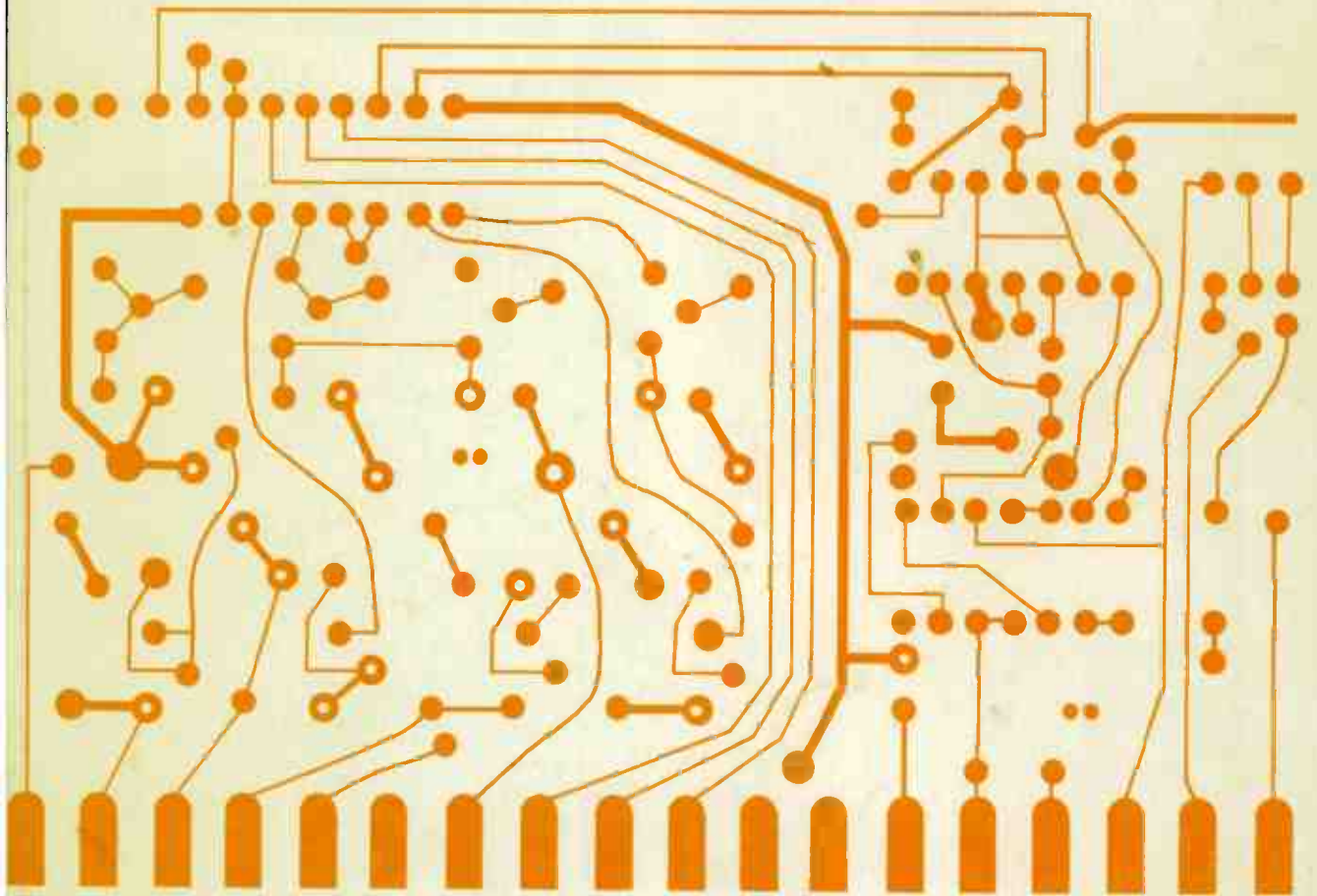


50p

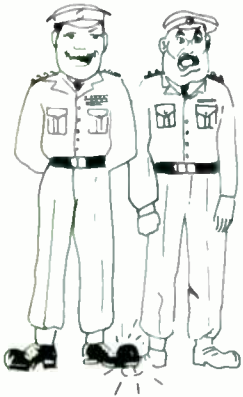
HENRY'S RADIO + TRANSONICS

RETAIL AND MAIL ORDER
1975 Catalogue



ELECTRONIC COMPONENTS & EQUIPMENT CATALOGUE

MEET THE STAFF AT **Henry's**



THE TOP BRASS



OFFICE STAFF



SHOP SALES STAFF



DISCO SHOP STAFF



SERVICE DEPT



ACCOUNTS STAFF



MAIL ORDER STAFF



DESPATCH DEPT



BUYING DEPT

HENRY'S Radio

13

Henry's Radio
303 Edgware Road, London W2 1BW

11th EDITION CATALOGUE

MAY 1975

Dear Customer,

It is now more than three years since we last published a completely new Catalogue. It is then with pride that we present this, the new 11th Edition Catalogue.

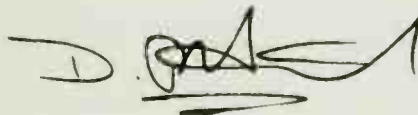
A number of changes have been made to the layout and presentation of this Catalogue, which we trust you will find helpful. As our range of stock has increased, it has become more and more difficult to index every single item. Hence, this time our Catalogue has been split into sections, with like items grouped together.

Unfortunately prices are far from stable these days, and a Catalogue which contains prices is likely to be out of date before it goes to print. Thus we have given all items a code number (except those in Sections C and D) which may be used with a free supplement, which we will publish quarterly. Any price changes will be listed in the supplement, which will be available on request.

As in the past, we are offering a discount voucher to enable you to recoup the cost of this Catalogue. The voucher may be used in any one of the components shops and the Electronics Division mail order. Please note; these vouchers are not valid at Henry's Radio Home Entertainment Centres, or Henry's + Lindair shops.

Please help us to help you by using the enclosed mail order forms, and by observing our £2.00 minimum order charge, as the cost of handling small value mail orders has risen very steeply.

Assuring you of our best attention at all times.



D. R. Hunt

General Manager, Electronics Division.



Directors: H. French, A. H. French, D. J. French, M. French

A member of the Henry's Group of Companies
Registered Office: 3 Crawford Place, London W1H 1JB Registered in England Number 521653

TERMS AND CONDITIONS OF SALE

GENERAL All orders placed are subject to the terms and conditions as listed below. No other terms and conditions of sale whatsoever can be accepted. No goods are supplied on approval or on sale or return. All goods are offered subject to availability and being unsold. All prices are subject to change without notice and goods are supplied at prices ruling at date of despatch. All prices quoted are inclusive of VAT.

METHOD OF PAYMENT PAYMENT IS BY CASH WITH ORDER. POSTAL ORDERS, MONEY ORDERS, POST OFFICE GIRO CHEQUE AND BANK CHEQUES—MADE PAYABLE TO HENRY'S RADIO AND CROSSED.
ALL CASH MUST BE SENT BY REGISTERED POST—MINIMUM ORDER VALUE ACCEPTED IS £2.00.

ACCEPTANCE OF ORDERS ALL ORDERS MUST QUOTE CATALOGUE EDITION, page number and price. Alternatively, the advertisement, leaflet, quotations or price list from which order is placed. No orders placed with the company can be considered accepted until the company has indicated acceptance.

TELEPHONED ORDERS (other than requests for literature, quotations or availability) can not be accepted. Except against Barclay/Access Card. Minimum order is £5.00.

TERMS FOR CREDIT ACCOUNTS Monthly accounts orders can be accepted from companies and industrial organisations including government departments, schools and other educational establishments with established credit standing. Accounts facilities will be given subject to Trade plus Bankers References. Only official orders for a minimum value of £10.00 (UK only) for customers intending to purchase regularly are accepted. Quotations for quantity discounts for any items listed will be given only on receipt of a list of requirements on official stationery. All correspondence should be addressed to 'Sales Dept'. Payment is to be made no later than one calendar month from date of Invoice. The company reserves the right to close these accounts in the interest of the company.

CARRIAGE AND PACKING Extra at the charges quoted or a minimum of 30p must be included with all orders—Applies to UK only. For overseas orders please allow sufficient to cover postage and special packing—alternatively the company will quote as required.

DESPATCH The company accepts orders and promises delivery in good faith but accepts no responsibility whatsoever for delays in execution of any order and the company shall not be liable in any respect whatsoever for non-delivery. Despatch is by letter post, parcel post, carrier or British Road Services at the discretion of the company.

CLAIMS AND NON-DELIVERY The company accepts no responsibility for alleged shortage of goods, damage and other discrepancy unless notification is received in writing within 3 days from receipt of goods. Failure to advise will be held to free the company from any responsibility. It is regretted that the company is unable to accept telephone calls concerning the above.

DAMAGE AND RETURNS Any goods received damaged will be replaced free of charge provided that within 3 days from delivery the company and the carriers have been notified in writing of the exact nature and description of the damage. In all cases the packing must be retained. No goods can be returned without previous permission in writing from this company and in any event the goods must be sent carriage paid at the risk of the sender.

GUARANTEE All goods supplied unless specifically stated are guaranteed to be in perfect working order on despatch. The company guarantees to replace or repair at the company's discretion free of charge any goods found to be defective to the to the company's satisfaction provided that the goods have not been misused or damaged in any way and provided that such goods are promptly returned carriage paid to the company. The company shall be under no liability in respect of any defects whatsoever, in goods supplied, nor for any injury, damage or loss resulting from such defects. The company also reserves the right to insist that such goods be returned to the company, to the manufacturers, distributors or importer for test, repair or replacement at the discretion of the company. All goods (other than 'SALE' items) are guaranteed for 12 months from date of purchase for faulty manufacture. However, as the above conditions of guarantee apply, a handling or servicing charge may be made at the discretion of the company after 28 days from date of despatch or purchase. No goods will be accepted under any circumstances without the goods and original boxes in clean condition and production of the issued sales receipt or mail order number.

SPECIFICATION Every effort has been made to ensure accurate descriptions, the company can accept no responsibility WHATSOEVER for errors and causes due to any errors.

QUOTATIONS, TRADE AND EXPORT The company accepts enquiries from all sources for quotations which must be sent separately to any orders placed. Allow up to 10 days for a reply and leave room for prices to be entered on your order. Trade and Export enquiries invited.

HOW TO ORDER

To avoid delay, please use our order form whenever possible. New order forms will be sent with each order, additional order forms will be sent upon request.

Please use a ball point pen, and print clearly. When using our order form, please refer to the "How to order" instructions on the back of the form. Ensure you include your name and address. List the items required, one to a line, continuing on a separate order form if necessary. Please use a separate piece of paper for enquiries, which should have your name and address attached. Include our catalogue number where appropriate. All items in our catalogue have a code number, except Sections C and D.

Total the cost of the order, add carriage and packing (minimum 30p). Add any amount outstanding from any previous orders, then subtract any credit notes or vouchers. Include the Grand Total on the bottom of your order. Enclose your remittance with your order and post to Henry's Radio, Freepost, London, W2 6BR. Cheques and Postal Orders should be made payable to 'Henry's Radio' and crossed, cash should be sent by registered post. Please note that Credit Notes and Vouchers issued by Henry's Home Entertainments Centres, and Henry's + Lindair are not acceptable.

We regret we are unable to accept C.O.D. orders, or telephone orders other than those against Barclay/ Access cards, or established credit account customers.



A CORRECTLY COMPLETED ORDER FORM

CARRIAGE & PACKING CONVERSION TABLE

RATE	Description	Amount
A	small packet rate	30p
B	small parcel rate	67p
C	parcel rate	£1.00
D	carriers rate	£1.60
E	special rate	£5.00

HENRY'S

VISIT OUR NEW

SUPERMARKET

at

404, EDGWARE ROAD, LONDON W2

HENRY'S

for

INTEGRATED CIRCUITS TRANSISTORS
TRIACS RECTIFIERS
RESISTORS CAPACITORS
VALVES CRYSTALS

COMPONENTS TO FULFIL
EVERY REQUIREMENT

HENRY'S

for

SPEAKERS
PRE-AMPLIFIERS
AMPLIFIERS
MIXERS
MICROPHONES
& ACCESSORIES

HENRY'S

for

TEST EQUIPMENT
PANEL METERS
INTERCOMS
POWER SUPPLIES
READY TO BUILD KITS
& MANY OTHER INTERESTING ITEMS

How you benefit from over 30 years' experience

Whatever your hardware needs in electronics or hi-fi, you'll find that one or more of the organisations in the Henry's Group of Companies have exactly what you want. And if you are looking for sound advice, backed by three decades of service to enthusiasts, professionals, industry and educational and government establishments, you'll get it from Henry's

Electronics Division

There are three companies in the Henry's Electronics Division — Henry's Radio, Transonics Ltd., and K. Popper (RTC) Ltd. Through their engineering and marketing departments, Henry's Radio provide a wide range of services for the electronic components industry, and their staff have exactly the right degree of flexibility to suit today's rapidly changing market situations. For solid-state needs, Transonics Ltd., and K. Popper (RTC) Ltd. are at your service! OEM customers are catered for by Transonics, who have thousands of devices ready to meet your precise call-off demands. K. Popper deal with both trade and OEM customers, and their staff can offer valuable advice on the state of the semiconductor market before you finally place your order.

