd	8K volt	7/6
·05 mFd	8K volt	7/6
·1 mFd	5K volt	7/6
·1 mFd	6K volt	8/6
·25 mFd	2.5K volt	8/6
·5 mFd	2.5K volt	10/6



"LEAD-THROUGH" CERAMICS

350 volts d.c. working miniature tubular 'solder-in' construction fitted solder lugs. Tolerance +50% -25%.

1,000 pF

91 pF Bolt-in type

1/- each

1/- each

SCREENING (SUPPRESSION) BEADS

Beads in relatively high permeability ferrites are threaded on wire leads and provide an equivalent of resistors inserted in series with the circuit to be protected. They are used in this manner to prevent leakage, along the d.c. and heater leads, from screened boxes, to prevent parasitic oscillations arising from spurious feedback, to suppress interference, etc. This becomes possible because at frequencies far removed from the normal range of application, losses increase to very high levels.

Model	Grade	Diameter (in.) Outside	Inside	Length (in.)	Price per Packet of 10
F8/Size 1	F8	·159	·059	·375	3/6
F8/Size 2	F8	·159	·079	·197	3/6
F8/Size 3	F8	·159	·079	·375	3/6
F14/Size 1	F14	·138	·047	·118	3/6
F14/Size 2	F14	·159	·059	·197	3/6
F14/Size 3	F14	·159	·059	·217	3/6
F14/Size 4	F14	·159	·079	·159	3/6

WAYCOM CARBON FILM RESISTORS

TYPE WPO131

½ watt ± 5% 5-1 Ω-330 KΩ

6d. each

TYPE WPO51

½ watt ± 2% 10 Ω-1 MΩ

9d. each

TYPE WPO51

½ watt ± 5% 10 Ω-10 MΩ

6d. each

Availability in the following preferred sizes:—

5-1 Ω	200 Ω	7-5 KΩ	300 KΩ
5-6 Ω	220 Ω	8-2 KΩ	330 KΩ
6-2 Ω	240 Ω	9-1 KΩ	360 KΩ
6-8 Ω	270 Ω	10 KΩ	390 KΩ
7-5 Ω	300 Ω	11 KΩ	430 KΩ
8-2 Ω	330 Ω	12 KΩ	470 KΩ
9-1 Ω	360 Ω	13 KΩ	510 KΩ
10 Ω	390 Ω	15 KΩ	560 KΩ
11 Ω	430 Ω	16 KΩ	620 KΩ
12 Ω	470 Ω	18 KΩ	680 KΩ
13 Ω	510 Ω	20 KΩ	750 KΩ
15 Ω	560 Ω	22 KΩ	820 KΩ
16 Ω	620 Ω	24 KΩ	910 KΩ
18 Ω	680 Ω	27 KΩ	1 MΩ
20 Ω	750 Ω	30 KΩ	1-1 MΩ
22 Ω	820 Ω	33 KΩ	1-2 MΩ
24 Ω	910 Ω	36 KΩ	1-3 MΩ
27 Ω	1 KΩ	39 KΩ	1-5 MΩ
30 Ω	1-1 KΩ	43 KΩ	1-6 MΩ
33 Ω	1-2 KΩ	47 KΩ	1-8 MΩ
36 Ω	1-3 KΩ	51 KΩ	2 MΩ
39 Ω	1-5 KΩ	56 KΩ	2-2 MΩ
43 Ω	1-6 KΩ	62 KΩ	2-4 MΩ
47 Ω	1-8 KΩ	68 KΩ	2-7 MΩ
51 Ω	2 KΩ	75 KΩ	3 MΩ
56 Ω	2-2 KΩ	82 KΩ	3-3 MΩ
62 Ω	2-4 KΩ	91 KΩ	3-6 MΩ
68 Ω	2-7 KΩ	100 KΩ	3-9 MΩ
75 Ω	3 KΩ	110 KΩ	4-3 MΩ
82 Ω	3-3 KΩ	120 KΩ	4-7 MΩ
91 Ω	3-6 KΩ	130 KΩ	5-1 MΩ
100 Ω	3-9 KΩ	150 KΩ	5-6 MΩ
110 Ω	4-3 KΩ	160 KΩ	6-2 MΩ
120 Ω	4-7 KΩ	180 KΩ	6-8 MΩ
130 Ω	5-1 KΩ	200 KΩ	7-5 MΩ
150 Ω	5-6 KΩ	220 KΩ	8-2 MΩ
160 Ω	6-2 KΩ	240 KΩ	9-1 MΩ
180 Ω	6-8 KΩ	270 KΩ	10 MΩ

TO-3 TRANSISTOR MOUNTINGS

Mica washer and two insulating bushes for TO-3 Power Transistors 1/3 per set

MAREX HEAT SINKS 5D



Undrilled, plain finish.

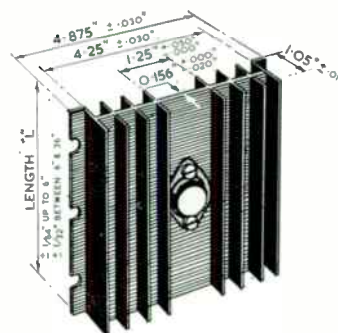
4½" × 2" 4/-

4½" × 4" 6/6

4½" × 3" 5/4

4½" × 6" 8/8

MAREX HEAT SINKS 10D



Undrilled, plain finish.

4½" × 2" 4/6

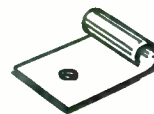
4½" × 4" 7/6

4½" × 3" 6/6

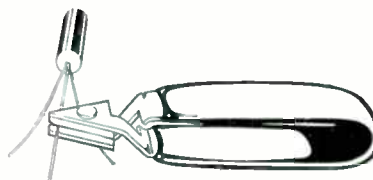
4½" × 6" 10/-

TRANSISTOR HEAT SINKS

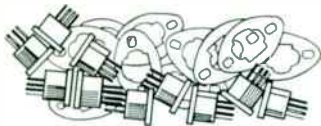
TWO FOR 9d



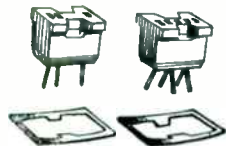
EAGLE HS.16 HEAT SINKS



Heavy gauge tapered copper jaw heat sinks clip on to the leads of heat-sensitive components to ensure that they are not damaged when soldering or de-soldering. 6/6



EAGLE TS.10. Kit of 10 Transistor Sockets, complete with mounting rings. 9/-



TRANSISTOR HOLDERS

3-pin 9d
4-pin 1/-

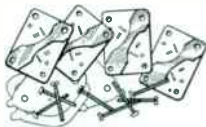
CRYSTAL HOLDERS

High quality nylon low loss.

10XJ 1/-
H6U 1/3



EAGLE PTS.4 4 pcs. standard power transistor sockets. 7/6



REDPOINT HEAT SINKS



TO.5

TO.5 CASE
1/- EACH

TO.18 CASE
1/- EACH



TO.18



DO.1 and 4 and SO.16 and 10

1/- each

TRADE AND EXPORT

Enquiries invited for the supply of all Equipment and Components in quantity. Bulk discounts available.

REDPOINT THERMOPATH 167 SILICON GREASE

A thermal joint compound for particular usage in semiconductor applications. It is stable over a wide temperature range and has a thermal transmission about 3.5 times that of ordinary silicone grease — this being due to a metallic oxide filler carefully compounded to ensure a low level of moisture and impurities together with stability in storage.

Typical Physical Properties

Colour: White
Specific gravity: 2.7
Electric strength 280VPM
50 mil gap

Volume Resistivity

At 20°C: 1.1×10^{15} -ohm cm.

At 177°C: 4.3×10^{13} ohm cm.

Thermal Conductivity

At 40°C: 16.7×10^{-4} cal/cm. sec. °C
Bleed: 7 days at 20°C: 0.7%
24 hours at 200°C: 0.8%

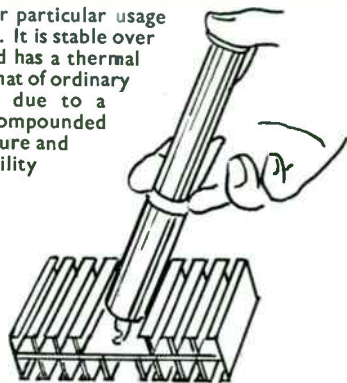
The material is dispensed by a 2 ml. syringe and feed tube so as to reduce to a minimum the wastage and staining that can occur with excess application of materials in this category.

Applications

For transistor mounting to aid heat transfer across imperfectly mating surfaces whilst preserving insulation barriers.

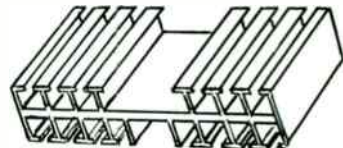
For shock absorption within semiconductor cases and permanent inclusion after encapsulation.

PRICE 6/- EACH



REDPOINT W-TYPE POWERSINK

The series W Power-sink from Redpoint is available in four standard lengths in extruded aluminium, black finish. The high performance thermal resistance is given in the table.



SPECIFICATION

Conditions:

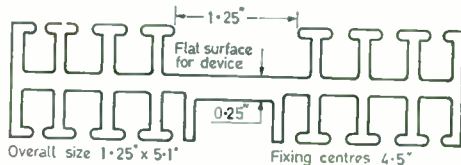
Thermal resistance is quoted for convection air only with one device centrally mounted. Extrusion black finish and vertical.

Mounting:

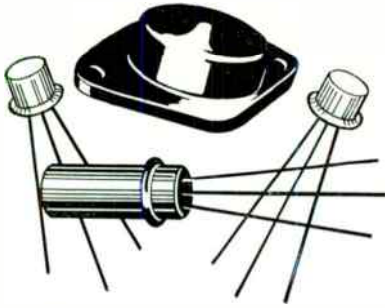
This can be achieved by the use of 4 BA screws mating with spire nuts which locate within the outer 'Boxes'. (Spire SNP 1302 is suitable.)

Normal Supply:

Bright finish without device seatings.