Hi-Fi Division

With the merger of Henry's Home Entertainment Centres and Lindair, there are now over 20 Centres where you can see and hear hi-fi equipment made by over 70 of the world's top manufacturers. These include Sansui, Rank Audio, Teac, Quad, Philips, Pioneer, Marantz, Sony, Lux and Garrard. With such a wide range of hi-fi systems, units and accessories available, we can be completely impartial when giving customers advice on what to buy.

As well as superb equipment, Henry's and Lindair offer instant credit for callers, competitive prices, 12 months' parts and labour guarantee and a real welcome for Barclay and Access Cards.

For more information send for current HI/FI LEAFLET No. 17.



The Henry's Group of Companies

ELECTRONICS DIVISION

Henry's Radio, Edgware Road, London W2. Tel: 01-402 8381

Transonics Ltd (OEM), 303 Edgware Road, London W2. Tel: 01-723 3646

K. Popper (RTC) Ltd (Trade/OEM), 55 Chaplin Road, London NW2. Tel: 01-459 2141

Daleba Electronics Ltd, The Maltings, 61 High Street, Ware, Herts.

HI-FI DIVISION

Edgware Road, W2. Tottenham Court Road, W1. London and branches. (See inside back cover for full address details)

TRANSPORT DIVISION

Pan Express Ltd, Silverdale House, Pump, Hayes, Middx. Tel: 01-848 3531

FIRE & SECURITY

Manley Security Systems Ltd and associated companies, 36-38 Holloway Road, London N7. Tel: 01-607 4663

UK and Europe

Henry's have firmly established themselves at the heart of the Common Market, with a purpose-designed Hi-Fi

Center in Brussels. To ensure that adequate transportation facilities are always available between the UK and Brussels, Henry's now have a material interest in Pan Express Ltd., international trucking operators. With a fleet of vehicles ranging from 5 cwt vans up to 32 ton trucks, the company is one of the leading organisations involved in the charter of both vehicles and drivers to air freight agencies. As well as transporting hi-fi and audio equipment between Brussels and the UK, Pan Express specialises in carrying a wide variety of products to and from Teheran. And at the moment (Jan. 1975), negotiations are proceeding with a firm of Belgian Forwarding Agents, with a view to opening a depot in Belgium.

Another area where Henry's have established themselves, is in the manufacture of audio equipment to meet the demands of thousands of enthusiasts. The extremely popular Texan amplifier is just one example of Henry's expertise in the production of high quality units.

Fire and Security

To give customers a reliable service for the installation of fire and security alarms, Henry's have a special subsidiary concerned solely with these systems. Known as The Manley Security Group, they provide exactly the right system, based on a careful check of your premises. And their staff work closely with local crime prevention officers, fire inspectors and insurance surveyors, whenever the need arises.

Every Manley installation is covered by a rental/maintenance agreement, which provides four quarterly inspections and a complete annual check-out of the entire system.

For more details of products and/or services of The Henry's Group of Companies contact one of the following

ALPHABETICAL INDEX

A
 Actuators C36
 Adaptors A20, E11
 Aerosols E4
AERIALS
 Car A20, E14
 Ferrite C19
 Telescopic E6
AMPLIFIERS
 Modular and
 Transistor A1, A2, A5
 Public Address B13, B14
 Telephone F3
 Audio generators G15, G17
 Audio leads E9, E10
 Auto car-lock A20
 Avometers E8

B
 Balance meters G22
 Ball drives C12
 Batteries & Cells ... C44
 Battery chargers A20
 Battery clips and
 holders C44
 Battery eliminators .. A5
 Borg Micropots C5
 Boxes & Chassis ... C28
 Breadboards E2
 Brimisters C1
BUILD YOURSELF
 AM/FM Modules .. A3
 Radio Tuners A5
 FM Tuners A4
 FM Decoder A4
 Portable Radios A5, A8
 Henelec Tuner A24
 Ignition A9
 Invertors A5
 Transmitter/Rec
 Receiver A6
 Texan Amp A23
 Bulbs & holders C39
 Buzzers A22

C
 Cabinets (speaker)
 F15, F16
 Cables & wire C45
 Calculator kits A8
 Capacitors C6 to C12
 Cartridges & stylii .. B1
 Cassette tapes E15
 Cathode Ray tubes .. D8
 Chokes C20
 Cigarette lighter(car) A20
 Coax cable C45
 Coax connectors C40
 Coils C13 to C17
 Coil formers C18
CONTROLS
 Carbon C3
 Preset carbon C4
 Preset trimmers ... C10
 Precision C4
 Slider C4
 Tuners C11
 Wirewound C4
 Crossovers F12, F13
 Croc-clips C43
 Crystals D10

D
 Decoders—stereo .. A4
 Denchi Kits A19
 Denco coils .. C13 to C15
 Detector probe A22
 Diodes Section D
 Dials & Drives C28
 Digital Voltmeter ... G20
 Digital Clock A 9
 Dimmers A11
 Din Plugs C41
 Disc Capacitors C7
 Door intercoms F3
 Dosimeters A12
 Dynamotors A22

E
 Earphones C46
 Edgewise panel
 meters G22
 Educational Kits A19
 Electronic Calculators A21
 Electronic Capacitors C6

F
FADERS
 car, stereo, quad .. A20
 Ferrite aerials C19
 Fibre optics B23
 FM Tuners & Modules A4
 Fuses & Holders C40

G
 Geiger Equipment .. A12
 Geiger Tubes A22
 Gravener A12
 Grid Dip meter G18

H
HEADPHONES
 Stereo F5, F6, E13
 Budget stereo/mono E13
 Accessories F6, E12
 Heat sinks D11
 HI/Fl cables and
 adaptors E9, E10
 Henelec Tuner A24

I
 Infra red detection .. A11
 Instrument cases ... C28
 Integrated circuits D3, D5
 Intercoms F1, F2, F3
 Insulating Tape E4

J
 Jack plugs and
 sockets C42
 Josty Kits A15

K
 Knobs E7, E8
 Kits A19, A23, A24, H9

L
 Lamps and neons ... C39
 Leads E9, E10
 Leads, car aerial ext. A20
 Leaflets A10
 Level meters G22

M
 Magnetic Tape E16
 Mains Suppressor A12
 Mains Power Supplies
 A17, A18
 Megaphones B22
 Megistors C2
 Mercury batteries ... C44
 MEC Presets C5
 Mica washers/Bushes D11
 Microphones B1 to B7
 Accessories B9
 Inserts C48
 Stands & Booms ... B8
 Mobile accessories .. A20
 Micropots C5
 Microswitches C27
 Microscope A12
 Mini Lab G20
 Minitrons D14
 Mixers B10, B11, B12
 Motors C35
MULTIMETERS
 AF 105 G1
 Avometers G8
 Eagle G8, G9, G10
 I C E. G11, G12, G13, G14
 ITI-2 G1
 M210 G1
 TMK G5, G6, G7
 Russian meters G2 to G4
 Mobile P/A amps B13

N
 Neosid cores .. C21, C22
 Neons & Lamps C39
 Nombrex Equip. G15, G16
 Numicators D16
 Nuvislar D8

O
 Oscilloscopes G21

P
 P.A. Equip. B13, B14
 P.A. Speakers B21
 PRE-Amps & Modules A16
 Padders & Trimmers C10
 Panel Meters G22, G23, G24
 Photo devices/Cells D5, 13
 Photo Electric relay A11
 Photomultipliers D13
 Plinths & covers ... B18
 Plugs & sockets C41, C42
 Pot cores C21, C22
 Power supplies .. A7, 18
 Precision presets .. C4
 Preset capacitors ... C12
 P.C. Kits E1
 Probes G19
 Projectors B28
 Punches chassis ... E5
 Publications/Books .. A10

Q
 Q. Max cutters E5
 Quartz crystals A7, A12
 Quad adaptors A7, A12

R
 Radio control A6
 Radiation Equip. A12
 Radionic Kits A19
 Rectifiers D1
 Relays C37
 Resistors C2
 Reverb. Amps A11
 Reverb spring unit .. A12
 Reel to Reel Tapes .. E16

S
 Signal Tracer G20
 Sinclair Equip. A7, A8, A9, A21
 Sockets & Plugs ... C41, C42
 Solder E4
 Soldering irons E3
 Sondert Alarm A11
SPEAKERS (chassis)
 Baker B18
 Celestion B18
 Eagle F7, F8, F9
 EMI F14
 Fane B19
 Goodmans B20
 P/A B17
 General C46, C47, F7
 Splicer (Tape) E16
 Spools E16
 Strobo tubes B23
 Substitution &
 Capacitance boxes .. G19
SWITCHES
 Foot C26
 Maka C24
 Micro C27
 Push button C27
 Rotary C23
 Slide C26
 Thermal delay C36
 Toggle C25
 Wafer C23
 Ultrasonic A11
 SWR Meter G10

T
 Tag boards C28
 Tantalum capacitors ... C9
 Tachometer A20
 Tape heads C38
 Tape demagnetizer E16
 Telephone H/set F4
 Telephone Amps F3
 Terminals C43
 Thermistors C2
 Thyristors D2, D9
 Tools E4
 Transfilters C17
 Transistor testers .. G18, G19
 Transmitters/Receivers A6
TRANSFORMERS
 Auto C35
 Charger C32
 Constant voltage C35
 Filament C35
 Instrument C35
 Invertor/Ign C33
 Line B22
 Low voltage C31, C32
 Mains HT C35
 Transistor C29
 Transistors D2 to D9
 Triacs D2 to D9
 Trimmer capacitors ... C10
 Turntables B15, B16
 Tuners A3, A4, A5, A24
 Tuning drives C28
 Turner kits A19
 Tweeters F10, F11

U
 Ultrasonics A11

V
 Vibrators A22
 Voltmeters G18
 Valves & Tubes D8, D9
 Valve Bases & Cans D10
 Vernier drives C28
 Vero boards E1
 VHF convertor A12
 Videosport H9
 Volume controls C3

W
 Weyrad coils C16
 Wire & Cable C45

SECTION INDEX

A TRANSISTOR AMPS. SINCLAIR PROJECTS. KITS. BOOKS & LEAFLETS. MOBILE ACCESSORIES. DYNAMOTOR & BUZZERS.
FM TUNER KITS & MODULES. PROJECTS & GADGETS. EDUCATIONAL KITS. CALCULATORS. TEXAN AMP. HENELEC TUNER.

B MICROPHONES. MIXERS & PRE-AMPS. MEGAPHONES.
STANDS & BOOMS. P. A. AMPS. HORN LOUDSPEAKERS.
MICROPHONE ACCESSORIES. TURNTABLES & CARTRIDGES. CHASSIS SPEAKERS. FIBRE OPTICS.

C RESISTORS. VOLUME CONTROLS. TRANSFORMERS. WIRE & CABLE. NEONS & LAMPS. RELAYS.
THERMISTORS. COILS & FORMERS. PLUGS & SOCKETS. CONNECTORS & CLIPS. SWITCHES.
CAPACITORS. POT CORES. CHASSIS SPEAKERS. FUSES & HOLDERS. EARPHONES.

D TRANSISTORS. THYRISTORS. RECTIFIERS. CRYSTALS.
INTEGRATED CIRCUITS. TRIACS. VALVES. DIODES.

E P.C. KIT. BREADBOARDS. 'Q' MAX. CUTTERS. TELESCOPIC AERIALS. HEADPHONES & ACCESSORIES.
KEYNECTOR. SOLDER & IRONS. HOLE PUNCH KIT. KNOBS. CAR RADIOS & AERIALS.
VEROBOARD. WIRE CUTTERS & STRIPPERS. TOOLS. LEADS & ADAPTORS. CASSETTES & REEL TAPES.

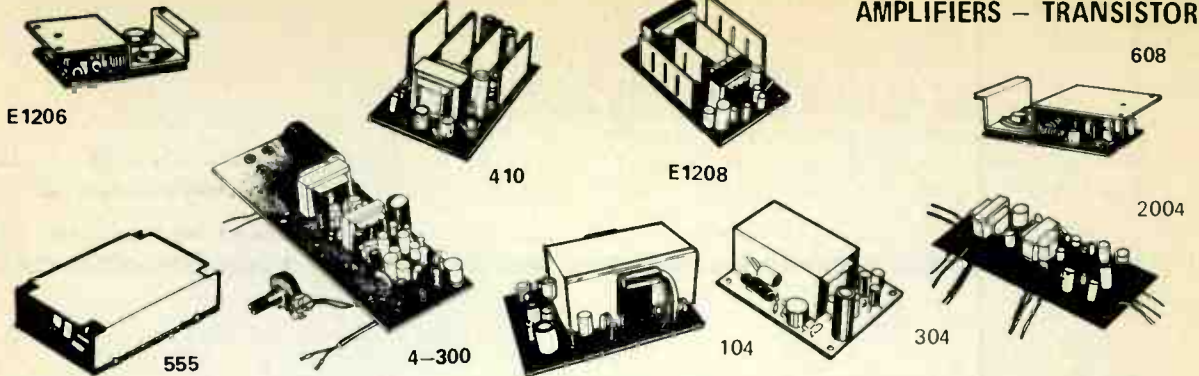
F HOME & OFFICE INTERCOMS. SPEAKERS, TWEETERS & CROSS-OVERS.
STEREO HEADPHONES AND ACCESSORIES. TELEPHONE HANDSETS.

G MULTIMETERS. SIGNAL GENERATORS. ACCESSORIES. OSCILLOSCOPES.
TRANSISTOR TESTERS. LEADS & PROBES. PANEL METERS.

H PIC-A-PAK'S TRANSISTORS. THYRISTORS. RECTIFIERS.
INTEGRATED CIRCUITS. TRIACS. DIODES.

J PRICE/CODE SUPPLEMENT

AMPLIFIERS – TRANSISTOR



ALL MODELS COMPLETE WITH INSTRUCTIONS. BATTERY OPERATED OR MAINS OPERATED USING OPTIONAL MAINS UNIT. SEE SEPARATE SECTIONS FOR KITS TO BUILD.

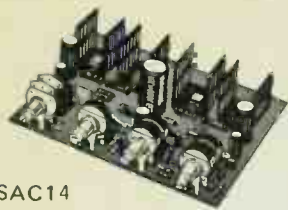
Type No.	SIZE			INPUT		Response (C/S or Hz)	Power and load	DC Supply (NL - no input)	NOTES	Signal Earth	PRICE £ p	CODE
	L	W	H	Level	Impedance							
4-300	140mm	45mm	20mm	1-10mV	5 K ohm	100-10,000	300mW 3-8 ohms	9V DC	* 25 ohms to 100kohm suitable. 5 transistors * Built in Rect/ smoothing	(+)	2.20	A001
2004	100mm	40mm	15mm	10mV- 100mV	1-2K ohm	100-12,000	250mW 3-8 ohms	9V DC	4 tr. +th. Transformer Push-pull	(+)	3.40	A002
104	75mm	55mm	30mm	10mV	2 K ohm	100-15,000	1 watt 8-16 ohms	9V DC 12-180mA	4 tr. +th. Transformer Push-pull	(+)	3.90	A003
304	75mm	55mm	30mm	10mV	2 K ohm	50-15,000	3 watts 4-8 ohms	9V DC 12-500mA	4 tr. +th. Transformer Push-pull	(+)	4.94	A004
555	80 mm	53mm	22mm	150mV	80- 100 K ohm	30-20,000	3 watts 8-16 ohms	12V DC 15-350mA	6 tr. +th. Push-pull Transformerless	(+)	5.15	A005
555 ST	100mm	80mm	22mm	150mV	50 K ohm	30-20,000	1½+1½ W	12V DC	Stereo Version	(+)	7.45	A006
E1208	115mm	64mm	38mm	25-60 mV	50 K ohm	60-12,000	5-8 watts 4.8, 16ohm	12V DC 15-900mA	4 transistor transformer Push-pull	(+)	6.40	A007
608	118mm	60mm	28mm	30-50 mV	50-70 K ohm	20-15,000	10 watts 4-8 ohms	24V DC 15-400mA	6 trans. Push-pull Transformerless	(+)	6.20	A008
410	90mm	60mm	32mm	160mV	50-70 K ohm	30-25,000	10 watts 8 ohms	28V DC 150-650mA	4 silicon tr. Single ended transformer drive Push-pull	(-)	6.20	A009
620 (E1206)	129mm	83mm	25mm	150mV	30-40 K ohm	10-40,000	30-35 W 4-8 ohms	45V DC 20-900mA	6 trans. Push-pull Transformerless	(-)	12.45	A010
Z40	80mm	55mm	20mm	100mV	70 K ohm	10-100,000	15 watt 8 ohms	30-35 V	8 silicon transistors Push-pull Transformerless	(-)	6.80	A011
Z60	98mm	55mm	20mm	100mV	70 K ohm	10-200 000	25 watt 8 ohms	45-50 V	12 silicon transistor Push-pull Transformerless	(-)	8.70	A012
SA6817	90mm	60mm	34mm	100- 150mV	100 K ohm	20-25,000	6+6 watts	24V DC	Stereo	(-)	12.75	A013

SEE PAGE A18 FOR SUITABLE POWER SUPPLIES

CARRIAGE/PACKING (UK) 'A' ANY MODEL

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V. A. T.

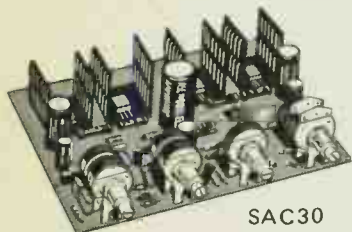
AMPLIFIERS – TRANSISTOR WITH CONTROLS



SAC14



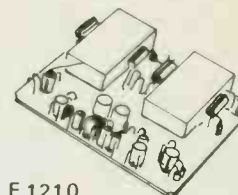
CA068



SAC30



CA038



E1210

ALL MODELS SUPPLIED WITH INSTRUCTIONS.

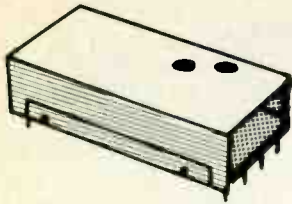
SEE SEPARATE SECTIONS FOR KITS TO BUILD

Type No.	SIZE			INPUT		Response (C S or Hz)	Power and load	DC Supply (NL— no input)	NOTES	Signal Earth	PRICE £ p	CODE
	L	W	H	Level	Impedance							
E1210	130mm	95mm	25mm	30mV	50 K	50-20 KHz	2½ 2½ w 8 ohms	12V DC	Stereo Module with tone & input controls (+ signal earth) Controls extra.	(-)	10.30	A17
SAC14	180mm	130mm	145mm	500mV	1 M ohm	40-17 KHz	7+7 watts 8 ohms	Mains (see note)	Stereo with controls. Mains with MT40 Transformer (extra)	(-)	14.70	A18
SAC30	180mm	130mm	145mm	500mV	1 M ohm	35-18 KHz	15+ 15 W 8 ohms	Mains (see note)	Stereo with controls. Mains with MT56 Transformer (extra)	(-)	19.00	A19
CA038	114mm	67mm	21mm	200— *000mV	70— 250 K ohm	40-25 KHz	1½ 1½ W	9V DC	Stereo with volume and tone controls.	(-)	8.70	A20
CA068	114mm	67mm	21mm	30— 100mV	30—100 K ohm	100-20 KHz	3+3 W	12V DC	Stereo with volume and tone controls.	(-)	13.15	A21

CARRIAGE PACKING (UK) 'B' ANY MODEL

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

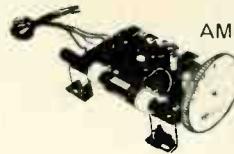
A



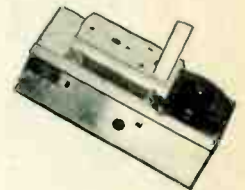
MULLARD FM-LP MODULES



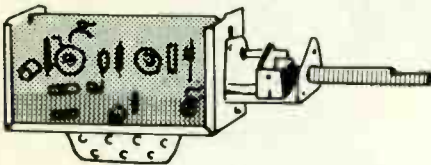
UHF TV TUNER



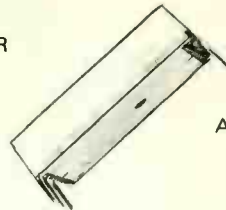
AM TUNER CHASSIS
A030



A034



GORLER FM



A033

MULLARD FM MODULES

Two enclosed modules provide a good FM tuner when interconnected.

LP1185 10.7 MHz IF strip, 9 volt DC operated 6.5mA, 250 KHz bandwidth, 60-300µV sensitivity for 40mV output. S/N 60dB. Negative earth.

LP1186 FM tuner using varicap diodes. 87.4 to 104.5 MHz coverage. Negative earth. 8 volt DC supply approx. 6mA. Bandwidth 300 KHz. Input/output impedance 75 ohms. 10.7MHz output. Power gain 30dB. Diode supply voltage 2-12 volts.

SUPPLIED COMPLETE WITH DATA SHEETS LP1185 IF Module
LP1186 Tuner Module

PRICE	CODE
£6.80	A028
£7.30	A029

A1007 AM TUNER CHASSIS

This AM radio tuner covers the popular wavebands, 530-1600 KHz (190-560 metres). The 3 transistor printed circuit board is supported on four metal struts. Tuning is by a serrated edge dial. With operating instructions. Power supply 9V. Dimensions: 70 x 60 x 110mm.

PRICE	CODE
£5.95	A030

GORLER FM

Permeability tuned FM tuner with 10.7 MHz IF output. Bandwidth 350 KHz at 6dB. Worm drive. Tuning 87.5 to 108.5 MHz. Power gain approx. 29dB. Input sensitivity: 2µV. Supply voltage 8 to 10 volts DC.

PRICE	CODE
£5.05	A031

MC1310 STEREO DECODER KIT

A single IC phase locked loop stereo decoder. Suitable replacement for our 1067 Decoder. Input up to 450mV at 10K ohms, output up to 480mV at full input. Separation max: > 40dB
Suitable for use with LP1185 and LP1186
All parts, including printed circuit and instructions supplied.

PRICE	CODE
£8.75	A032

CARRIAGE/PACKING (UK) 'A' ANY MODEL

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACK. CODE REFER TO PAGE 2 OF CATALOGUE.
PRICE INCLUSIVE OF V.A.T.

LP1171

AM/FM IF MODULE

10.7 mHz FM and 470 KHz AM
I.F.Strip 7v Positive Supply @ 3.5 mA

AM BANDWIDTH 6.5 KHz
FM BANDWIDTH 300 KHz
Audio Output at Limiting
(5mV Input, 22.5 KHz) 75 mV
Deviation at 400Hz) 120 mV
(With Load of 100KΩ)

PRICE	CODE
£4.80	A033

LP1179

AM/FM FRONT END

87.4 M/Hz to 104.5 M/Hz
Aerial Input Impedance 75Ω or 300Ω
I.F. 10.7 MHz
Output Impedance 100Ω

For use in conjunction with LP1171 IF Module above +6.8v supply (4.5-7.8v)

PRICE	CODE
£4.80	A034

UHF T.V. TUNER

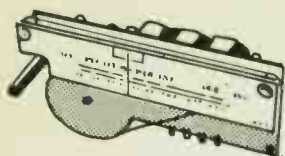
TYPE C A035 - Variable Tuning
2 Transistor variable tuning TV tuner covering Bands IV and V. Channels 21-64. Power supply up to 20V at approx. 20mA. (-ve earth). Aerial impedance 75 ohms. Output at approx. 39 MHz.

TYPE B A036 Push Button Tuning
2 transistor 4 push button tuner covering the TV Bands IV and V. Channels 21-64 output is at approx. 39 MHz. Power supply required is 12 V at approx. 10mA (-ve earth). Aerial Impedance: 75 ohms.

TYPE D A036A - 6 Push Button Tuning

PRICE	CODE
£3.00	A035
£4.20	A036
£4.80	A036A

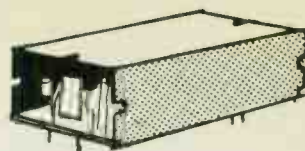
FM TUNER MODULES AND DECODERS



A037

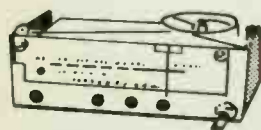


A039



A043

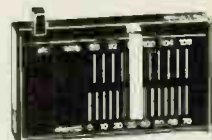
A



A038



A041



SINCLAIR FMT

SEE SEPARATE SECTIONS FOR KITS TO BUILD. CARRIAGE/PACKING (UK ONLY) 'A' ANY MODEL

ALL MODELS COMPLETE WITH INSTRUCTIONS. BATTERY OPERATED OR WITH OPTIONAL MAINS UNIT

FM 5231 (TU2)

Variable tuned 6 silicon transistor, 6 Diode superhet with AFC and AGC covering 88-108 MHz FM Band. 10.7 MHz IF, output 300mV for 100µV input. DC Power supply 6 volts (7 max). Negative earth. Approx. Overall size 120 x 50 x 45 mm.

(Please order as FM 5231 (TU2)).

PRICE	CODE
£9.55	A037

SP62H Stereo Tuner

8 transistor, 12 diode miniature stereo FM Tuner superhet with AFC and AGC. Operates from 6 volt DC 10mA or 20mA with built in stereo LED indicator on. Covers 88-108 MHz, IF 10.7 MHz. Sensitivity 10dB. Decoder separation 30dB, 20dB 50 HZ-10KHz. Output 2 x 100-200mV 50Kohm. S/N 40dB. Approx Size: 125 x 85 x 45mm.