Code	Thermal Resistance °C/W	Length (in.)	Price
2W	1.9	2	4/6
3W	1.5	3	6/-
4W	1.3	4	7/6
6W	1.1	5	11/-



TRANSISTORS

BRAND NEW STOCK

GUARANTEED

2G301	4/-	2N1893	8/6	2N3135	5/-	2N3877A	8/-	2N5355	5/6
2G302	4/-	2N2147	14/6	2N3136	5/-	2N3900	7/6	2N5356	6/6
2G303	4/-	2N2148	12/6	2N3340	19/6	2N3900A	8/-	2N5365	9/6
2G306	8/6	2N2160	11/6	2N3349	26/-	2N3901	19/6	2N5366	6/6
2G308	6/-	2N2193	9/6	2N3390	7/6	2N3903	7/-	2N5367	11/6
2G309	6/-	2N2193A	10/-	2N3391A	6/-	2N3904	7/-	2N5457	7/6
2G371	3/-	2N2194A	4/6	2N3391	4/-	2N3905	7/6	2S102	6/6
2G374	4/-	2N2217	5/6	2N3392	4/-	2N3906	7/6	2S103	6/6
2G381	4/6	2N2218	6/6	2N3393	4/-	2N3974	10/6	2S104	6/6
2N404	4/6	2N2219	6/6	2N3394	4/-	2N3975	8/6	2S501	5/6
2N696	4/-	2N2220	5/-	2N3402	4/6	2N4056	21/6	2S502	5/6
2N697	4/-	2N2221	5/-	2N3403	4/6	2N4057	17/6	2S503	5/6
2N698	5/-	2N2222	6/-	2N3404	7/6	2N4058	5/6	3N128	18/6
2N706	2/6	2N2287	21/6	2N3405	9/-	2N4059	5/-	3N140	19/6
2N706A	2/6	2N2297	6/-	2N3414	5/6	2N4060	5/-	3N141	19/6
2N708	3/-	2N2302	12/6	2N3415	5/6	2N4061	4/6	3N142	19/6
2N718	5/-	2N2303	5/-	2N3416	7/6	2N4062	4/6	3N143	17/6
2N718A	6/-	2N2368	3/6	2N3417	7/6	2N4244	9/6	3N152	22/6
2N726	6/-	2N2369	3/6	2N3439	26/-	2N4245	8/6	40050	13/6
2N727	6/-	2N2369A	4/-	2N3440	19/6	2N4254	8/6	40250	10/-
2N743	4/6	2N2483	5/6	2N3570	17/6	2N4255	8/6	40251	19/6
2N744	4/6	2N2484	6/6	2N3572	17/6	2N4284	3/6	40253	8/6
2N753	4/6	2N2539	4/6	2N3605	5/6	2N4285	3/6	40254	10/6
2N914	3/6	2N2540	4/6	2N3606	5/6	2N4286	3/6	40309	8/-
2N916	3/6	2N2613	7/-	2N3607	4/6	2N4287	3/6	40310	11/6
2N918	6/-	2N2614	6/-	2N3662	7/6	2N4288	3/6	40311	9/6
2N919	4/-	2N2645	6/-	2N3663	7/6	2N4289	3/6	40312	12/6
2N929	4/6	2N2646	11/6	2N3702	3/6	2N4290	3/6	40314	9/6
2N930	5/6	2N2696	6/6	2N3703	4/6	2N4291	3/6	40315	9/6
2N987	10/6	2N2711	6/-	2N3704	4/6	2N4292	2/6	40316	12/6
2N1090	6/6	2N2712	6/-	2N3705	4/-	2N4433	5/6	40317	9/6
2N1091	6/6	2N2713	5/6	2N3706	4/6	2N4434	5/6	40319	13/6
2N1131	5/6	2N2714	6/-	2N3707	4/-	2N4435	5/6	40320	9/6
2N1132	6/6	2N2865	12/6	2N3708	3/6	2N5027	10/6	40323	8/6
2N1302	3/6	2N2904	7/-	2N3709	3/6	2N5028	11/6	40324	11/6
2N1303	3/6	2N2904A	8/-	2N3710	4/-	2N5029	9/6	40326	19/6
2N1304	4/6	2N2905	8/-	2N3711	4/-	2N5030	8/-	40329	7/-
2N1305	4/6	2N2905A	9/-	2N3713	30/-	2N5172	3/	40344	7/-
2N1306	5/-	2N2906	6/-	2N3714	35/-	2N5174	10/6	40347	8/6
2N1307	5/-	2N2906A	6/6	2N3721	7/6	2N5175	10/6	40348	12/6
2N1308	6/-	2N2907	8/-	2N3819	7/-	2N5176	9/-	40360	11/-
2N1309	6/-	2N2907A	8/6	2N3820	21/6	2N5232A	6/-	40361	12/6
2N1420	5/6	2N2923	3/6	2N3823	22/6	2N5245	12/6	40362	13/6
2N1507	5/6	2N2924	3/6	2N3854	5/6	2N5246	12/6	40370	7/6
2N1525	7/6	2N2925	3/6	2N3854A	5/6	2N5249	13/6	40406	14/6
2N1526	7/6	2N2926		2N3855	5/6	2N5249A	13/6	40408	12/6
2N1527	7/6	Green	2/9	2N3855A	6/-	2N5265	65/-	40467	16/6
2N1605	9/6	Yellow	2/6	2N3856	6/-	2N5266	55/-	40467A	14/6
2N1613	5/-	Orange	2/6	2N3856A	7/-	2N5267	52/6	40468	16/6
2N1631	8/6	2N3011	6/-	2N3858	5/-	2N5305	7/6	40468A	14/6
2N1632	8/6	2N3014	6/6	2N3858A	6/-	2N5306	8/-	AC107	4/-
2N1637	8/6	2N3053	5/6	2N3859	5/6	2N5307	7/6	AC126	6/-
2N1638	7/6	2N3054	11/-	2N3859A	6/6	2N5308	7/6	AC127	5/-
2N1639	7/6	2N3055	15/-	2N3860	6/-	2N5309	12/6	AC128	4/-
2N1711	5/-	2N3133	6/-	2N3866	30/-	2N5310	8/6	AC154	4/6
2N1889	6/6	2N3134	6/-	2N3877	8/-	2N5354	5/6	AC165	4/-

TRANSISTORS (continued)

AC167	4/6	BC118	6/6	BDY61	36/-	BFY56	9/6	GET874	3/-
AC176	5/-	BC121	4/-	BDY62	27/6	BFY75	6/-	GET880	6/-
AC187	12/6	BC122	4/-	BF115	5/-	BFY76	8/6	GET881	4/6
AC188	7/6	BC125	11/-	BF117	9/6	BFY77	11/6	GET887	4/-
ACY17	5/6	BC126	11/-	BF163	7/6	BFY90	13/6	GET889	4/6
ACY18	5/-	BC140	7/6	BF167	5/-	BFW58	5/6	GET890	4/6
ACY19	5/-	BC145	13/6	BF173	6/6	BFW59	5/-	GET896	4/6
ACY20	5/-	BC147	3/6	BF177	6/6	BFW60	5/-	GET897	4/6
ACY21	5/-	BC148	3/-	BF178	12/6	BPX25	37/-	GET898	4/6
ACY22	4/-	BC149	3/6	BF179	14/6	BPX29	36/-	MAT100	6/-
ACY28	4/-	BC152	3/6	BF180	7/-	BPY10	29/-	MAT101	6/-
ACY39	13/3	BC157	4/-	BF181	6/6	BSX19	3/6	MAT120	6/-
ACY40	4/-	BC158	3/6	BF182	6/6	BSX20	3/6	MAT121	6/-
ACY41	5/-	BC159	4/-	BF184	6/6	BSX21	7/6	MJ400	21/6
ACY44	8/-	BC160	12/6	BF185	8/6	BXS26	9/-	MJ420	22/6
AD140	8/-	BC167	3/-	BF194	4/6	BSX27	9/6	MJ421	22/6
AD149	11/6	BC168B	2/9	BF195	5/6	BSX28	6/6	MJ430	20/6
AD150	12/6	BC168C	3/-	BF196	8/6	BSX60	16/6	MJ440	19/-
AD161	7/6	BC169B	2/9	BF197	8/6	BSX61	12/6	MJ480	19/6
AD162	7/6	BC169C	3/-	BF198	8/6	BSX76	4/6	MJ481	25/-
AF106	8/6	BC170	3/6	BF200	10/6	BSX77	5/6	MJ491	27/6
AF114	5/-	BC171	3/6	BF224	6/-	BSX78	5/6	MJ490	20/-
AF115	6/-	BC172	3/6	BF225	6/-	BSY10	5/6	MJ1800	43/6
AF116	5/-	BC173	3/9	BF237	6/6	BSY11	5/6	MJE340	12/6
AF117	5/-	BC175	5/6	BF238	6/6	BSY24	3/-	MJE520	17/6
AF118	12/6	BC182	4/6	BF244	7/6	BSY25	3/-	MJE521	17/6
AF119	4/-	BC182L	4/-	BFX12	4/6	BSY26	3/6	MPF102	8/6
AF124	4/6	BC183	4/6	BFX13	4/6	BSY27	3/6	MPF103	7/6
AF125	4/-	BC183L	3/6	BFX29	7/6	BSY28	3/6	MPF104	7/6
AF126	4/-	BC184	4/6	BFX30	9/-	BSY29	3/6	MPF105	7/6
AF127	3/6	BC184L	4/-	BFX43	7/6	BSY32	5/-	MPS3638	6/6
AF139	7/6	BC212L	4/6	BFX44	7/6	BSY36	5/-	NKT0013	9/6
AF178	11/-	BCY10	5/6	BFX68	13/6	BSY37	5/-	NKT124	8/6
AF179	14/6	BCY12	5/6	BFX68A	13/6	BSY38	4/6	NKT125	5/6
AF180	10/6	BCY30	5/6	BFX84	6/-	BSY39	4/6	NKT126	5/6
AF181	8/6	BCY31	5/6	BFX85	7/-	BSY40	6/6	NKT128	5/6
AF186	11/-	BCY32	7/6	BFX86	6/-	BSY51	6/6	NKT135	5/6
AF239	8/6	BCY33	4/-	BFX87	6/-	BSY52	6/6	NKT137	6/6
AF211	6/6	BCY34	4/6	BFX88	5/-	BSY53	7/6	NKT210	6/-
AF279	9/6	BCY38	4/6	BFX89	12/6	BSY54	8/-	NKT211	6/-
AF280	12/6	BCY39	8/6	BFX92A	12/6	BSY56	18/-	NKT212	6/-
AFZ12	8/6	BCY40	7/6	BFX93	15/-	BSY65	4/6	NKT213	6/-
ASY26	5/-	BCY42	3/-	BFY10	6/6	BSY78	9/6	NKT214	4/6
ASY27	7/6	BCY43	3/-	BFY11	8/6	BSY79	9/-	NKT215	4/6
ASY28	5/6	BCY54	6/6	BFY12	5/6	BSY82	10/6	NKT216	7/6
ASY29	5/6	BCY58	4/6	BFY13	6/6	BSY83	12/6	NKT217	8/6
ASY36	5/-	BCY59	4/6	BFY17	4/6	BSY84	11/6	NKT219	6/-
ASY50	5/-	BCY60	19/6	BFY18	6/6	BSY85	13/6	NKT223	5/6
ASY51	6/6	BCY70	4/-	BFY19	6/6	BSY87	10/6	NKT224	5/-
ASY53	5/-	BCY71	8/6	BFY20	12/6	BSY90	11/6	NKT225	4/6
ASY54	5/-	BCY72	3/6	BFY21	8/6	BSY95A	2/6	NKT229	6/-
ASY62	5/-	BCZ10	5/6	BFY22	6/-	BSV41	8/6	NKT237	7/-
ASY63	3/6	BCZ11	7/6	BFY23	7/6	BSW70	5/6	NKT238	5/-
ASY72	5/-	BD116	22/6	BFY24	9/-	BUY10	12/6	NKT240	5/6
ASY83	5/-	BD121	13/-	BFY25	5/-	D16P1	7/6	NKT241	5/6
ASY86	6/6	BD123	16/6	BFY26	4/-	D16P2	8/-	NKT242	4/-
ASZ20	7/6	BD124	12/-	BFY29	10/-	D16P3	7/6	NKT244	3/6
ASZ21	8/6	BD131	19/6	BFY30	10/-	D16P4	8/-	NKT245	4/-
AUY10	30/-	BDI32	19/6	BFY36	4/-	GET102	6/-	NKT261	4/-
BC107	3/-	BDY10	27/6	BFY37	5/-	GET103	6/-	NKT262	4/-
BC108	3/-	BDY11	37/6	BFY41	10/-	GET113	4/-	NKT264	4/-
BC109	3/-	BDY17	37/6	BFY43	12/6	GET114	4/-	NKT271	4/-
BC113	5/6	BDY18	49/6	BFY50	4/6	GET116	10/6	NKT272	4/-
BC114	7/6	BDY19	62/6	BFY51	4/-	GET118	4/-	NKT274	4/-
BC115	6/6	BDY20	22/6	BFY52	4/6	GET119	4/-	NKT275	4/-
BC116	12/6	BDY38	19/6	BFY53	4/6	GET120	10/6	NKT278	3/6
BC116A	7/6	BDY60	36/-	BFY56A	11/6	GET873	2/6	NKT279	3/6