PRICE	CODE
£17.75	A038

A1018

U.2-A. 1018 F.M. TUNER IN CABINET This sophisticated version of the A.1005 Tuner Chassis is presented in a wooden cabinet finished in oiled walnut. Additional refinements which have been incorporated are a front located ON/OFF switch and a battery compartment within the cabinet. The front fascia is smartly presented in silver grey and black. The tuner covers the FM waveband from 88-108 MHz and all technical details are similar to the A.1005. Dimensions: 180 x 90 x 142mm.

PRICE	CODE
£16.75	A039

FM 5231 (TU3)

As FM 5231 (TU2) but designed for use with stereo decoder SD4912 and operates from 12 volt DC (14 max).

(Please order as FM5231 (TU3)).

PRICE	CODE
£9.55	A040

A1005 (S) A1005 FM TUNER CHASSIS

Incorporating 6 transistors and 3 diodes in its printed circuit, this radio tuner covers the FM band from 88-108MHz. The horizontal clearly marked dial permits sharp drift-free tuning. Circuit board is supported on metal struts with fixing holes for installation purposes. Excellent performance and proved reliability. 9V battery operation. Sensitivity: 10µV input for 10mV output; Intermediate frequency: 10.7MHz; -Ve signal earth; power supply: 9V less than 9mA; Input impedance: 75 ohm unbalanced; Size: 153 x 60 x 115 mm.

PRICE	CODE
£10.70	A041

SINCLAIR FM TUNER

Its unbelievably compact size - its original circuitry - its dependable performance - all this in a boldly designed modern case measuring 85 x 50 x 20mm plus greater adaptability. Tuning range: 87 to 108MHz; AFC: One 26 transistor I.C.; Twin dual varicap tuning; Ceramic filter in I.F. section; Sensitivity: 4 microvolts for 30dB quieting; Power requirements: 12-45 V.

PRICE	CODE
£14.35	A042

SD 4912 (Decoder for TU3)

FM Stereo decoder features 6 diodes and 6 transistors for use with negative earth FM tuners. Input 20-30 mV at 19 KHz, separation 30dB at 1KHz, 20dB 50HZ-10KHz. Input & output impedance 10K ohms. Output 2 x 100-200mV S/N 40dB. Power: 12 volt DC 50mA max. Stereo beacon indicated by optional 50-70 volt neon (not supplied). Approx. Size: 100 x 45 x 25 mm

PRICE	CODE
£9.55	A043

A1005M(S) (Decoder for A1005)

A1005MS MULTIPLEX STEREO ADAPTER Incorporation of this adapter to FM radio tuners such as model A1005 will enable full advantage to be taken of the high quality reception now available on stereophonic broadcasts. The slim printed circuit board incorporates all the components necessary for adaption Input power: 0.1V min.; Output power: 1.5x input power; Size: 140 x 50 x 22mm; Power supply: 9-12V. Less than 5mA at 12V; -Ve signal earth.

PRICE	CODE
£9.05	A044

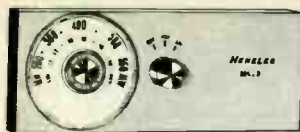
SINCLAIR DECODER

This unit gives 40dB channel separation with an output of 150mV per channel. Gallium arsenide light emitting beacon automatically lights up to show when a stereotransmission is tuned in. Multiplex stereo demodulator may be used in many cases with existing single channel frequency modulated tuners to provide stereo reception. Size: 47 x 50 x 20mm. One 19 transistor IC..

PRICE	CODE
£9.55	A045

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

Radio, Radio Tuners, Amplifiers and Invertors to build



A048



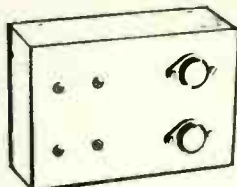
A049



A050



A051



A052

ML3 MEDIUM/LONG WAVE TUNER

Based on a Mullard RF/IF module, this tuner features high sensitivity and clarity. Builtin battery, slow motion tuning. Built on a printed circuit. Metalwork, pc and all parts supplied. Complete with construction details. (Battery 15p. extra).

Dimensions 178mm x 70mm x 99mm

Battery PP3

Output 150mV approx.

PRICE	CODE
£6.90	A048

Carr/Pack '8'

15 WATT INVERTOR

A small invertor designed for running low powered mains-driven appliances from 12V battery supply, such as razors, camping lights, etc. Not suitable for electric clocks. Supplied with construction details.

Input 12-14V DC @ 2A

Output 240V AC @ approx. 50Hz

15 watts

Dimensions 155mm x 104mm x 58mm

PRICE	CODE
£6.45	A052

Carr/Pack '8'

CHORISTER PORTABLE

A three waveband portable, featuring medium wave, band spread medium wave and long wave; designed around a Mullard RF/IF module with slow motion tuning. Shatter proof fibreglass cabinet with carrying handle. Approximately 600mW output, runs from a PP7 battery. All parts supplied (Battery extra) with detailed assembly instructions.

Dimensions 216mm x 140mm x 83mm

Weight 1.4Kg.

Carr/Pack '8'

PRICE	CODE
£11.55	A049

TBA800 AMPLIFIER KIT

A single 5W IC amplifier using the well known TBA800 amplifier IC. Features high sensitivity and low distortion. 4-8 ohms output. May be used with power supplies as low as 5V. Supplied complete with all parts and instructions. Typical characteristics:

Supply voltage 5-28V

Quiescent current 10mA @ 24V

Output power 5W @ 24V into 8 ohms

Dimensions 89mm x 64mm x 25mm

PRICE	CODE
£3.45	A053

Carr/Pack 'A'

"7 TRANSISTOR" PORTABLE

An outstanding portable radio kit. Sensitivity and selectivity on both medium and long wave bands. 2 colour leather-cloth finished wooden cabinet for superb sound quality. Clear instruction booklet and screen printed circuit. Approximately 500mW output, powered by a PP9 battery. All parts supplied. (Battery extra) with instructions.

Dimensions 254mm x 179mm x 89mm

Weight 1.56Kg

Carr/Pack '8'

PRICE	CODE
£11.55	A050

76003 5W AMPLIFIER KIT

5W IC amplifier kit which complements the TBA800 featuring high sensitivity and low distortion, the IC provides an output for 8-25 ohms loads. Intended for use with supply voltages up to 36V supplied complete with all parts and instructions. Typical characteristics:

Supply voltage 15-36V

Quiescent current 8mA @ 24V

Output power 5W @ 36V into 16 ohms

Dimensions 89mm x 64mm x 38mm

PRICE	CODE
£3.15	A054

Carr/Pack 'A'

40 WATT INVERTOR

A standby unit powered from a car battery with an output of approximately 240V AC. Ideal for use in the garage, or emergency lighting during power cuts, etc. May also be used for some types of central heating pumps. Supplied with construction leaflet.

Input 12-14V DC @ 5A

Output 240V AC @ approx. 50Hz

40 watts

Dimensions 127mm x 122mm x 107mm

PRICE	CODE
£8.60	A051

Carr/Pack '8'

9V BATTERY ELIMINATOR

A regulated 9V battery eliminator intended to be built into a PP9 battery case. Incorporates current limiting at 100mA to protect both radio and power supply in the event of a mains surge. Two tier construction on two printed circuit boards. All parts supplied except PP9 case and a length of 6BA studding. Construction leaflet included.

Output 9V @ 100mA max.

Dimensions 75mm x 64mm x 48mm.

PRICE	CODE
£2.10	A035

Carr/Pack 'A'

ELECTRONIC COMPONENTS

LARGE RANGE ALWAYS IN STOCK FOR YOUR CIRCUITS. NEW TYPES ARRIVING EVERYDAY.

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

SINGLE and MULTI-CHANNEL RADIO CONTROL KITS *(Available from Sept 1975)*

Kit 1 Basic single transmitter kit. Self contained crystal controlled tone modulated transmitter, transmitting on 27MHz. Aerial input power approx 400mW, giving a usable line of sight range of up to 2 miles. Complete with 137 cm telescopic aerial, all parts and printed circuit and instructions.

Grey plastic case, extra.
(Not required if Kits 1 & 2 are used together.)

PRICE	CODE
	A058
	A059

Uses PP9 battery, extra.

Kit 2 An add-on kit for Kit 1, containing extra components for the transmitter, and a mother board carrying the extra circuitry for a digital proportional encoder. Maximum of 7 discrete channels may be used. Uses ultra-low power COS/MOS integrated circuits for optimum battery consumption. Control is by slide pots. May also be adapted for up to 7 channel 'on-off' control or a combination of proportional and 'on-off' up to a maximum of 7 Channels. Supplied complete with case, printed circuit, and all parts. But less pots and switches, to allow choice of number of proportional and 'on-off' channels to be used.

Uses PP9 battery extra.

PRICE	CODE
	A060

Switches: Miniature single pole single throw see Section C

Pots: 10K 1in slide see Section C

Kit 3 Basic receiver kit. Light weight crystal controlled superhet receiver for use with 27MHz transmitters. Crystal is matched to the transmitter for 465KHz IF. Output is suitable for low power relays, or multi-channel decoders. Suitable for aerial lengths up to 140 cm (min. 45 cm). Supplied complete with all parts, printed circuit, plastic case and instructions. Suitable for 4.5 – 6V battery supply.

Uses 3 or 4 HP7 batteries, extra.

PRICE	CODE
	A060

Kit 4 An add-on 7 channel proportional decoder for Kit 3. Containing COS/MOS integrated circuits for minimal battery drain, and high spurious noise immunity. Accepts the output of Kit 3, and decodes to 7 discrete outputs to feed servos, 'on-off' switches, etc. Suitable for 4.5 – 6 V battery supply. Supplied complete with all parts and plastic case.

Uses 3 or 4 HP7 batteries, extra.

* Servo for proportional control from Kit 4

* 'on-off' switch suitable for use with Kit 4

* Actuator, suitable for use with Kit 3 via low power relay

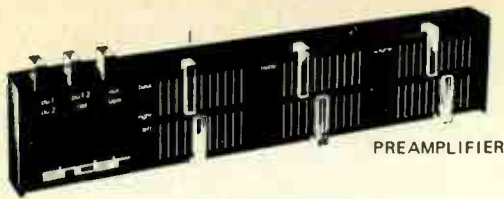
* Complete details available August – September 1975.

PRICE	CODE
	A061
	A062
	A063
	A064

Send for leaflet No. 8 (30p) for complete details of the HENELEC RADIO CONTROL SYSTEM.
(Available Sept 1975).

Miniature radio control crystals, Orange group. 27.255 MHz (transmitter)
26.790MHz (receiver) See Section D

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. **PRICE INCLUSIVE OF V.A.T.**



PREAMPLIFIER

A

Project 80^o power amplifiers

Intended for use in Project 80 installations, these modules readily adapt to an even wider range of applications. Both incorporate built-in protection against short circuiting and risk of damage from mis-use in greatly reduced.

Z.40

Size: 55x80x20mm; 9 transistors; input sensitivity: 100mV Output: 12 watts RMS continuous into 8 ohm (35v); Frequency response: 10Hz—100KHz ± 1dB; S/N ratio: 64dB; Distortion: 0.1% at 10 watts into 8 ohm at 1KHz; Power requirements: 12 to 35 volts.

PRICE	CODE
£6.55	A065

Z.60

Carr/Pack 'A'

Size: 55 x 98 x 20mm; 12 transistors; input sensitivity: 100—250mV; output: 25 watts RMS continuous into 8 ohm (50V); Distortion: 0.02% at 10W/8 ohm/1KHz; Frequency response: 10Hz to more than 200KHz ± 3dB; S/N ratio: better than 70dB; built-in protection against transient overload and short circuiting; load impedance: 4 ohm min; max. safe on open circuit.

PRICE	CODE
£8.35	A066

Carr/Pack 'A'

Stereo 80 pre-amp/control unit

260x50x20mm. Separate slider controls on each channel for treble, bass and volume. INPUTS: Mag. P.U 3mV (RIAA corrected) ceramic; 300mV, Radio 100mV, Tape 30mV. S/N ratio 60dB. Frequency range: 20Hz to 15KHz ± 1dB. OUTPUTS: 2.5V rms max. (30V supply) and tape plus AB monitoring. PRESS BUTTONS for P.U., Radio and Tape. OPERATING POWER: 20 to 35V. Black case with white indications.

PRICE	CODE
£14.35	A064

Carr/Pack 'A'

Project 80 FM tuner

Size 85 x 50 x 20mm. Tunes 87.5 to 108 MHz. DETECTOR: IC balanced coincidence (IC equivalent to 26 transistors). Distortion: 0.2% at 1KHz for 30% modulation. SENSITIVITY: 5 microvolts for 30dB quieting. Output: 300mV for 30% modulation. Aerial imp.: 75 ohm or 240—300 ohm. Dual Varicap tuning. 4 pole ceramic filter. Switchable A.F.C. Operating power: 23—30 volts.