TRANSISTORS (continued)

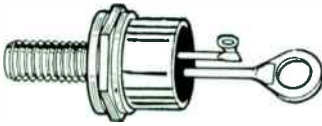
NKT281	5/6	NKT80111	15/6	OC46	3/-	OC201	9/6	TIS48	3/6
NKT401	17/6	NKT80112	19/6	OC70	3/-	OC202	12/6	TIS49	3/6
NKT402	18/-	NKT80113	22/6	OC71	2/6	OC203	8/6	TIS50	4/6
NKT403	15/-	NKT80211	18/6	OC72	2/6	OC204	8/6	TIS51	3/6
NKT404	12/6	NKT80212	18/6	OC73	4/6	OC205	8/6	TIS52	3/6
NKT405	15/-	NKT80213	18/6	OC74	6/6	OC207	12/6	TIS53	6/-
NKT451	12/6	NKT80214	18/6	OC75	4/6	ORP71	8/6	TIS60	6/-
NKT452	12/6	NKT80215	18/6	OC76	4/6	ORP12	10/-	TIS61	6/-
NKT453	9/6	NKT80216	18/6	OC77	6/-	ORP60	10/-	XAI104	2/-
NKT603F	6/6	OC19	7/6	OC78	3/-	ORP61	10/-	XAI123	3/-
NKT613F	6/6	OC20	15/-	OC81	4/-	P346A	4/6	XAI124	3/-
NKT674F	6/-	OC22	10/-	OC81D	4/6	ST140	4/-	XAI125	3/-
NKT677F	6/-	OC23	10/-	OC81M	2/6	ST141	6/-	XAI126	3/-
NKT713	5/-	OC24	11/6	OC81DM	2/6	TIP29A	13/6	XBI12	2/6
NKT717	8/6	OC25	10/-	OC82	4/-	TIP30A	15/-	XCI141	7/-
NKT734	5/6	OC26	6/6	OC82D	3/-	TIP31A	16/6	ZTX107	3/6
NKT736	7/-	OC28	12/6	OC83	5/-	TIP32A	19/6	ZTX108	3/6
NKT773	5/-	OC30	12/6	OC84	5/-	TIS34	12/6	ZTX109	3/6
NKT781	6/-	OC35	8/-	OCI23	4/6	TIS34A	17/6	ZTX300	3/6
NKT10339	6/6	OC36	12/6	OCI39	6/6	TIS43	8/-	ZTX302	4/6
NKT10419	6/-	OC38	10/6	OCI40	6/6	TIS44	2/6	ZTX303	4/6
NKT10439	7/6	OC41	4/6	OCI70	6/-	TIS45	3/6	ZTX304	6/6
NKT10519	6/6	OC42	5/-	OCI71	6/-	TIS46	3/6	ZTX500	4/6
NKT20329	9/6	OC44	4/-	OC200	6/6	TIS47	3/6	ZTX501	5/-
NKT20339	7/6	OC45	2/6						

INTEGRATED CIRCUITS ALL FULLY GUARANTEED AT NEW LOW PRICES

RCA		MOTOROLA	1-9	10+	25+	MULLARD LINEAR		
CA3000	39/6	MC724P	17/6	15/-	13/6	TAA241	32/6	
CA3005	25/6	MC788P	19/6	17/6	16/-	TAA242	85/-	
CA3007	57/6	MC789P	17/6	15/-	13/6	TAA243	30/-	
CA3011	16/6	MC790P	27/6	24/6	23/-	TAA263	15/6	
CA3012	19/6	MC792P	17/6	15/-	13/6	TAA293	19/6	
CA3013	24/-	MC799P	17/6	15/-	13/6	TAA300	35/-	
CA3014	27/-	MC1303P	57/6	—	—	TAA310	25/-	
CA3018	19/6	MC1304P	79/6	—	—	TAA320	14/6	
CA3018A	25/-	MC708P	59/6	—	—	TAA350	35/-	
CA3019	19/-	MC7490P	69/6	—	—	TAA435	29/6	
CA3020	27/-	MC788P	19/6	—	—	TAA521	26/6	
CA3020A	37/-	MC838P	130/-	—	115/-	TAA522	72/-	
CA3021	34/-	MC1552G	89/6	—	79/6	TAA530	99/-	
CA3022	27/6	MC1435P	65/-	—	59/6	TAA811	89/-	
CA3023	26/-	FAIRCHILD	1-5	6-11	12+	50+	TAB101	19/6
CA3026	21/-	L900	9/9	9/-	8/-	—	TAD100	39/6
CA3028A	16/6	L914	9/9	9/-	8/-	—	TAD110	39/6
CA3028B	24/-	L923	12/6	11/9	11/-	—		
CA3029	19/6	L702C	36/6	32/6	29/6	—		
CA3029A	38/6	L709C	21/-	19/6	18/-	17/-		
CA3030	31/-	L710C	21/-	19/6	18/-	17/-		
CA3035	27/-	L711C	21/-	19/6	18/-	17/-		
CA3036	16/6	L716C	56/-	50/-	—	—		
CA3039	19/6	TEXAS TTL			MULLARD TTL		PLESSEY	
CA3041	25/-	SN7400N	18/-		FJH101	17/6	SL402A	42/6
CA3042	25/-	SN7401N	18/-		FJH121	17/6	SL403A	42/6
CA3043	29/-	SN7402N	18/-		FJH141	17/6	SL701C	29/6
CA3044	27/-	SN7403N	18/-		FJH161	17/6	SL702C	29/6
CA3045	27/-	SN7404N	19/3		FJH171	18/3		
CA3046	19/6	SN7405N	19/3		FJH221	17/6		
CA3047	29/-	SN7410N	18/-		FJJ101	27/6		
CA3048	45/-	SN7413N	22/-		FJJ121	37/6		
CA3049	35/-	SN7420N	18/-		FJJ141	62/6		
CA3050	39/6	SN7430N	18/-		FJJ191	37/6		
CA3051	28/-	SN7440N	18/-		FJJ251	62/6		
CA3052	36/6				FJY101	16/-		
CA3053	12/-						GENERAL ELECTRIC	
CA3054	50/-						PA222	87/6
CA3055	24/-						PA230	22/6
CA3059	27/-						PA234	21/6
CA3064	35/-						PA237	38/-
							PA246	57/6
							PA424	51/-

Data Sheets, all 1/- per type, except L900/914/923 and Plessey, 2/6
 8 Pin To-5 I.C. Holders, 10/6
 14 Pin Dual-in-Line I.C. Holders, 11/-
 16 Pin Dual-in-Line I.C. Holders, 12/6

THYRISTORS SILICON CONTROLLED RECTIFIERS



CRS1/05	50 P.I.V.	1 amp.	5/-	} TO5 cases
CRS1/10	100 P.I.V.	1 amp.	5/6	
CRS1/20	200 P.I.V.	1 amp.	7/6	
CRS1/30	300 P.I.V.	1 amp.	8/-	
CRS1/35	350 P.I.V.	1 amp.	8/6	
CRS1/40	400 P.I.V.	1 amp.	9/6	
CR71	100 P.I.V.	7 amp.	11/-	
CR72	200 P.I.V.	7 amp.	13/-	
CR73	300 P.I.V.	7 amp.	14/-	
BTY87/400	400 P.I.V.	7 amp.	19/6	
CRS3/05	50 P.I.V.	3 amp.	6/-	
CRS3/10	100 P.I.V.	3 amp.	7/6	
CRS3/20	200 P.I.V.	3 amp.	8/-	
CRS3/30	300 P.I.V.	3 amp.	9/-	
CRS3/40	400 P.I.V.	3 amp.	10/-	
TRS/10	100 P.I.V.	5 amp.	11/-	
TRS/20	200 P.I.V.	5 amp.	13/-	
TRS/40	400 P.I.V.	5 amp.	15/-	
BTY84	100 P.I.V.	12 amp.	15/6	
BTY91/600R	600 P.I.V.	11.5 amp.	35/6	
TIC47	200 P.I.V.	-6 amp.	6/6	

SILICON RECTIFIERS (BY100 EQUIVALENT)



Brand new and guaranteed. 800 P.I.V.
750 mA. 3/6 each
36/- dozen

FERRANTI HIGH QUALITY SILICON RECTIFIERS

ZS20B 2/6 each

STC THERMISTORS TYPE R

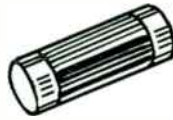
Directly heated bead type thermistor housed in evacuated glass bulb, designed for operation at very low power levels particularly suitable for use in transistor circuits.