PRICE	CODE
£14.35	A067

Carr/Pack 'B'

Project 80 stereo decoder

Size 47 x 50 x 20mm. For adding to Project 80 FM tuner. With one IC equal to 19 transistors, and LED indicator which glows on tuning in stereo signal.

PRICE	CODE
£9.55	A068

Carr/Pack 'A'

Project 80 active filter unit (A.F.U.)

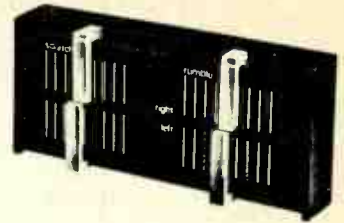
Size 108x50x20mm. Useful where there is need to eliminate unwanted high frequencies (scratch, whistle, etc) or low (rumble). Voltage gain: -0.2dB. Frequency response (filter at zero) 36Hz to 22KHz. H.F cut (scratch) variable from 22KHz to 5.5KHz 12dB/octave slope. L.F cut (rumble): 28dB at 28Hz, slope 9dB/octave.

PRICE	CODE
£8.35	A069

Carr/Pack 'A'



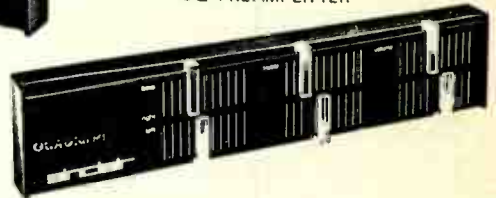
FM TUNER



AFU



DECODER



SQ PREAMPLIFIER

Project 80SQ quadrophonic decoder

Size: 260x50x20mm, matching Stereo 80 in style. Connects with tape socket on stereo 80 or similar facility on any stereo amplifier. Frequency response: 15Hz to 25KHz ± 3dB. Distortion: 0.1%. S/N ratio 58dB. Rated Output: 100mV. Separate bass and treble slider controls on each channel, also volume. Phase shift network 90°+100, 100Hz to 10KHz. Operating power: 22—35 V.

PRICE	CODE
£22.75	A070

Carr/Pack 'A'

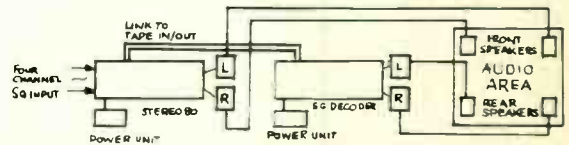
Project 805

The complete ready-to-build hi-fi stereo amplifier

Project 805 comprises a Stereo 80 Pre-amp/Control Unit with input for both magnetic and ceramic cartridges, radio, tape; separate bass and treble cut/lift, and volume controls 2 x Z.40 power amplifiers, PZ.5 power unit, 805 Masterlink wire loom, instructions manual, etc. down to nuts, bolts and washers.

PRICE	CODE
£35.85	A071

Carr/Pack 'B'



Add a fourth dimension to your stereo sound with Project 805SQ

The output from any good stereo cartridge feeds into Stereo 80 and passes via the tape outlet to the 805SQ decoder. Here the signal is separated into its constituent 4 channels, those for the front being accepted by the Stereo 80, those for the rear going from the decoder to the two additional power amplifiers and speakers.

PRICE	CODE
£53.95	A072

Carr/Pack 'B'

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.



PZ8

PZ.5 Power-supply unit
Unstabilized 30 volts.
Suitable for Z.40
assemblies, etc.

Carr/Pack A

PRICE	CODE
£6.00	A075

PZ.6 Power-supply unit
Stabilized. Output voltage
adjustable between 20 & 50
volts approx. Protecting fuse. Carr/Pack A

PRICE	CODE
£9.60	A076

PZ.8 Power-supply unit (A077)

Stabilized. Output adjustable from 20 to 60V. approx. Re-entrant current limiting makes damage from overload or even shorting impossible.

Without mains transformer.

Carr/Pack A

PRICE	CODE
£9.60	A077

PZ.8 Transformer (A078)

Carr/Pack A

PRICE	CODE
£4.30	A078

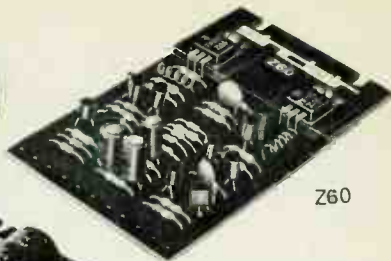
PZ.20 Power Supply for IC20 (A079)

Carr/Pack A

PRICE	CODE
£6.55	A079



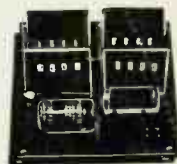
PZ5



Z60



Z40



IC20

**IC 20 20 WATT
IC STEREO AMP**

PRICE	CODE
£9.90	A085

£7.95

SINCLAIR MICROMATIC

The world's most successful miniature radio

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; Everything, including the batteries, is contained within the attractively designed case.



SPECIFICATIONS

SIZE: 46 x 37 x 13mm. WEIGHT: including batteries, 1oz. 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. A080
Ready built, tested and guaranteed, with earpiece. A081
Mallory Mercury Cell RM675 (2 required)

PRICE	CODE
£2.95	A080
£3.55	A081
18p	A082

ALL CARRIAGE/PACKING 'A' SINCLAIR SCIENTIFIC

An advanced 12 function calculation kit with a 200 Decade range.

Basic Log and Trig functions. Post fixed operation logic allows chain calculations of unlimited length.

PRICE	CODE
£14.30	A083

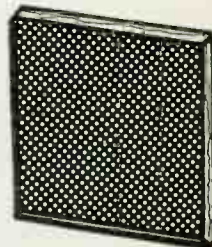
ALSO BUILT AND TESTED

PRICE	CODE
£15.95	A084



Sinclair Q.16 loudspeaker

An original and uniquely designed speaker of outstanding efficiency. Balanced sealed sound chamber and special driver assembly. Loads up to 14 W./R.M.S. 8 ohms imp. Size 248 mm square x 120 mm deep. Pedestal base. All-over black front, teak surround.



Carr/Pack B

per pair

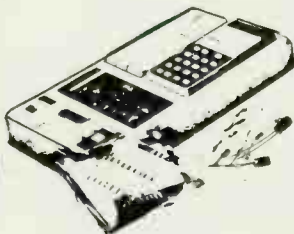
PRICE	CODE
£20.30	A087

SINCLAIR CAMBRIDGE
**BUILD THIS POCKET
ELECTRONIC CALCULATOR**
Complete Kit as previously
advertised at much higher
prices. Size: 101 x 50 x 17 mm

PRICE	CODE
£9.90	A088

ALSO BUILT AND TESTED

PRICE	CODE
£10.50	A089



WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

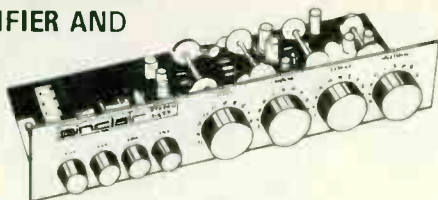
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

sinclair

project

60 & 605 Special Offers

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 ± 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: 5 mA.

Power Requirements: PZ.5 or PZ.6.

Finish: Brushed aluminium front panel with black knobs.

Mounting: On cabinet front by spindle brushes and adjustable brackets.

Ready built, tested and guaranteed:

Carr/Pack B

PRICE	CODE
£8.15	A091



An extension of Project 60 System, but with no soldering. Uses a new masterlink connector unit and cable assembly. Supplied complete with full handbook showing details of building Project 605 into the plinth of popular Garrard and BSR-McDonald turntables.

Carr/Pack

PRICE	CODE
£23.95	A092

HENRY'S DIGITAL CLOCK Mk.II For the experienced constructor LEAFLET No. 31 PRICE 25p inc. P/C

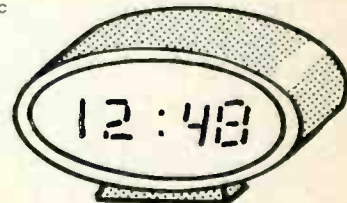
The clock described employs conventional digital counting techniques, offering the option of low voltage seven-segment, or nixie type readout; readout to tenths of seconds if desired, and crystal or 'mains locked' clocking. Stop, start, and preset options are provided, allowing the clock to be held at any desired figure, and also to be preset or advanced to any figure. Alternative 12 or 24 hour format is described.

MM5314 Clock chip FUNCTIONAL DESCRIPTION

These digital clocks operate from a half wave rectified 50 or 60Hz input. This input signal is squared by a shaping circuit having 5 volt hysteresis. This signal is then divided by either 50 or 60 depending on the '50/60Hz SELECT' input. Three other counter stages complete the division to 12 or 24 hours depending on the '12/24 hour SELECT' input. Logic gates between the counters allow time setting at the rate of one hour digit per second or one minute digit per second. A 'hold' input allows stopping the entire counter chain. The multiplexer samples the outputs from the seconds, minutes and hours counters (in the six digit mode) or from the minutes and hours counters (in the four digit mode), routing this data to a programmable ROM which is normally programmed to provide BCD and 7-segment outputs. The multiplex rate is controlled by the multiplex oscillator and divider. The six (or four) states of the divider are decoded and brought out on the six or four digit enable lines; each one indicates in succession the digits' information being presented at the BCD and 7-segment outputs. The multiplex oscillator frequency is controlled by external frequency selecting elements, normally a resistor and capacitor. The BCD and 7-segment outputs can be gated by the 'output strobe' line. All outputs are compatible with bipolar devices, necessitating few external components for the display interface. Only one power supply is required for operation. LEAFLET REF. No. 53 (SUGGESTED CIRCUIT & DATA) AVAILABLE ON REQUEST

PRICE	CODE
£6.85	A094

Carr/Pack



Impression of typical application

STROBOSCOPIC IGNITION TIMING LIGHT LEAFLET REF. No. 50 (Circuit & Data) AVAILABLE ON REQUEST

Based on an original design by F.T. Kler, published PRACTICAL ELECTRONICS, Jan. 1974.

Electronic IGNITION SYSTEM

Designed by D. G. Fripp and published in PRACTICAL June/July 1972. LEAFLET REF. No. 10 AVAILABLE AT 15p

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

ELECTRONICS BOOKS, PUBLICATIONS AND LEAFLETS

BERNARDS & BABANI PRESS RADIO AND ELECTRONICS BOOKS

BP1	First Book of Transistor Equivalents and Substitutes	40p	BP21	Practical Circuits for Solid State Receivers	75p
BP2	Handbook of Radio, T.V. and Ind. & Transmitting Tube & Valve Equiv.	60p	BP22	79 Electronic Novelty Circuits	75p
BP3	Handbook of Tested Transistor Circuits	40p	126	Boys Book of Crystal Sets	25p
BP4	World's Short, Med. & Long Wave FM & TV Broadcasting Stations Listing (Internat.Ed.)	60p	129	Universal Gram-Motor Speed Indicator	8p
BP5	Handbook of Simple Transistor Circuits	35p	150	Practical Radio Inside Out	40p
BP6	Engineers and Machinists Reference Tables	20p	160	Coil Design and Construction Manual	50p
BP7	Radio and Electronic Colour Codes and Data Chart	15p	161	Radio, T.V. and Electronics Data Book	60p
BP8	Sound and Loudspeaker Manual	50p	177	Modern Transistor Circuits for Beginners	40p
BP9	38 Practical Tested Diode Circuits for the Home Constructor	35p	183	How to Receive Foreign TV Programmes on your Set by Simple Modifications	35p
BP10	Modern Crystal and Transistor Set Circuits for Beginners	35p	195	High Fidelity 14 W Amplifier Design Chart	15p
BP11	Practical Transistor Novelty Circuits	40p	196	AF-RF Reactance - Frequency Chart for Constructors	15p
BP12	Hi-Fi, P.A., Guitar & Discotheque Amplifier Design Handbook	75p	197	Inexpensive Push-Pull Amplifier Construction Chart	15p
BP13	Electronic Novelties for the Motorist	50p	200	Handbook of Practical Electronic Musical Novelties	50p
BP14	Second Book of Transistor Equivalents	95p	201	Practical Transistorised Novelties for Hi-Fi Enthusiasts	35p
BP15	Constructors Manual of Electronic Circuits for the Home	50p	202	Handbook of Integrated Circuits (IC's) Equivalents and Substitutes	75p
BP16	Handbook of Electronic Circuits for the Amateur Photographer	60p	203	IC's and Transistor Gadgets Construction Handbook	60p
BP17	Radio Receiver Construction Handbook using IC's and Transistors	60p	204	Second Book of Hi-Fi Loudspeaker Enclosure	60p
BP18	Boys & Beginners Book of Practical Radio and Electronics	60p	205	First Book of Hi-Fi Loudspeaker Enclosures	60p
BP19	Second Constructors Manual of Electronic Circuits for the Home	75p	206	Practical Transistor Circuits for Modern Test Equipment	60p
BP20	Ham's Handbook of Radio and Electronic Circuits	75p	207	Practical Electronic Science Projects	75p
BP21	Practical Circuits for Solid State Receivers	75p	208	Practical Stereo and Quadrophony Handbook	75p
			209	Modern Tape Recording Handbook	75p
			RCC	Resistor Colour Code Disc Calculator	10p
			BP23	1st Book of Practical Electronics Circuits	75p
			211	1st " of Diode Characteristics@ Equivalents	95p