Safe power dissipation: 3 mW (design centre rating). Power sensitivity: 62.5°C/mW. Dissipation constant: 0.016 mW./°C. R53; 5000 Ω; (120 Ω at 3V.). 25/- Each

MODEL A.25. Resistance 200 KΩ at 20%
Resistance at 60 mW dissipation 575Ω.
15/9 each

STC BRIMISTORS

STC Brimistors are negative temperature coefficient resistors suitable for current surge-suppression in circuits using variable-resistance devices such as valves, projector lamps, etc. They are essentially high-power thermistors, and as such can be used in many thermistor-type applications.



Type C



Type CZA



Type CZ

Code	Dimen- sions Inches	INITIAL RESISTANCE (ohms)			Emax. Volts (20°C)	Max. Operating Current Amperes	Price each
		0°C	20°C	50°C			
CZ1, CZ1A	1 1/4 x 7/16	8,300	3,800	1,400	25	0.3	4/-
CZ2	7/8 x 1/2	12,500	5,500	1,850	30	0.3	4/-
CZ3	7/8 x 7/8	3,500	1,500	560	13.5	0.2	4/-
C4, CZ4, CZ4A	1 1/2 x 7/8	1,700	800	320	14.7	0.8	5/9
CZ6	1 1/2 x 3/8	6,000	3,000	1,120	23	0.45	4/-
CZ8A	3/4 x 5/16	3,700	1,600	620	15.6	0.3	4/-
CZ9A	3/4 x 7/16	800	350	130	7.8	1.0	5/9
CZ10	7/8 x 3/8	26,000	11,000	4,000	19.5	0.075	4/-
CZ11	1 1/4 x 3/8	280	140	65	5.8	1.5	5/9
CZ12	1 1/2 x 7/8	240	120	53	6.4	2.5	5/9
CZ12A	1 1/2 x 7/8	240	120	53	6.4	2.5	5/9
CZ13A	7/8 x 3/8	850	400	160	9.0	0.8	4/-
CZ14	1 1/2 x 3/8	470,000	167,000	46,000	125.0	0.05	4/-
CZ19	1 1/2 x 7/8	1,700	800	320	14.7	0.8	4/-



THERMISTORS

These special resistance elements have a very high negative temperature coefficient of resistance, making them suitable as protective elements in a wide range of circuits. Axial end wires.

Type	Equivalent	Res. Cold	Res. Hot	Dimensions	Price each
TH.1	VA1015	930 Ω	42 Ω at .3 Amp	L. 1.45", Dia. .55"	3/6
TH.2	VA1005 CZ1	3.9 kΩ	44 Ω at .3 Amp	L. 1.45", Dia. .35"	2/9
TH.3	VA1026	400 Ω	28 Ω at .3 Amp	L. .9", Dia. .55"	2/6
TH.5	VA1033	4 Ω	.3 Ω at 1 W (max.)	Dia. .34", H. .07"	3/-
TH.6	VA1010	9.6 kΩ	240 Ω at 100 mA	L. .8", Dia. .2"	2/6



CADMIUM SULPHIDE PHOTO CELLS

MKY-251

A.E.I. PX1/1 12/6 A.E.I. PX1/2 15/-
Mullard ORP12 200 mW. up to 110V. 10/-
MRK MKY-251 500 mW. up to 200V. 7/6



PHOTO TRANSISTOR OCP71

Average Gain: 50. Max. Volts: -25. Max. Current: 20 mA. Spectral Response: 1.55μ. Cut Off: 2μ. Dissipation: 100 m watt 25°C. Sensitivity: 1.5 to 4 mA with 75 ft. candle at -2 V Vc. 8/6

LOW POWER RECTIFIERS AND DETECTORS

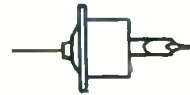
IN459	200 P.I.V.	40 mA	2/6
IN914	75 P.I.V.	75 mA	1/6
IN916	75 P.I.V.	75 mA	1/6
IS120	50 P.I.V.	20 mA	3/-
IS121	150 P.I.V.	20 mA	3/6
IS130	50 P.I.V.	200 mA	2/6
IS131	100 P.I.V.	200 mA	2/6
IS132	200 P.I.V.	200 mA	3/-
AA119	45 P.I.V.	35 mA	2/-
AAZ13	8 P.I.V.	100 mA	2/-
AAZ15	100 P.I.V.	250 mA	2/6
AAZ17	75 P.I.V.	150 mA	2/6
BA100	60 P.I.V.	90 mA	3/-
BA115	150 P.I.V.	2 mA	1/6
BAX13	40 P.I.V.	75 mA	2/6
BAX16	150 P.I.V.	200 mA	2/6
BAY31	15 P.I.V.	100 mA	1/6
BAY38	50 P.I.V.	115 mA	2/6
OA5	100 P.I.V.	115 mA	2/6
OA6	60 P.I.V.	115 mA	4/6
OA7	25 P.I.V.	140 mA	3/-
OA9	30 P.I.V.	115 mA	2/6
OA47	25 P.I.V.	110 mA	1/6
OA70	22.5 P.I.V.	110 mA	1/6
OA73	30 P.I.V.	50 mA	2/-
OA79	30 P.I.V.	50 mA	1/9
OA81	115 P.I.V.	60 mA	1/6
OA85	115 P.I.V.	150 mA	1/6
OA90	20 P.I.V.	10 mA	1/6
OA91	90 P.I.V.	50 mA	1/6
OA95	90 P.I.V.	50 mA	1/6
OA182	80 P.I.V.	150 mA	2/-
OA200	50 P.I.V.	160 mA	2/-
OA202	150 P.I.V.	165 mA	1/-
IN4148	000 P.I.V.	000 mA	1/6
ZS20B	120 P.I.V.	270 mA	2/6

SILICON ZENER DIODES



400mW RANGE

All voltages from 3.3V to 33V
3/- each



1.5 WATT ZL SERIES

All voltages from 3.9V to 100V
4/- each

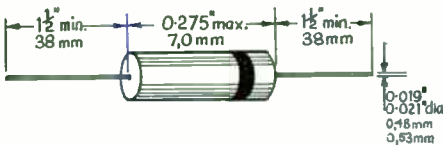


100 WATT ZS SERIES

All voltages from 3.9V to 100V
5/- each

VOLTAGE-VARIABLE CAPACITANCE DIODES

For use in radio/TV tuners and general purpose applications (Silicon)



Variable capacitance diodes with high Q factor.

Capacity variable approximately $\sqrt{\frac{1}{V_{app}}}$

when biased in the reverse direction.

Tolerance on capacity $\pm 20\%$.

GENERAL PURPOSE UNMARKED SIGNAL DIODES

Ideal for experimenters

6/- doz.

Code	Application	V(cz) min. V	c pF at V _Z V	Useful Capacitance Ratio	Outline	Price each
BA110	UHF TV tuner VHF TV tuner FM tuner	30	10	2	DO-7	7/-
BA111	FM tuner AFC	20	55	2		8/6
BA112	General purpose	20	100	2		15/9
BA141	UHF TV tuner FM tuner	30	12	3		18/9
BA142	VHF TV tuner	30	12	3		14/3

ZENER REFERENCE DIODES

TYPE IN429. 6.2 volt $\pm 5\%$. 200 mW $\pm 1\%$
stability 7/6 each

S.T.C. ZENER DIODES

1 WATT RANGE



**SPECIAL OFFER:- BRAND
NEW AND GUARANTEED**

List Price 17/6 each

Z2A	24CF	2.4 VOLT
Z2A	30CF	2.7 VOLT
Z2A	30CF	3.0 VOLT
Z2A	36CF	3.9 VOLT
Z2A	43CF	4.3 VOLT
Z2A	130CF	13 VOLT
Z2A	160CF	16 VOLT
Z2A	180CF	18 VOLT
Z2A	200CF	20 VOLT
Z2A	300CF	30 VOLT
Z2A	330CF	33 VOLT

ALL 5/- EACH

SIEMENS BRIDGE

B40 C1500 (full-wave bridge 40VRMS 1.8 amp.)
9/6



ENCAPSULATED BRIDGE RECTIFIER SI-60

600 P.I.V. 1 amp.

10/6 each

TRIACS

SC41A	6 amp. 100 P.I.V.	..	..	..	..	18/-
SC41B	6 amp. 200 P.I.V.	..	..	..	..	21/-
SC41D	6 amp. 600 P.I.V.	..	..	..	..	27/6

SILICON POWER DIODES



IN4001	1 amp.	50 P.I.V.	Plastic	2/9
IN4002	1 amp.	100 P.I.V.	Plastic	3/-
IN4003	1 amp.	200 P.I.V.	Plastic	3/3
IN4004	1 amp.	400 P.I.V.	Plastic	3/6
IN4005	1 amp.	600 P.I.V.	Plastic	3/9
IN4006	1 amp.	800 P.I.V.	Plastic	4/-
IN4007	1 amp.	1000 P.I.V.	Plastic	4/6
PL4001	1 1/2 amp.	50 P.I.V.	Plastic	2/9
PL4002	1 1/2 amp.	100 P.I.V.	Plastic	3/-
PL4003	1 1/2 amp.	200 P.I.V.	Plastic	3/3
PL4004	1 1/2 amp.	400 P.I.V.	Plastic	3/6
PL4005	1 1/2 amp.	600 P.I.V.	Plastic	3/9
PL4006	1 1/2 amp.	800 P.I.V.	Plastic	4/-
PL4007	1 1/2 amp.	1000 P.I.V.	Plastic	4/9
IS401	3 amp.	50 P.I.V.	Stud	4/-
IS402	3 amp.	100 P.I.V.	Stud	4/3
IS403	3 amp.	200 P.I.V.	Stud	4/6
IS404	3 amp.	400 P.I.V.	Stud	5/-
IS405	3 amp.	600 P.I.V.	Stud	5/6
IS406	3 amp.	800 P.I.V.	Stud	6/-
IS407	3 amp.	1000 P.I.V.	Stud	6/6
BYZ10	6 amp.	800 P.I.V.	Stud	7/-
BYZ11	6 amp.	600 P.I.V.	Stud	6/6
BYZ12	6 amp.	400 P.I.V.	Stud	6/-
BYZ13	6 amp.	200 P.I.V.	Stud	5/-
SL103K	10.5 amp.	100 P.I.V.	Stud	12/6
SL203K	10.5 amp.	200 P.I.V.	Stud	13/6
SL403K	10.5 amp.	400 P.I.V.	Stud	15/-
SL603K	10.5 amp.	600 P.I.V.	Stud	16/6
SL803K	10.5 amp.	800 P.I.V.	Stud	19/6
SL1003K	10.5 amp.	1000 P.I.V.	Stud	23/-
SL1203K	10.5 amp.	1200 P.I.V.	Stud	30/-
SL1403K	10.5 amp.	1400 P.I.V.	Stud	40/-
SK103K	17.5 amp.	100 P.I.V.	Stud	15/-
SK203K	17.5 amp.	200 P.I.V.	Stud	16/9
SK403K	17.5 amp.	400 P.I.V.	Stud	19/-
SK603K	17.5 amp.	600 P.I.V.	Stud	21/-
SK803K	17.5 amp.	800 P.I.V.	Stud	26/-
SK1003K	17.5 amp.	1000 P.I.V.	Stud	32/6
SK1203K	17.5 amp.	1200 P.I.V.	Stud	43/6