PERIODICALS

Practical Wireless	30p
Practical Electronics	30p
Every Day Electronics	30p
Radio Constructor	30p
Electronics Today International	30p

PUBLISHERS RE-PRINTS

Practical Wireless Teletennis	75p
'20 Best' from Electronics Today International	75p

BOOKS

'Mullard Data Book'	30p
'Mullard Transistor & Radio Circuits'	1.80
'Twenty Solid State Projects'	1.40
'One Hundred and Ten Semiconductor Projects'	1.25
'20 Solid State Projects for Car & Garage'	1.20
'One Hundred and Ten IC Projects'	1.20
'Denco DBT4 Coil Data Book'	10p
'Wireless World Valve & Transistor Data Book'	75p
'Second Book of Transistor Equivalents and Substitutes'	95p
'Handbook of IC's and Substitutes'	75p
'Transistorised Radio Control'	2.50
'104 Easy Projects'	1.20
'Making and Repairing Transistor Radios'	1.00
'Semiconductors A to Z'	1.50
'Stereo and Quadrophonic Hi Fi'	1.35
'Tape Recorder Repair'	1.40
'Four Channel Stereo'	1.35
'How to Fix Transistor Radios'	1.60
'Amateur Electronics' (Josty)	3.30

HENRY'S LEAFLETS & BROCHURES

1	7 Transistor Radio Construction Data	10p
2	Choristor Radio Construction Data	10p
5	Henelec FM Tuner Construction Data	30p
6	ML-3 AM Tuner Construction Data	
7	4-300 300mW Amplifier	
8	Radio Control available July/Aug.	30p
10	PW Electronic Ignition (Reprint June July '72)	10p
13	9V Regulated Power Supply (Reprint)	10p
15	TBA800 5w Amplifier Data & Construction	10p
17	Latest Hi-Fi Stock List	
18	Latest Disco Stock List	
19	PW Midget Radio (ZN414) (Reprint Jan. '73)	10p
20	Texan Price List	
21	PW Texan Amplifier Reprint	30p
23	76003 5w Amplifier Data & Construction	10p
27	Ultra Sonic Transducers	
27A	Ultra Sonic Transducers with IC Amplifiers	
29/2	TTC IC Data Book	15p
30	Linear IC Data Book	15p
31	Digital Clocks for the Experienced Constructor	15p
36	Latest Semiconductor Price List	
37	3015 F Minitron Data	
39A	MM5014 Single Chip Digital Clock Data	
43	Fluorescent Camping Light	5p
50	Stroboscopic Ignition Lamps Leaflet	10p
51	Mullard LP1185 & LP1186 Circuits and Data	

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

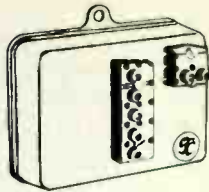
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PUBLICATIONS NOT SUBJECT TO V.A.T.

GADGETS AND INTERESTING PROJECTS

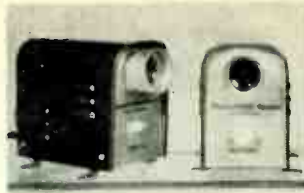
A



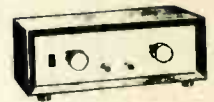
US50



STC Module



XP4002



H67



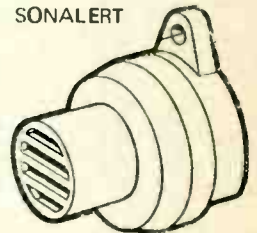
RA859



EA41



HR



SONALERT

US 50 ULTRASONIC SWITCH

The torch shaped transmitter sends out a narrow ultrasonic beam when the button is depressed. The receiver operates a relay when the ultra-sonic signal is received. Operating range 12m. Max. Switch Load 600W. Operating Frequency 38 KHz Carr./Pack B

PRICE	CODE
£25.87	A099

STC TIMER MODULE

An adjustable delay unit, operating 3-15 seconds after receiving the signal. Powered from a 9-12V source, consuming approximately 10mA in the quiescent mode. 10A relay contacts. Dozens of uses, Supplied with connection data and circuits of typical applications. Supply 9-12V. Max. Switch Load 10A @ 9-12 v. Dimensions 83mm x 63mm x 38mm Carr./Pack A

PRICE	CODE
£1.65	A100

DIMMER CONTROLLERS

LDA 750 watt lamp dimmer intended for flush wall fitting. Infinitely variable from zero to full brilliance. May also be used as a drill speed controller. Carr./Pack A

PRICE	CODE
£4.45	A101
£4.85	A102

DLD de luxe version of the above,

finished in satin chrome. Carr./Pack A

HR Infinitely variable lamp dimmer rates at 1.6KW max. Made by a famous manufacturer to the highest standards. Suitable for domestic lighting, stage dimmers, motor control, etc. Supplied with standard mounting plate and knob. Carr./Pack A

PRICE	CODE
£4.05	A103

H67 (HA10) STEREO HEADPHONE AMPLIFIER

A self powered 10 transistor amplifier, accepting inputs from magnetic or ceramic cartridges, or a tuner, tape recorder, etc. Gives excellent results with any 8 ohms phones. Dimensions 185mm x 70mm x 100mm. Output Power 50mW per channel. Powered by PP3 Batt. Carr./Pack B

PRICE	CODE
£13.70	A104

EA41 (RA856) REVERB AMPLIFIER

Battery operated transistorised reverberation amplifier suitable for use with microphone, guitar or other low level source. Volume, on/off control, depth control. Input 5mV @ 10K. Output 0-600 mV. Delay 20-30 mS. Dimensions 190mm x 75mm x 110mm. Powered by PP3 Batt. Carr./Pack B

PRICE	CODE
£14.70	A105

RA859 REVERB AMPLIFIER

Mains operated 2 channel reverberation/mixer unit for two microphones or two instruments or either. Mix and fade on either channel. Hard wearing PVC leather grained cabinet with carrying handle. Input 2 @ 600 ohms or 100K. Output 500mV @ 100K. Delay 20-30 mS. 220-240v 50 Hz. Dimensions 300mm x 88mm x 170mm. Carr./Pack B

PRICE	CODE
£24.15	A106

XP4002 (Q4002/PEA400) PHOTO ELECTRONIC SWITCH

This mains operated photo electronic switch operates a relay when the light beam between the two units is interrupted. Lamp unit emits white light, or red filter may be fitted. Adjustable sensitivity control stops the unit triggering under bright light conditions. Daylight range 4-5 metres, night time 15 metres.

220-240V 50Hz. Output 220-240V 250W

PRICE	CODE
£23.32	A107

SONALERT ALARM

Audible warning device operating from 12V DC, emits a piercing note when activated. Voltage 12V DC. Frequency 2.6KHz. Carr./Pack A

PRICE	CODE
£1.65	A108

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

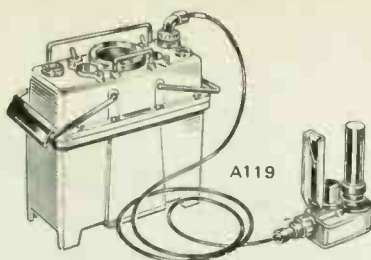
GADGETS AND INTERESTING PROJECTS



A114



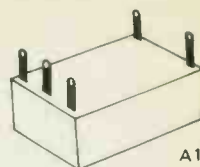
A117



A119



A120



A118



A121



A115

PHILIPS 12 VOLT LIGHTING INVERTER

Brand new Philips 12v DC emergency light unit. Suitable for use from large dry batteries or a car battery. Inverter output 8W for miniature 12-15" tubes. Ideal for car, caravan, garage, etc. Supplied complete with 12" tube and pelmets.

COMPLETE

Carr/Pack B

PRICE	CODE
£3.80	A113

420 ES MICROSCOPE

A self-illuminating 4 position turret lens, giving magnification up to 750x, rack and pinion focusing. Sturdy black crackle finish with batteries mounted in the base. Sample slide and instructions provided.

105mm at base, 180mm high. Weight 400 gr.

Carr/Pack B

PRICE	CODE
£8.10	A114

GRAVINER INFRA RED DETECTOR, PHOTO MULTIPLIER

Contains a photo-multiplier tube type 931A with networks sealed in a metal case with a quartz window. Designed for use as a heat or fire detector. Brand new in original cartons. (Original manufacturer's price £74). Supplied with leaflet.

Carr/Pack A

PRICE	CODE
£3.80	A115

QA10 QUAD-ADAPTOR

An add-on quadrophonic adaptor for synthesizing 4-channel sound from a stereo source. Input and output impedances 8 ohms, may be used with most speaker systems. Switchable for 2-channel (stereo) or 4-channel surround sound or 4-channel full effect. Separate level control for rear speakers. Finished with brushed silver facia and wood veneered cabinet. Dimensions 157mm x 65mm x 130mm

Carr/Pack B

PRICE	CODE
£11.85	A116

VH105 AIRCRAFT BAND CONVERTOR

A most popular unit for instant conversion of any AM (medium wave) radio to cover the aircraft band. By placing the convertor about 30mm from the radio set and tuning to a dead part of band, the convertor allows the radio to tune over 110-135MHz.

Adjustable sensitivity control. Contained in a tough black moulded case, with silver facia. 470mm telescopic aerial fitted. Supplied complete with battery and instructions.

Dimensions 72mm x 100mm x 60mm

Carr/Pack A

PRICE	CODE
£5.00	A117

SD1/A50 MAINS SUPPRESSOR

This in line mains interference suppressor effectively eliminates mains borne interference from such things as noisy switches, thyristor lamp dimmers, central heating pumps, etc. Fitted in the mains lead of Hi-fi equipment, radios, etc. Supplied with information sheet.

Max. Load 1 Amp

Dimensions 45mm x 30mm x 25mm (over togs)

Carr/Pack A

PRICE	CODE
£3.15	A118

RADIATION DETECTOR

Provides measurement of Gamma radiation from 0-10 milli-Roentgens per hr with CV2247 tube supplied. Provision for headphones. Powered by 4 penlight batteries via the HT eliminator. Supplied complete with probe unit, haversack, instructions, indicating unit, Geiger tube and HT eliminator.

Carr/Pack C

PRICE	CODE
£10.75	A119

QUARTZ FIBRE POCKET DISOMETERS

Pocket size electrostatic radiation detectors. Brand new.

Type B 0-150R

Type C 0-50R

Type D 0-5R

Carr/Pack A

PRICE	CODE
70p	A120

REVERBERATION SPRING UNITS

Twin spring lines, housed in metal cases, for echo and reverb. amplifiers.

HR42

Dimensions 232mm x 54mm x 29mm

Frequency Response 80Hz-4KHz (Useful range 40Hz-10KHz)

Drive Coil 16ohms 500mW max.

Pickup Coil 10K ohms

Sensitivity -35dB

Delay time 25-30ms

Reverb time 2.5S @ 1KHz.

Carr/Pack A

PRICE	CODE
£4.15	A121

HR162

Dimensions 429mm x 96mm x 34mm

Frequency Response 50Hz-5KHz (Useful range 30Hz-12KHz)

Drive Coil 16ohms 500mW max.

Pickup Coil 10K ohms

Sensitivity -42dB

Delay time 35-40ms

Reverb time 2.4S @ 1KHz

Carr/Pack B

PRICE	CODE
£8.55	A122

Also available with Reprint of Practical Electronics article on reverb units.

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

VARIABLE VOLTAGE TRANSFORMERS

MODERN STYLING FOR MODERN EQUIPMENT
ALWAYS AVAILABLE ... ALWAYS REPEATABLE

A



12 Amp.

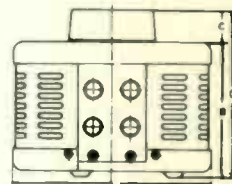
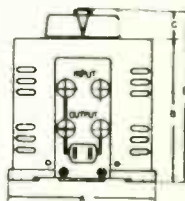
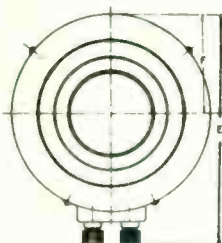
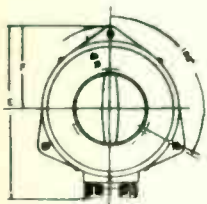


1 & 2.5 Amp.



5 & 10 Amp.

All models 230/250 VAC Input 50/60 cps. 0-260 VAC Output



MILLIMETRES

	RATING	A	B	C	D	E	F	GR	Wt.Kg.	PRICE	CODE	Carr/ Pack.
1 amp.	230 VA	107	117	20	137	130	61	56	1.9	£13.75	A256	B
2.5 amp.	575 VA	129	125	25	150	152	73	66	4.1	£17.75	A257	B
5 amp.	1150 VA	143	110	25	135	168	72		6.2	£27.00	A258	C
10 amp.	2.3 KVA	174	130	30	160	200	86	97	8	£37.25	A259	C
12 amp.	2.4 KVA	203	130	30	164	235	102	108	12	£38.60	A260	C

Constant Voltage Transformer

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 \pm 20% 50 Hz. Output: 240 VAC \pm 1%.