SILICON POWER RECTIFIERS MISCELLANEOUS

OA210	400 P.I.V.	500 mA	3/6
BY100	800 P.I.V.	500 mA	3/6
RTCD	100 P.I.V.	650 mA	5/6
GJ7M	70 P.I.V.	1 amp.	3/-
BYZ16	1000 P.I.V.	amp.	7/6
STC	150 P.I.V.	25 amp.	10/-
STC	700 P.I.V.	100 amp.	35/-
IN4007	1000 P.I.V.	1 amp.	4/6
IS010	50 P.I.V.	1.5 amp.	3/-
IS020	100 P.I.V.	1.5 amp.	3/6
IS021	200 P.I.V.	1.5 amp.	4/-
IS025	600 P.I.V.	1.5 amp.	5/-
IS113	400 P.I.V.	400 mA	3/-
IS115	600 P.I.V.	400 mA	4/6
BXY10	800 P.I.V.	360 mA	5/-
BY126	000 P.I.V.	000 mA	5/-
BY125	000 P.I.V.	mA	5/-
FST3/4	400 P.I.V.	1.5 amp.	3/-
FST3/8	800 P.I.V.	1.25 amp.	4/-
DOS10R	50 P.I.V.	10 amp.	8/-
BYZ15	200 P.I.V.	40 amp.	35/-

IOR INTERNATIONAL RECTIFIER



GERMANIUM DIODES

Complete line for entertainment and most industrial applications

Miniature, hermetically sealed construction assures optimum operation over a wide range of humidity temperature and other environmental extremes.

Cat. No.	Max. DC Inverse Voltage	Price Each Net
IN34A.C	60	4/-
IN60.C	40	4/-
IN64.C	25	4/-
IN82A.C	25	9/6
IN87A.C	30	4/6



SILICON "TOP HAT" RECTIFIERS

... Quality standard of the industry! Hermetically sealed, easy to install

These hermetically sealed replacement rectifiers are specifically designed for speedy installation in radio-TV, hi-fi, intercoms, phonographs, and other audio and control circuits. Where high humidity or other severe environmental conditions are encountered, the hermetically sealed SD-500 and SD-600 provides real protection, and long, dependable operation.

Ratings

Cat. No.	Peak Reverse Voltage	DC OUTPUT mA		Price Net
		Res. Load	Cap. Load	
SD500.C	400	750	650	6/8
SD600.C	600	750	650	7/6



"5A" SERIES SILICON RECTIFIERS

The Universal, All-Circuit High Power Silicon Rectifier

The "5A" combines high power capability (to 1000 mA) and peak surge current capacity to 50 Amps, (about 10 times standard units) in a rugged miniaturized package. It will replace virtually any rectifier, selenium or silicon, in all circuits drawing up to 1000 mA d.c., including TV, radio, hi-fi systems, filament supplies and motor control.

Ratings @ 40°C

Cat. No.	Peak Reverse Voltage	RMS Input Volts*	DC Output Current, mA	Max. Surge Current Amps	Price Net
5A4D.C	400	140	1000	50	6/8
5A6D.C	600	210	1000	50	7/6

*Capacitive load



"PLUG IN" ALL-CIRCUIT SILICON RECTIFIER

Fast, easy insertion into clip-type sockets!

Ruggedized silicon diffused junction "plug-in" rectifiers may be rapidly snapped into radio-TV, motor control, audio-amplifier, industrial power supply and other circuits utilizing clip-type rectifier holders.

Cat. No.	Peak Reverse Voltage	RMS Input Volts	DC OUTPUT mA @ 50°C		Max. Surge Current, Amps	Price Each Net
			Res. Load	Cap. Load		
5MA4-D	400	140	1000	800	50	9/2

IOR INTERNATIONAL RECTIFIER

The hermetically sealed rectifiers on this page are conservatively rated if mounted on a chassis or cooling fin of 3" x 3" x 1/8" (copper or aluminium). Transient voltages must not exceed the rated PRV of the device selected. The use of transient voltage suppressors, such as Klip-Sels, to limit the transient voltages is recommended.



STUD MOUNTED 3 AMP SERIES

For commercial applications where temperature does not exceed 50°C (125°F) RMS Input, Volt

Cat. No.	Peak Reserve Voltage	Resist Load	Cap. Load	DC Output Amps	Price Each Net
3F10-DC	100	70	35	3	8/6
3F20-DC	200	140	70	3	10/-
3F40-DC	400	280	140	3	17/-



STUD MOUNTED 20-35 AMP SERIES

Cat. No.	Peak Reverse Voltage	Max. RMS Load Volts	DC Output Current, Amps	Price Each Net
20HB5-DC	50	35	20 to 30	9/2
20HB20-DC	200	140	(Dependent on Type of Cooking and Heat Sink Used).	13/6
20HB40-DC	400	280		30/8



SILICON BRIDGE RECTIFIER ASSEMBLIES

Pre-engineered and completely assembled single phase bridge rectifier stacks. The 1.8 amp series are miniature assemblies, completely insulated. All diodes and rectifiers used are hermetically sealed to withstand extremes of temperature and humidity.

Rectified DC Output, (Amp).

Cat. No.	Peak Reverse Voltage, Volts	Crest Working Voltage, (Recom.) Volts	Typical Output Volts	Natural Convection Cooled @ 50°C @ 100°C	Price Each Net
10DB2A-C	200	95	94	1.8	£15.50
10DB4A-C	400	190	210	1.8	£17.6
10DB6A-C	600	280	315	1.8	£110.6

ELECTRONIC RANGE SELENIUM RECTIFIERS

Circuits and Dimensions for all Selenium Rectifiers

These full wave bridge rectifiers are designed for use in numerous electronic and instrumentation applications. They will provide stable voltage, occupy a minimum of space, are conservatively rated and easy to install.

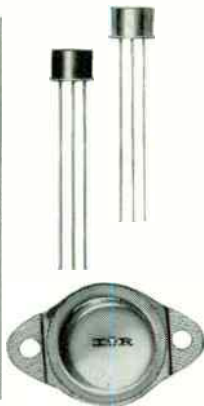
Cat. No.	Max. DC MA	Max. RMS Volts	Dimensions		MD Max.	Price Each Net
			A	B		
Q4B	100	130	.67"	.67"	1 5/16"	14/10
B1B	300	25	1.2"	1.2"	1 3/8"	11/8
C1B	600	25	1.5"	1.5"	1 3/8"	14/6

DUAL DIODES

Selenium Diodes are used in TV and industrial devices where small size and high reliability is required. Dual diodes are for TV Phase Detector Circuits. These diodes are of superior quality and packaged for easy identification. Connecting diagram and complete interchangeability table is supplied with each unit.

Cat. No.	Type	Equivalent to		Price Each Net
		GE	IT & T	
DD04-C	Com. Cathode	6GC1	K1615	5/6
DD05-C	Ser. Connect.	6GDI	K1616	5/6

INTERNATIONAL RECTIFIER TRANSISTORS



PNP GERMANIUM AUDIO AMPLIFIER TRANSISTOR TRO4-C

A general purpose PNP type audio transistor for all voltage supplies of 6 volts or less.

$I_{CB} = 10\mu A$ at 15 volts.

h_{fe} current transfer ratio = 30—180.

V_{CB} collector to emitter voltage = 15 volts.

Case type TO-5, SO-3, SO-44, SO-44A.

Cat. No. TRO4-C Price each net 5/3

NPN GERMANIUM UNIVERSAL RF TRANSISTOR TRO8-C

A general purpose NPN type RF transistor for use in mixer-oscillator, converter and RF amplifier circuits.

$I_{CB} = 10\mu A$ maximum at 15 volts.

h_{fe} current transfer ratio = 25—35.

f_{α} cut-off frequency = 5.0 MHz.

Case type TO-5, SO-3, SO-44, SO-44A.

Cat. No. TRO8-C Price each net 9/3

PNP GERMANIUM AUDIO HIGH POWER TRANSISTOR TRO1-C

Audio frequency power transistor suitable for use in automobile radios and amplifier output stages.

I_C maximum continuous collector current = 7 amps.

h_{fe} current transfer ratio = 30—120.

V_{CB} d.c. collector to base voltage = 60 volts.

P_C collector dissipation = 10 watts max. (50°C base temperature).

Case type TO-3 (Diamond), SO-5A, SO-5B, NTO-1.

Cat. No. TRO1-C Price each net 11/6

PNP GERMANIUM AUDIO AMPLIFIER TRANSISTOR TRO5-C

A general purpose PNP type audio transistor for all voltage supplies of 12 volts or less.

$I_{CB} = 10\mu A$ at 25 volts.

h_{fe} current transfer ratio = 30—180.

V_{CE} collector to emitter voltage = 25 volts.

f_{α} cut-off frequency = 2.0 MHz.

Case type TO-5, SO-3, SO-44, SO-44A.

Cat. No. TRO5-C Price each net 7/-

NPN AUDIO AMPLIFIER TRANSISTOR TRO9-C

A general purpose NPN type audio transistor for radios, amplifiers, etc.

$I_{CB} = 10\mu A$ maximum at 25 volts.

h_{fe} current transfer ratio = 30—180.

V_{CE} collector to emitter voltage = 25 volts minimum.

Case type TO-5, SO-3, SO-44, SO-44A.

Cat. No. TRO9-C Price each net 7/6

PNP GERMANIUM MEDIUM POWER TRANSISTOR TRO2-C

A power transistor for use in commercial, experimental and hobby applications as a switch, replacement of relays, amplifiers, etc.

I_C maximum continuous collector current = 5 amps.

h_{fe} current transfer ratio = 30 minimum.

V_{CB} d.c. collector in base voltage = 30 volts.

Case type TO-3 (Diamond), SO-5A, SO-5B, NTO-1.

Cat. No. TRO2-C Price each net 9/11

PNP GERMANIUM UNIVERSAL TR TRANSISTOR TRO6-C

A general purpose RF transistor for use in mixer-oscillator, converter and RF amplifier circuits.

$I_{CB} = 10\mu A$ at 15 volts.

h_{fe} current transfer ratio = 25—35 at 465 kHz.

f_{α} cut-off frequency = 2.5 MHz.

Case type TO-5, SO-3, SO-44, SO-44A.

Cat. No. TRO6-C Price each net 8/7

NPN GERMANIUM UNIVERSAL IF TRANSISTOR TRI0-C

A universal NPN type transistor for use in IF amplifier stages, etc.

$I_{CB} = 10\mu A$ at 25 volts.

h_{fe} current transfer ratio = 20—30 at 465 kHz.

Case type TO-5, SO-3, SO-44, SO-44A.

Cat. No. TRI0-C Price each net 9/6

PNP GERMANIUM ADIO HIGH POWER TRANSISTOR TRO3-C

Audio frequency power transistor suitable for automobile radio and amplifier output stages.

I_C maximum continuous collector current = 15 amps.

h_{fe} current transfer ratio = 15—70.

V_{CB} d.c. collector to base voltage = 80 volts.

P_C collector dissipation = 150 watts maximum at $T_j = 100^\circ C$.

Case type TO-36 (Door Knob), SO-37.

Cat. No. TRO3-C Price each net 16/-

PNP GERMANIUM UNIVERSAL IS TRANSISTOR TRO7-C

A PNP transistor for use in IF amplifier stages.

$I_{CB} = 10\mu A$ maximum at 15 volts.

h_{fe} current transfer ratio = 20—30 at 465 kHz.

Case type TO-5, SO-3, SO-44, SO-44A.

Cat. No. TRO7-C Price each net 8/7

PNP GERMANIUM UNIVERSAL RF TRANSISTOR TRI1-C

A general purpose PNP germanium RF transistor for use in mixer-oscillator converter and RF amplifier circuits.

V_{CB} d.c. collector voltage = 18 volts maximum.

h_{fe} current transfer ratio = 25—160.

f_{α} cut-off frequency = 7 MHz.

Case type RO44.

Cat. No. TRI1-C Price each net 5/6

INTERNATIONAL RECTIFIER TRANSISTORS

<p>PNP GERMANIUM MULTI-BAND RF TRANSISTOR TRI2-C</p> <p>A universal germanium PNP, RF transistor for use in multi-band radios, mixer-oscillator, and converter.</p> <p>V_{CB} d.c. collector voltage = 18 volts maximum.</p> <p>h_{fe} current transfer ratio = 40—350.</p> <p>f_{α} cut-off frequency = 40 MHz.</p> <p>Case type RO44.</p> <p>Cat. No. TRI2-C Price each net 7/-</p>	<p>PNP GERMANIUM POWER TRANSISTOR TRI6-C</p> <p>A universal germanium PNP power transistor for the replacement of power transistors in audio applications.</p> <p>V_{CB} d.c. collector voltage = 32 volts maximum.</p> <p>h_{fe} current transfer ratio = 34—115.</p> <p>I_C collector current = 1.5 amps.</p> <p>P_C collector dissipation at 25°C ambient = 10 watts.</p> <p>Case type TO-3 (Diamond), 5O-5A, 5O-5B, NTO-1.</p> <p>Cat. No. TRI6-C Price each net 15/-</p>	<p>PNP SILICON 200 MW RF OSCILLATOR TRANSISTOR TR20-C</p> <p>A universal silicon PNP transistor for use as oscillator, low power RF, audio and RF/IF amplifiers up to 100 MHz. TO-18 case. Gain 19 at 2 mA. Maximum collector current 100 mA. Price each net 5/3</p>
<p>PNP GERMANIUM UNIVERSAL IF TRANSISTOR TRI3-C</p> <p>A universal PNP germanium transistor for use in IF stages of radios, etc. Intermediate frequency.</p> <p>V_{CB} d.c. collector voltage = 18 volts maximum.</p> <p>h_{fe} current transfer ratio = 60 (typical).</p> <p>f_{α} cut-off frequency = 9 MHz.</p> <p>Case type RO44.</p> <p>Cat. No. TRI3-C Price each net 5/6</p>	<p>PNP GERMANIUM HF OSCILLATOR TRANSISTOR TRI7-C</p> <p>A universal germanium PNP transistor for replacement of high-frequency oscillator transistors.</p> <p>V_{CB} d.c. collector to base voltage = 20 volts maximum.</p> <p>h_{fe} current transfer ratio ($V_E = 6$ volts, $I_E = 2$ mA, $f = 100$ MHz) = 2</p> <p>f_{α} cut-off frequency = 100 MHz.</p> <p>Conversion power gain 16 dB.</p> <p>Cat. No. TRI7-C Price each net 10/-</p>	<p>NPN SILICON 500 MW RF OSCILLATOR TRANSISTOR TR21-C</p> <p>A universal silicon NPN transistor for use as oscillator, low power RF, audio and RF/IF amplifiers up to 50 MHz. TO-18 case. Gain 90 at 150 mA. Maximum collector current 500 mA. Price each net 5/9</p>
<p>GERMANIUM PNP AUDIO DRIVER, DETECTOR TRANSISTOR TRI4-C</p> <p>A universal germanium PNP audio transistor for replacement of driver or detector transistors.</p> <p>V_{CB} d.c. collector voltage = 25 volts maximum.</p> <p>h_{fe} current transfer ratio = 80—300.</p> <p>f_{α} cut-off frequency = 1 MHz.</p> <p>Case type RO44.</p> <p>Cat. No. TRI4-C Price each net 5/10</p>	<p>PNP GERMANIUM HF OSCILLATOR TRANSISTOR TRI8-C</p> <p>A universal germanium PNP transistor for replacement of high-frequency oscillator transistors.</p> <p>V_{CB} d.c. collector to base voltage = 20 volts maximum.</p> <p>h_{fe} current transfer ratio ($V_{CE} = 6$ volts, $I_E = 2$ mA, $f = 100$ MHz) = 2.1.</p> <p>h_{fe} current amplification ratio = 20 = 150.</p> <p>f_{α} cut-off frequency = 200 MHz.</p> <p>Conversion power gain 6 db.</p> <p>Cat. No. TRI8-C Price each net 9/10</p>	<p>NPN SILICON 200 MW RF OSCILLATOR TRANSISTOR TR22-C</p> <p>A universal silicon NPN transistor for use as oscillator, low power RF, audio and RF/IF amplifiers up to 100 MHz. TO-18 case. Gain 100 at 2 mA. Maximum collector current at 100 mA. Price each net 5/3</p>
<p>PNP GERMANIUM AUDIO OUTPUT TRANSISTOR TRI5-C</p> <p>A universal germanium PNP transistor suitable for the replacement of audio output transistors.</p> <p>V_{CB} d.c. collector voltage = 60 volts maximum.</p> <p>h_{fe} current transfer ratio = 45—125.</p> <p>f_{α} cut-off frequency = 1 MHz.</p> <p>Case type RO44.</p> <p>Cat. No. TRI5-C Price each net 5/6</p>	<p>PNP SILICON 500 MW RF OSCILLATOR TRANSISTOR TRI9-C</p> <p>A universal silicon PNP transistor for use as oscillator, low power RF, audio and RF/IF amplifiers up to 50 MHz. TO-5 case. Gain 60 at 150 mA. Maximum collector current 500 mA. Price each net 6/-</p>	<p>NPN SILICON AUDIO OUTPUT POWER TRANSISTOR TR23-C</p> <p>A universal NPN silicon power transistor for use in line operation (100 to 125 volts) audio amplifier circuits with 1-watt class 'A' output, transformerless radios, phones, TV audio and video outputs, intercoms and PA circuits. TO-66 case. Typical gain with a maximum collector current (I_C) rating of 100 mA. Features collector voltage having capability to 300 volts. Price each net £1 0 0</p>
		<p>NPN SILICON UHF OSCILLATOR TRANSISTOR TR24-C</p> <p>A universal NPN silicon transistor for use in FM/RF amplifiers, FM converters, UHF oscillators. Low leakage epoxy case. Typical power gain 19 dB at 200 MHz. Average h_{fe} of 10 at 100 MHz with V_{CE} of 10 volts, I_C at 8 mA. Use with collector voltage (V_{CE}) to 12 volts and collector currents (Max. I_C) to 25 mA. 500 mW power. Price each net 11/4</p>

SEMICONDUCTOR & TRANSISTOR KITS

DD-180 Contains 2 audio and 1 RF transistor for numerous projects and experiments as described in the FREE manual included. **Price Each Net 11/4**

DD-184 Contains one each RF, audio and power transistors, satellite silicon solar cell and germanium diode. Free manual 24 page explains many hobby and experimental projects.

Price Each Net £1.13.6

The Silicon Controlled Rectifier (sometimes referred to as a Thyristor) is one of the newest and most versatile semi-conductors. Even though it is a "sophisticated" device, the commercial applications are limited only by your imagination! The International Rectifier units listed on this page are selected for use in most commercial applications. Each device is supplied with a FREE 24 page booklet completely describing the theory and operation of an SCR as well as schematically providing many interesting and practical projects that may be built.

SILICON CONTROLLED RECTIFIERS

Silicon Controlled Rectifier SCR-01

Rating: 3.5 Amp; 50 PIV
 (Max. Input Voltage 35V a.c. RMS)
 Similar to JEDEC Type 2N1771

Solid state switch for low voltage controls replacement of relay, battery charging, operation of timing circuits such as flashers, remote switching etc. Max. operating temperature 185°F.

Cat. No. SCR-01 **Price Each Net £1.2.0**

Silicon Controlled Rectifier SCR-02

Rating: 3.5 Amp; 200 PIV
 (Max. Input Voltage 140V a.c. RMS)
 Similar to JEDEC Type 2N1774

For light dimmers, home appliance speed controls and solid state switching, including remote controls
 Max. operating temperature 185°F.

Cat. No. SCR-02 **Price Each Net £1.12.6**

Silicon Controlled Rectifier SCR-03

Rating: 9 Amp; 50 PIV
 (Max. Input Voltage 35V a.c. RMS)
 Similar to JEDEC Type 2N682

Solid state switch for battery chargers, relay replacement, timing device, remote power switching etc.
 Max. operating temperature 185°F.

Cat. No. SCR-03 **Price Each Net £1.12.6**

Silicon Controlled Rectifier SCR-04

Rating: 9 Amp; 200 PIV
 (Max. Input Voltage 140V a.c. RMS)
 Similar to JEDEC Type 2N685

For motor speed controls, oven controls, high power lamp dimmers, remote control of power circuits etc. Max. operating temperature 185°F.