Fitted inlet and outlet sockets, neon indication and on/off switch.

Attractive wood grain finish metal case. Size: 10" x 6" x 4". Weight: 21 lbs.

Available in 150-watt and 225-watt models — state which.

(AUTOMATIC MAINS STABILISER
150 & 225 WATT MODELS)

PRICE	CODE
£17.80	A262



CARR/PACK 'C'

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

* 20 WATTS OUTPUT PER CHANNEL

* FULLY INTEGRATED STEREO
PREAMPLIFIER AND
POWER AMPLIFIER

* 6 INTEGRATED CIRCUITS
10 TRANSISTORS
6 RECTIFIERS & ZENER DIODES

* STABILISED AND PROTECTED
CIRCUITRY

* FIBRE GLASS PRINTED CIRCUIT

* GARDNERS LOW FIELD -
LOW LINE TRANSFORMER

* SLIM DESIGN - CHASSIS
OVERALL SIZE 388 x 152 x 51 mm

* ALL FACILITIES AND CONTROLS

* PROFESSIONAL APPEARANCE
AND PERFORMANCE



TOTAL COST TO BUILD **£38.75**
INCLUSIVE OF V.A.T. POST ETC. UK 80p

ALSO AVAILABLE
BUILT AND TESTED **£46.87**
INCLUSIVE OF V.A.T. Post etc. UK 80p



DESIGNER APPROVED KITS ONLY AVAILABLE FROM HENRY'S

HENRY'S-TEXAS DESIGN FOR HOME CONSTRUCTION

Henry's RADIO
EDGWARE ROAD, W2

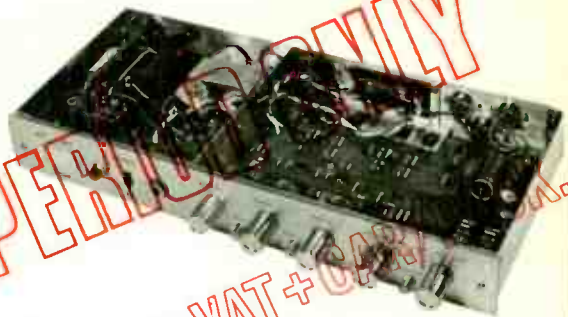
404-406 Electronic Components and Equipment 01-402 8381
309 PA Disco Lighting High Power Sound 01-723 6963
303 Special offers and bargains store
ALL MAIL to 303 Edgware Road London W2 1BW
A MEMBER OF THE HENRY'S GROUP OF COMPANIES

Open -
9 am - 6 pm
All stores
open all day
Saturday

HENRY'S THE ELECTRONICS SPECIALISTS

SAY

WANTED
BY ALL AUDIO FANS
the **'TEXAN'**



REWARD

True Hi Fi at a remarkably low cost. It has all the features you could want - 20W r.m.s. per channel - less than 0.1 per cent distortion at 1kHz - scratch and rumble filters - and so much more and it couldn't be easier to build. Six i.c.'s take care of the earlier stages while the printed circuit board metalwork and the special low field mains transformer will all be laid on especially for this project.

The **Texan** has a beautiful appearance and beautiful performance and has been designed by **Richard Mann of Texas Instruments**.

UNBEATABLE IN EVERY WAY!

FEATURED BY PRACTICAL WIRELESS
MAGAZINE, MAY TO AUGUST, 1972

'TEXAN'

SPECIAL
KIT PRICE**£38.75**post (UK) 80p
(INCLUDING VAT)

PACK 1	72 Resistors	£2.00	PACK 6	4 pole 3 way selector 'TEXAN'	
PACK 2	36 small capacitors and bead tantalums	£2.75	2	100K Lin. Ganged PC controls 2dB	
PACK 3	2 x 3500µ 50V 2 x 1000µ 25V	£2.87	1	10K Log. " " "	
PACK 4	20mm Fuse Holder 1 amp A S 20mm Fuse 2 - Twin 1 1/4" Fuse Panels 4 - 2 amp 1 1/4" Fuses 2 - Din speaker sockets 3 - 5 pin Din sockets 1 - Texan stereo jack socket 1 - Texan Mains Neon 1 - Tub Silicon Grease 5 - Knobs (H103)	£4.02	1	5K Lin. control PC	£2.07
PACK 5	1 - Texan on/off switch 1 - 2p 2way slide switch 1 - 2 pole push switch } Fitted 2 - 4 " " " } Knobs	£1.38	PACK 7	4 - SN72748P IC's 2 - SN72741P IC's 6 - IC sockets for above 4 - IN4002 Rectifiers 4 - BC182 Transistors 2 - BC212 Transistors 2 - IS2015A Zeners 2 - TIP42A } with micas 2 - TIP41A } and washers	£8.00
TOTAL COST OF ALL PARTS, INCLUDING SPECIAL PRICE FOR TRANSISTOR RESISTOR CAPACITOR PACKS IS OVER £32.			PACK 8	Texan Transformer	£6.48 post 40p
Please allow adequate postage when ordering separately. ALL PRICES INCLUSIVE OF VAT			PACK 9	Texan Fibre Glass PC Panel	£4.37
			PACK 10	Complete chassis work, hardware and brackets	£5.67 post 30p
			PACK 11	Preformed cable/leads	0.87
			PACK 12	Handbook reprint (Available Aug/Sept.)	0.30

NOTE All parts supplied for the Texan are fully guaranteed subject to the standard conditions of sale of the company and of its suppliers. Specifications and parts are subject to change without notice.

GUARANTEE AND AFTER SALES SERVICE. The 'Texan' is guaranteed to perform as per the articles published by 'Practical Wireless' and as laid down by its designer of Texas Instruments Ltd. Constructed properly no problems will arise, however 'Henry's' are prepared to test and service the Texan if required subject to examination as to standard of construction. A minimum charge of £2, payable in advance, will be made (including return postage, if applicable). The responsibility of safe return to Henry's is that of the sender. Service facilities are available as long as the unit is constructed wholly using specified parts and suitable tools. The decision of the company concerning these matters is final.

HAVE FUN IN CONSTRUCTION - TAKE CARE AND GET THE BEST PERFORMANCE

DESIGNER APPROVED KITS AVAILABLE ONLY FROM HENRY'S

E. & O. E.

HENRY'S RADIO

ELECTRONICS FOR EVERY PURPOSE

Main London Agents for SINCLAIR, AMTRON, JOSY, DENSAI, TURNER, RADIONIC KITS

UK'S LARGEST STOCKISTS OF SEMICONDUCTORS, COMPONENTS AND EQUIPMENT

GARRARD CT4's Mk III

FRONT LOADER

STEREO CASSETTE PLAYER & RECORDER MECHANISM. FITTED STEREO R/PR AND ERASE HEADS.

Incorporates facilities for recording, playback, pause, fast forward and reverse wind, erase rest, automatic tape end stop and cassette release.

A precision engineered mechanism, robust in construction, and based on the 'Starr' patented design.

Ideal for use in car stereo cassette players, HI/FI stereo cassette recorders and many other applications.

PRICE	CODE
£13.50	A265

Carr/Pack 'B'



BLOWER MOTOR

Mains operated Blower Motor (230v 50/60 cycles). Operates at 3100 R.P.M. and will 'move' approx. 1,000 cubic feet of air in 1 hour.

IDEAL FOR MANY USES

PRICE	CODE
£4.75	A266

Carr/Pack 'B'



ULTRASONIC TRANSDUCERS (Leaflets 27 & 27a available on request)

AND TAA960 TRIPLE AMPLIFIER IC FOR USE WITH TRANSDUCERS (Carr/Pack 'A')

Transducers can be used for simple remote control without electrical cables or electronic links, two basic units only being required. The Transducers are suitable for both transmitting and receiving and have high efficiency and do not interfere with nearby electronic systems.

COMMERCIALY, ultrasonic control can be used for a variety of purposes including remote control of television sets and household equipment, the opening of garage doors, main door admission to blocks of flats, alarm systems and remotely controlled models, etc.

INDUSTRIALLY, the transducers are suitable for the control of intermittent and varied production processes, the opening of factory gates and doors for mechanical handling vehicles and transport and other functions in laboratories and plant.

The piezoelectric effect of PZT materials allows one to transform an electric signal into an acoustic one, and vice versa. One application of this is an ultrasonic air transducer, operating at 36kHz (resonance mode) or 39kHz (antiresonance mode).

DESCRIPTION

The transducer is mounted in a cylindrical plastic housing with connection via snap fasteners. The essential transducer element is a square bimorph (dimensions 8mm x 8mm x 0.6mm) of a piezoelectric material, provided with silver electrodes. This structure forms an electro-mechanical resonator which has a resonance frequency (impedance minimum) at 36kHz, and an antiresonance frequency (impedance maximum) at 39kHz. The transducer can be operated efficiently at either of these two frequencies.

ELECTRICAL DATA

Resonance frequency	36	kHz
Impedance at resonance (measuring voltage 3V)	300	Ω
Sensitivity as receiver at resonance ($R_i = 10\Omega$)	1	$\mu A/\mu bar$
Antiresonance frequency	39	kHz
Impedance at antiresonance (measuring voltage 3V)	15	k Ω
Sensitivity as receiver at antiresonance ($R_i = 1M\Omega$)	4	mV/ μbar
Nominal capacitance (at 1kHz)	2200	pF

TRANSDUCERS

PRICE	CODE
£6.40	A267

TAA960 IC

PRICE	CODE
£2.01	A268

IC SOCKET

0.35	A269
------	------

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

JOSTY electronic kits to BUILD

ALL KITS ARE COMPLETE WITH COMPREHENSIVE EASY TO FOLLOW INSTRUCTIONS
AND COVERED BY FULL GUARANTEE



A

PRICE	CODE	DESCRIPTION
7.00	AF20	Mono Transistor Amplifier
4.10	AF25	Mixer
4.00	AF30	Mono Transistor Pre-amplifier
3.05	AF35	Emitter Amplifier
6.10	AF80	Small 0.5W Amplifier for Microphone
3.60	AF305	Intercom
9.45	AF310/2	Mono Amplifier (for Stereo use two)
2.26	AM160	Multivibrator
9.00	AM1302	Transistor Tester
6.70	AM191	Vu-Meter
7.40	AM192	Stereo Balance Meter
10.55	ALF380	Quadrophonic Device
11.65	AT60	Psychedelic Light Control Single Channel
17.85	AT65	Psychedelic Light Control 3 Channel
12.10	AT25	Window Wiper Robot
7.25	AT30	Photo Cell Switching Unit
5.60	AT50	400w Triac Light Dimmer Speed Control
7.30	AT56	2.200w Triac Light Dimmer Speed Control
4.05	AT 5	Automatic Light Control
10.10	AGU330	Tremelo Unit for Guitars etc.
4.15	AHF61	Diode Detector
4.00	AHF65	Frequency Modulated FM Transmitter
4.55	AHF75	FM Transistor Receiver
20.40	AHF310	FM Tuner Unit
32.95	AHF325	De-Luxe FM Tuner Unit
13.20	AHF330	Stereo Decoder for use with AHF310 or AHF325
28.70	AGP310	Stereo Pre-amp to use with 2, AF310
10.85	AGP312	Basis Circuit Board
5.75	AGP304	Basis Circuit Board
7.55	AHF380	Aerial Amplifier for LW to VHF
2.60	AHF395	Broadband Aerial Amplifier
6.75	ANT10	Power Supply 100m/a 9V Stabilised 12V Unstabilised
14.25	ANT300	Professional Stabilised Power Supply
6.10	ANT310	Power Pack 2 x 15 volt 2A

PRICE	CODE	DESCRIPTION
6.75	ANT330	Power Pack AF310/AGP304
13.00	ANT315	Power Supply 240Vac to 4.5-15V dc. 500m/a
1.65	AE 1	Output Stage 100mW
1.40	AE 2	Pre-amplifier
2.20	AE 3	Diode-receiver
1.35	AE 4	Flasher
1.25	AE 5	A stable Multivibrator
1.20	AE 6	Monostable Multivibrator
1.15	AE 7	RC Generator
1.15	AE 8	Bassfilter
1.15	AE 9	Treblefilter
1.15	AE10	CCIR-filter

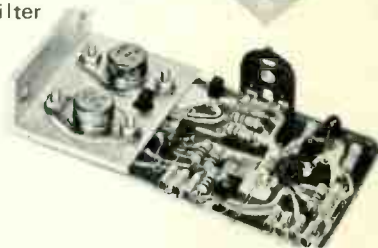
PRICE	CODE	MODULE BOX
7.70	AB1150	S.C.
9.50	AB1151	Blk
8.80	AB12520	S.C.
10.85	AN1251	Blk
10.85	AB1350	S.C.
13.00	AB1351	Blk
12.30	AB1500	S.C.
14.55	AB1501	Blk
11.35	AB2200	S.C.
13.45	AB2201	Blk
13.30	AB2300	S.C.
15.60	AB2301	Blk.
15.05	AB2400	S.C.
17.45	AB2401	Blk
18.50	AB2500	S.C.
20.95	AB2501	Blk

(Post and packing GB 'A' per Kit)

AMATEUR ELECTRONICS by Josty Kit

The professional book for the amateur — covers the subject from basic principals to advanced electronic techniques. Complete with circuit board for AE1 to AE10—see above.