Cat. No. SCR-04 **Price Each Net £2.2.0**



HEAT SINK COMPOUND



Dow Corning Type 340 Silicone Grease

Conducts heat from transistors and rectifiers. A grease-like silicone material, heavily filled with heat conductive metal oxides. Will not dry out, harden or melt even after long exposure to temperatures up to 200°C. It maintains a positive heat transfer from the device to the heat sink or chassis, thereby increasing overall efficiency of the device. CONTENTS: Approximately 6.5 grams per tube.

Cat. No. DD-119-C **Price Each 6/-**

UNIUNCTION TRANSISTOR

Rating: 400 mW; 30V max.
 Provides accurate timing and triggering for SCR (Silicon Controlled Rectifier) circuits.

Cat. No. 2N2160 **Price Each 14/11**

IOR INTERNATIONAL RECTIFIER

ZENER VOLTAGE REGULATORS



Zener diodes are finding their way into almost every electronic application, as voltage regulators, reference elements, meter protectors, limiters, indicators, temperature sensors and control elements on such widely diverse applications as instrumentation, computers, radio-TV transmitters and receivers, telephone, alarm and radar systems, electrical machinery, brake controls, typesetters, paper cutters, battery chargers, welders and electroplating. Each of the Zener Diodes listed below is supplied complete with a 24 page free booklet describing many interesting and useful projects. All devices listed have a voltage tolerance of $\pm 10\%$.

1 Watt Zener Voltage Regulators

Cat. No.	Nom. Voltage (EZ)	Test Current (IT) mA	Price Each Net	Cat. No.	Nom. Voltage (EZ)	Test Current (IT) mA	Price Each Net
Z1100-C	3.9	50	/11	Z1112-C	12	15	7/11
Z1102-C	4.7	40	7/11	Z1114-C	15	13	7/11
Z1104-C	5.6	35	7/11	Z1116-C	18	10	7/11
Z1106-C	6.8	30	7/11	Z1118-C	22	9	7/11
Z1108-C	8.2	25	7/11	Z1120-C	27	7	7/11
Z1110-C	10	20	7/11				

ZENER DIODE EXPERIMENTER KITS



For schools, laboratories and experimenters

An assortment of twelve Zener diodes in voltage ranges from 3 to 30 volts and in various ratings from $\frac{1}{4}$ to 10 watts. Specially priced to promote the experimentation with Zener diodes in order to find new uses and as teaching aids in technical schools and universities. All diodes are marked with the voltage with 10% tolerance.

Cat. No. K546

Price Each £3.50

DD-170 This bargain package contains an assortment of 5 popular 1 watt zener diodes and a complete 24 page instruction and project manual.

Cat. No. DD-170

Price Each 19/6



SILICON TUBE REPLACEMENT (5U4, 5Y3 etc.) for AUDIO BROADCASTING, 2-way COMMUNICATION, RADIO, TV, etc.

A silicon replacement for 5AU4, 5AWA, 5AX4, 5T4, 5U4, 5V4, 5Y3 and 5Z4. This device contains a surge limiting resistor which adds to its practically unlimited life. Silicon replacements have a much lower forward voltage drop and therefore will create a higher output voltage. This higher voltage can damage other components in some equipment. A series resistor will simulate the voltage drop of the tube you are replacing. A variable or tapped resistor between 150-200 ohms, 50 watts is sufficient for any TV set. A complete resistor calculator is included with each ST-14.

Cat. No. ST-14

Price Each £2.10.4

SILICON RECTIFIER KITS

Low priced rectifiers for commercial applications, experimental and hobby projects as outlined in the 24 page FREE manual included.

DD-175 pkg. of 4, 100 PRV., $\frac{1}{2}$ Amp

Price Each 9/11

DD-176 pkg. of 2, 200 PRV., $\frac{1}{2}$ Amp

Price Each 5/11

DD-177 pkg. of 2, 400 PRV., $\frac{1}{2}$ Amp

Price Each 9/11



MOUNTING HARDWARE KITS

Power-Transistor Insulating and Mounting Kit

For all TO-3 and TO-36 case style transistors. One each to fit Diamond case (TO-3) and Door Knob (TO-36). Contains all metal and insulating hardware including a transistor socket.

Cat. No. DD-148

Price Each Net 3/6

Rectifier & Diode Insulating and Mounting Kits

Both kits contain plastic spacer, mica washers, solder lugs and all hardware for mounting.

Cat. No. For use on:

Price Each Net

DD144	DO-4 Case styles ($\frac{7}{16}$ " Hex) & all types with 10-32 studs	2/6
DD145	DO-5 Case styles ($\frac{11}{16}$ " Hex) & all types with $\frac{1}{4}$ " studs	3/-

AUTOMOTIVE ALTERNATOR SILICON RECTIFIERS

Exact replacement for alternator rectifiers in all Chrysler Corporation cars—including the Imperial, Valiant, Plymouth and Dodge 1960, 1961, 1962 and 1963 model automobiles. Feature rapid, simple installation. Test circuit and mounting instructions are furnished in each rectifier package.

Replacement Guide

IR Part No.	Case Polarity	Tun-Sol	Autolite	Leece-Neville	Mopar Chrysler	Price Each Net
JJ1010-C	Negative (-) Case should have black paint spot or black lettering.	124ZN	35-64	58760	2095332 & 2095502	15/-
JJ1020-C	Positive (+) Case should have red paint spot or red lettering.	124ZP	35-65	58759	2095331 & 2095506	15/-



SPACE, SATELLITE, SOLAR CELLS—SELENIUM PHOTOCELLS EXPERIMENTER TYPE CELLS

For the experimenter and hobbyist. A selected line, low priced—yet efficient, rugged and easy to mount and connect.

These cells and sun batteries may be used for powering of transistorized radios, building light meters, operating small motors from sunlight, etc.

Selenium cells have a spectral response similar to the human eye, thus are used extensively in light meters. Silicon cells have higher light conversion efficiency. They are the same as used in satellites.

Cat. No.	Description and Size	OUTPUT*		Price Each Net
		Volts	MA	
B2M	Selenium cell with mounting bracket. Cell size $\frac{1}{2}$ " x $\frac{3}{4}$ "	0.2 to 0.4	2	12/6
B3M	Selenium cell in moulded case. $1\frac{1}{8}$ " x $1\frac{1}{8}$ " x $\frac{7}{16}$ "	0.2 to 0.4	$1\frac{1}{2}$ — $2\frac{1}{2}$	15/-
S1M	Silicon cell in moulded case. $1\frac{1}{8}$ " x $1\frac{1}{8}$ " x $\frac{7}{16}$ "	0.3 to 0.4	10—16	19/-
S4M	Same as SIM but twice the current.	0.3 to 0.4	25—40	£1.13.6

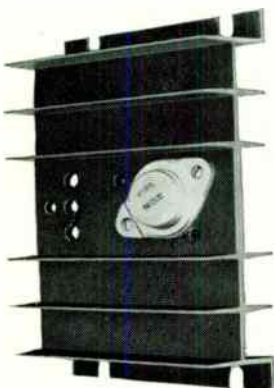
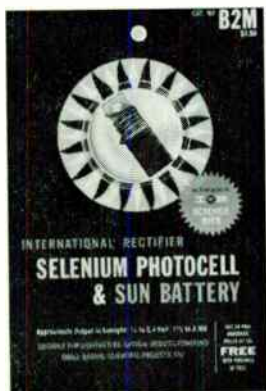
* In full sunlight, using conventional volt and milliamp meters.

TRANSISTOR AND RECTIFIER COOLERS (HEAT SINKS)

Outstanding heat dissipation—easy to apply

For use with natural or forced-air cooling. Type DD-120 fits all transistors with a diameter of .165" to .195" (eg. TO-18 case). Type DD-121 fits transistors or rectifiers with a diameter of .290" to .330" (eg. TO-5 case). For power transistors and medium power rectifiers, Type DD-125 is suggested, this is supplied undrilled. Type DD-124 is predrilled for diamond case (TO-3) and door knob case (TO-36) power transistors.

Cat. No.	Max. O.D.	Length	Height	Depth	Cent. Fin Spacing	Price Each Net
DD121-C	.740"	$\frac{3}{8}$ "	—	—	—	6/-
DD124	—	$4\frac{1}{16}$ "	3"	$1\frac{1}{4}$ "	1.5	£1.2.6
DD125	—	$4\frac{1}{16}$ "	3"	$1\frac{1}{4}$ "	1.5	19/6

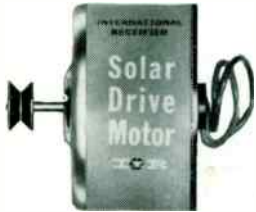


DDI04-C UNIVERSAL REPLACEMENT METER RECTIFIER

The DDI04-C may be used for all circuits used in AC meters, both "Doubler" and "Bridge" Circuits (which represent 95% of all applications). Other circuits such as half-wave, full-wave centre tape, etc. can be readily constructed. Max. rating per section is 6 VAC input and 6 MA DC. In bridge circuit max. DC current is 12 MA.

Cat. No. DDI04-C

Price Each £1.5.0



EXPERIMENTER'S MOTOR

PRECISION MOTOR with special anti-friction bearings designed for operation directly from the power supplied by solar cells. For fascinating experiments or "science projects." Operates from 0.35 to 1.5V. Recommended cell is type S4M (or two SIM in parallel).

Cat. No. EP 50 A

Price Each £1.19.6

CADMIUM SULPHIDE PHOTO CONDUCTIVE CELLS

These cells do not generate electricity, but are "light-sensitive resistors." Used for operating relays, counting devices, door openers, turning on street lights, etc. The type CS-120 cell is enclosed in a plastic case.

Cat. No.	Approx. Size	Max. Applied RMS Volt	Max. Power Dissipation Watts	Min. Dark Resistance Meg. Ohms	Max. Resistance: Ohms		Price Each Net
CS-120	$1\frac{1}{8} \times 1\frac{1}{4} \times \frac{1}{16}$	20	0.4	0.11	10 FC Illum. 7,200	100 FC Illum. 800	19/8



PHOTO-CELL AND SOLAR-CELL KITS



DD-190. This Special Value package contains 4 selenium photo cells with outputs from $\frac{1}{4}$ to $\frac{1}{2}$ volt and 0.5 to 3ma in bright sunlight. Free 24 page manual included.

Price Each 9/11

K-421. A deluxe assortment of 7 cells, 3 selenium photo, 2 silicon solar and 2 cadmium sulphide. Kit also includes an instruction manual with circuit diagrams and experiments, plus a 24 page handbook with additional projects. An ideal project kit for schools, hobbyists and experimenters.

Price Each £2.18.6

I.R. HANDBOOKS

... Basic theory on understanding the principles and use of controlled rectifiers. Circuit data. 110 pages.

Cat. No. HB-40, S.C.R. Hdbk.—Vol. I

Price Each £1.0.0

This 112-page technical manual features full descriptions of over 75 practical light-operated circuits . . . contains projects and demonstrations of both selenium photocells and silicon solar cells . . . includes chapters on basic theory.

Cat. No. HB-30, Solar Cell and Photocell Hdbk.

Price Each 16/9

Zener Handbook contains over 100 pages of semi-conductor theory, detailed and illustrated examinations of design considerations, thermal and operating characteristics, zener diode AC, DC, Audio, RF, computer, instrumentation, and circuit protection applications.

Cat. No. HB-20, Zener Diode Hdbk.

Price Each 16/9

Engineering Handbook contains 125 pages of practical rectifier engineering data. Includes chapters on first principles of semi-conductors, elimination of surge voltage breakdowns, design of fins for cooling semi-conductors, and many more. A compendium of valuable information.

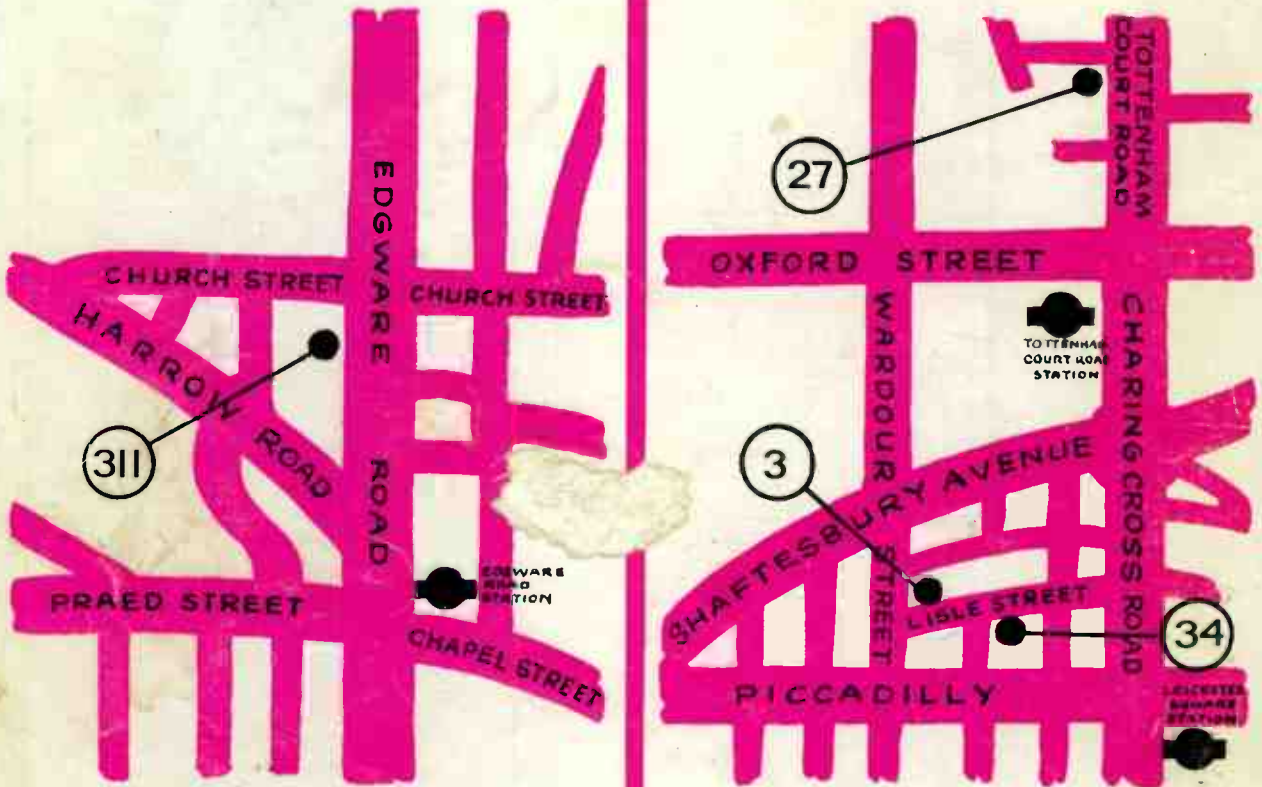
Cat. No. HB-10, Rectifier Engineering Hdbk.

Price Each 16/9

DECIMAL CONVERSION TABLE

Old s d	New pennies	Old s d	New pennies	Old s d	New pennies	Old s d	New pennies
1	$\frac{1}{2}$	5 1	$25\frac{1}{2}$	10 1	$50\frac{1}{2}$	15 1	$75\frac{1}{2}$
2	1	5 2	26	10 2	51	15 2	76
3	1	5 3	26	10 3	51	15 3	76
4	$1\frac{1}{2}$	5 4	$26\frac{1}{2}$	10 4	$51\frac{1}{2}$	15 4	$76\frac{1}{2}$
5	2	5 5	27	10 5	52	15 5	77
6	$2\frac{1}{2}$	5 6	$27\frac{1}{2}$	10 6	$52\frac{1}{2}$	15 6	$77\frac{1}{2}$
7	3	5 7	28	10 7	53	15 7	78
8	$3\frac{1}{2}$	5 8	$28\frac{1}{2}$	10 8	$53\frac{1}{2}$	15 8	$78\frac{1}{2}$
9	4	5 9	29	10 9	54	15 9	79
10	4	5 10	29	10 10	54	15 10	79
11	$4\frac{1}{2}$	5 11	$29\frac{1}{2}$	10 11	$54\frac{1}{2}$	15 11	$79\frac{1}{2}$
<hr/>							
1 0	5	6 0	30	11 0	55	16 0	80
1 1	$5\frac{1}{2}$	6 1	$30\frac{1}{2}$	11 1	$55\frac{1}{2}$	16 1	$80\frac{1}{2}$
1 2	6	6 2	31	11 2	56	16 2	81
1 3	6	6 3	31	11 3	56	16 3	81
1 4	$6\frac{1}{2}$	6 4	$31\frac{1}{2}$	11 4	$56\frac{1}{2}$	16 4	$81\frac{1}{2}$
1 5	7	6 5	32	11 5	57	16 5	82
1 6	$7\frac{1}{2}$	6 6	$32\frac{1}{2}$	11 6	$57\frac{1}{2}$	16 6	$82\frac{1}{2}$
1 7	8	6 7	33	11 7	58	16 7	83
1 8	$8\frac{1}{2}$	6 8	$33\frac{1}{2}$	11 8	$58\frac{1}{2}$	16 8	$83\frac{1}{2}$
1 9	9	6 9	34	11 9	59	16 9	84
1 10	9	6 10	34	11 10	59	16 10	84
1 11	$9\frac{1}{2}$	6 11	$34\frac{1}{2}$	11 11	$59\frac{1}{2}$	16 11	$84\frac{1}{2}$
<hr/>							
2 0	10	7 0	35	12 0	60	17 0	85
2 1	$10\frac{1}{2}$	7 1	$35\frac{1}{2}$	12 1	$60\frac{1}{2}$	17 1	$85\frac{1}{2}$
2 2	11	7 2	36	12 2	61	17 2	86
2 3	11	7 3	36	12 3	61	17 3	86
2 4	$11\frac{1}{2}$	7 4	$36\frac{1}{2}$	12 4	$61\frac{1}{2}$	17 4	$86\frac{1}{2}$
2 5	12	7 5	37	12 5	62	17 5	87
2 6	$12\frac{1}{2}$	7 6	$37\frac{1}{2}$	12 6	$62\frac{1}{2}$	17 6	$87\frac{1}{2}$
2 7	13	7 7	38	12 7	63	17 7	88
2 8	$13\frac{1}{2}$	7 8	$38\frac{1}{2}$	12 8	$63\frac{1}{2}$	17 8	$88\frac{1}{2}$
2 9	14	7 9	39	12 9	64	17 9	89
2 10	14	7 10	39	12 10	64	17 10	89
2 11	$14\frac{1}{2}$	7 11	$39\frac{1}{2}$	12 11	$64\frac{1}{2}$	17 11	$89\frac{1}{2}$
<hr/>							
3 0	15	8 0	40	13 0	65	18 0	90
3 1	$15\frac{1}{2}$	8 1	$40\frac{1}{2}$	13 1	$65\frac{1}{2}$	18 1	$90\frac{1}{2}$
3 2	16	8 2	41	13 2	66	18 2	91
3 3	16	8 3	41	13 3	66	18 3	91
3 4	$16\frac{1}{2}$	8 4	$41\frac{1}{2}$	13 4	$66\frac{1}{2}$	18 4	$91\frac{1}{2}$
3 5	17	8 5	42	13 5	67	18 5	92
3 6	$17\frac{1}{2}$	8 6	$42\frac{1}{2}$	13 6	$67\frac{1}{2}$	18 6	$92\frac{1}{2}$
3 7	18	8 7	43	13 7	68	18 7	93
3 8	$18\frac{1}{2}$	8 8	$43\frac{1}{2}$	13 8	$68\frac{1}{2}$	18 8	$93\frac{1}{2}$
3 9	19	8 9	44	13 9	69	18 9	94
3 10	19	8 10	44	13 10	69	18 10	94
3 11	$19\frac{1}{2}$	8 11	$44\frac{1}{2}$	13 11	$69\frac{1}{2}$	18 11	$94\frac{1}{2}$
<hr/>							
4 0	20	9 0	45	14 0	70	19 0	95
4 1	$20\frac{1}{2}$	9 1	$45\frac{1}{2}$	14 1	$70\frac{1}{2}$	19 1	$95\frac{1}{2}$
4 2	21	9 2	46	14 2	71	19 2	96
4 3	21	9 3	46	14 3	71	19 3	96
4 4	$21\frac{1}{2}$	9 4	$46\frac{1}{2}$	14 4	$71\frac{1}{2}$	19 4	$96\frac{1}{2}$
4 5	22	9 5	47	14 5	72	19 5	97
4 6	$22\frac{1}{2}$	9 6	$47\frac{1}{2}$	14 6	$72\frac{1}{2}$	19 6	$97\frac{1}{2}$
4 7	23	9 7	48	14 7	73	19 7	98
4 8	$23\frac{1}{2}$	9 8	$48\frac{1}{2}$	14 8	$73\frac{1}{2}$	19 8	$98\frac{1}{2}$
4 9	24	9 9	49	14 9	74	19 9	99
4 10	24	9 10	49	14 10	74	19 10	99
4 11	$24\frac{1}{2}$	9 11	$49\frac{1}{2}$	14 11	$74\frac{1}{2}$	19 11	$99\frac{1}{2}$
5 0	25	10 0	50	15 0	75	£1	100

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