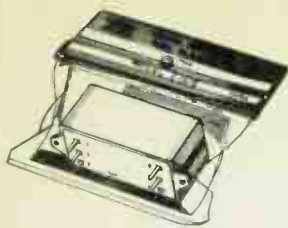
PRICE	CODE
£3.30	AA12



WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

PREAMPLIFIERS AND MODULES



ENCAPSULATED
MODULES



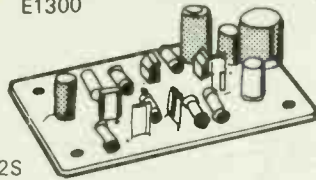
E1300



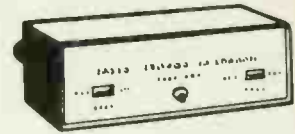
PRE402



EA10



EQ2S



A114

A

TYPE NO. Alternatives in brackets	SIZE	POWER SUPPLY	APPLICATION, DESCRIPTION	RESPONSE	PRICE	CODE
E1300	70 x 45 x 29mm	Internal 9 volt	47dB Gain Mono Preamp. for cartridges, Tape Heads, Microphones with low output	30-20KHZ	4.05	A126
EA10 (E1300) (FF2)	89 x 64 x 26 mm	Internal 9 volt	Low noise stereo preamp. RIAA, 34dB Gain. 50K Input, 3-30mV, 50dB Separation, cased.	30-20 KHZ	6.40	A127
FF3	85 x 25 x 60mm	Internal 9 volt	Tape head stereo preamp, NARTB. Input 3mV, cased.	20-20 KHZ	6.40	A128
PRE402 (3402)	95 x 35 x 65 mm	Mains 240V AC	5-20mV magnetic cartridges RIAA Stereo Preamp. Cased.	20-22 KHZ	8.45	A129
A114	15 x 5½ x 9½ cm	200-240V AC	RIAA cartridge and NARTB tape head inputs. Stereo		8.70	A130
Impverta	125 x 40 x 40mm	9 volt DC	Low Impedance Mic. matching.		3.70	A132
EQ25	60 x 35 x 20 mm	8-10V DC	Phono 5mV, Tape 5mV, Flat 3mV. Chassis Unit, single channel		2.45	A133
MA1	82 x 52 x 26 mm	Internal 9 volt	Cased Mono Preamp.		3.15	A134

CARRIAGE/PACKING (UK) *B* ANY MODEL

ENCAPSULATED MODULES 9 VOLT MAX DC OPERATION (CARRIAGE/PACKING 15p per 1 to 3)

		PRICE	CODE		PRICE	CODE
E 1311 (BM1)	Mag. Cart. Preamp. RIAA	1.90	A139	E 1317	Wireless Oscillator	1.50 A145
E 1312 (BM2)	Tape head preamp. NARTB	1.90	A140	E 1318 (BM31)	Dual Lamp Flasher	1.30 A146
E 1313 (BM3)	Microphone preamp	1.90	A141	E 1320	Metronome	1.30 A147
*E 1314 (BM4)	300mW Amplifier for above 3	1.90	A142	*E 1321 (BM61)	Rain Alarm	1.65 A148
E 1315	Organ Tone Osc.	1.30	A143	*E 1322 (BM60)	Burgular Alarm	1.65 A149
*E 1316 (BM41)	Morse Code Osc.	1.30	A144	*E 1323	Fire Alarm	1.65 A150

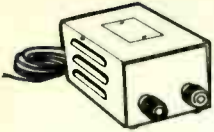
(Approx. size 65 x 30 x 25 mm)

* EXTERNAL 8 OHM SPEAKER REQUIRED

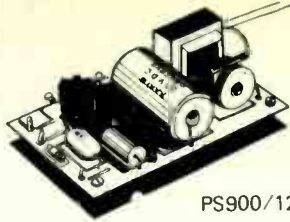
WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

POWER SUPPLIES

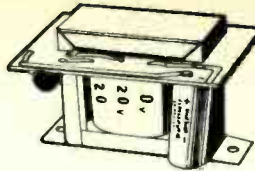
A



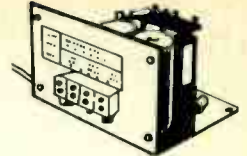
P500
LA6T



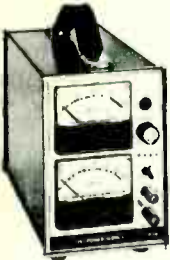
PS900/1200



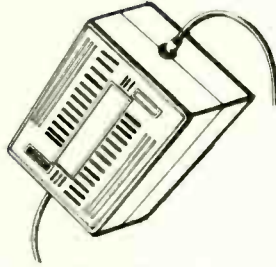
P1080, P15



PS20



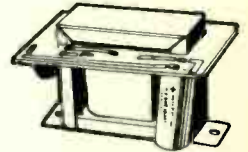
RP 218



DE, DC



MU24/40



P11



RP164



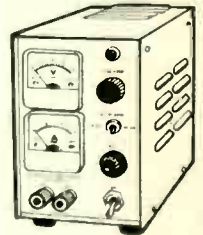
RP124



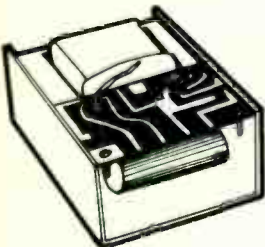
P12(P112)



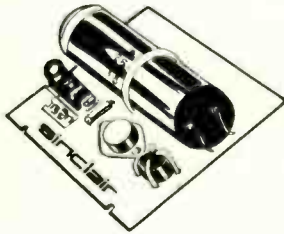
SE101A



RP40, RP24, RP216



P25



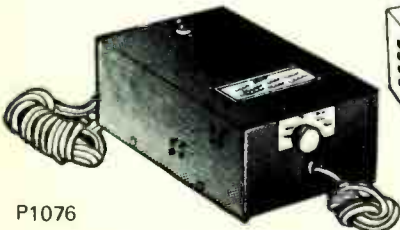
P28



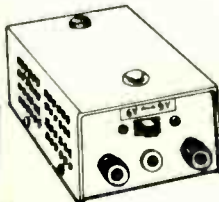
PP1



6/7½/9 volt



P1076



PS.69/PS679



SE800A



P 6200

(NOTE: ILLUSTRATIONS NOT TO SCALE)

LOW VOLTAGE POWER SUPPLIES FOR EVERY APPLICATION

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

LOW VOLTAGE FIXED, SWITCHED & VARIABLE POWER SUPPLIES FOR AMATEUR & PROFESSIONAL APPLICATIONS

TYPE NO.	SIZE			Stabilised (S)	Cased (C) Chassis (CH)	DC OUTPUT (NL - NO LOAD)	FUSED (M) Mains (DC) Output	APPLICATION & NOTES (Application is other than general purpose).	PRICE	CODE
	L mm	W mm	H mm							
LA9P (P1090)	61	21	21	-	(C)	18v NL 9v 50mA	-	Eliminator for small radios, etc.	2.95	A155
100/6 RTC	83	70	54	-	(C)	6v 100mA	-	Radios etc.	2.00	A156
100/9 RTC	83	70	54	-	(C)	9v 100mA	-	Radios etc.	3.00	A157
250/7.5 RTC	83	70	54	-	(C)	7½v 150mA	-	Tape Recorders. (with 5 pin DIN Connector)	2.70	A158
1/12 RTC	76	51	57	-	(C)	12 volt 1 Amp	-	Tape Recorders, car radios etc.	3.50	A159
LA6T	120	60	50	-	(C)	6v 200mA, 6v 600mA	-	Radios, Tape Recorders etc.	4.55	A160
DE	127	102	76	(S)	(C)	3.6v 300mA, 9.6v 250mA	-	No Load. 30 volt each	3.65	A161
DC	127	102	76	(S)	(C)	30v NL 3.6v 30v NL 9.6v	-	For charging 3.6v and 9.6v Deac or rechargeable batteries up to 500mA	2.45	A162
P1076 (SE256)	127	51	32	-	(C)	3, 4½, 6, 7½, 9, 12v Up to 500mA	-	Tape recorders, Intercomms, Radios etc.	4.55	A163
PS69	130	50	74	-	(C)	6 or 9v Up to 400mA	-	Tape recorders, etc.	5.35	A164
PS679	130	50	74	-	(C)	6, 7½ or 9v Up to 400mA	-	Tape recorders, radios, etc.	6.20	A165
P500(LA10S)	120	60	50	-	(C)	9v 200mA, 7v 500mA	-	For 1 or 2 '304', '104', '2004' Amplifiers	4.55	A166
PS20	114	89	71	-	(CH)	20/22v NL 16volt 1 amp	(M) (DC)	For 1 or 2 'PA7' Amplifiers	4.30	A167
P6200	40	30	60	-	(C)	6 & 9 volt 300mA	(DC)	4-way O/P Adaptor	2.95	A168
470C	102	64	38	-	(C)	6/7½/9 volt 300mA	(DC)	4-way O/P Adaptor	2.65	A169
PZ5				-	(CH)	30v Nominal	External	For 1 or 2 Z4C Amps	5.40	A170
PZ6				(S)	(CH)	35v Nominal	(DC)	For 1 or 2 Z4C Amps	8.65	A171
PZ8				(S)	(CH)	45v Nominal	External	For 1 or 2 Z60 Amps (Transformer extra)	8.65	A172
PZ20				-	(CH)		External	For IC20 Stereo Amp	5.90	A173
P11	85	56	53	-	(CH)	24v 500mA (30v NL)	-	For 608 Amplifier	3.60	A174
P12(P112)	150	90	65	(S)	(C)	7v NL 4.5v 1A, 6v 0.4A 10v NL 7.5v 1A, 9v 0.4A 14v NL 10v 1A, 11½v 0.4A	-	Suitable for Amplifiers 2004, 104, 304 E1208	10.90	A175
P15	85	56	53	-	(CH)	28v 600mA, 26v 1 amp, 35v NL	-	For 410 Amplifier	3.55	A176
P1080				-	(CH)	NL 18v, 12v, 1 amp.	-	For E1208 or similar	4.45	A177
P1081				-	(CH)	NL 55v, 45v 0.9 amp	-	For E1206 or similar	8.45	A178
RP124	185	105	85	(S)	(C)	Variable 0-24v 1 amp.	-	Dual Scale voltage/current meter	25.40	A179
RP24	200	100	155	(S)	(C)	6-12v +3v (Adj) 0-2 amp.	(M) (DC)	Variable - Dual meters. Overload protection	23.20	A180
RP40(PS200)	222	105	156	(S)	(C)	5-20v 0-2 amp	(M) (DC)	Overload protection. Dual meters. 1% regulation	28.90	A181
SE101A	175	115	65	(S)	(C)	3, 6, 9, 12v 1 amp max.	(M) (DC)	Switched output 1% regulation	13.80	A182
SE800A	191	89	76	(S)	(C)	1-15 volt 0-0.5A Regulation 40mV	(DC)	Variable single switched meter	18.90	A183
RP164	160	96	60	(S)	(C)	6, 7½, 9, 12v 1 amp max.	(M)	Switched output	15.55	A184
RP216	200	100	155	(S)	(C)	0-15v (Adj) 0-2 amp.	(M) (DC)	Variable. Dual meters.	36.20	A185
RP218	310	180	110	(S)	(C)	0-18v (Adj) 0-1 amp.	(M) (DC)	Variable. Dual meters	38.85	A186
PP1	80	50	50	(S)	(C)	6, 7.5, 9v 1 amp 12v DC input	(DC)	Power regulator for car use	5.65	A187
PP2	100	50	82	-	(C)	3, 4.5, 6, 7.5, 9, 12v 500mA	-	Switched output	7.30	A188
HC244R	118	77	55	(S)	(C)	3, 6, 7.5, 9v 400mA	-	Switched output & polarity	5.95	A189

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

CARRIAGE/PACKING 'B'

TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

EDUCATIONAL KITS

A



RADIONIC X20 ELECTRICITY KIT

20 interesting circuits in basic electricity. Simple assemblies to suit a beginner including lighting circuits, dimmer switch, two-way switching, bar magnet and electroplating.
20 Circuits

	PRICE	CODE
Carr/Pack 'B'	£6.15	A191

X40 RADIONIC AND ELECTRONIC KIT

40 Electronic circuits including four types of transistor radio, burglar alarms, morse code buzzer, electronic violin and metronome.
40 Circuits

	PRICE	CODE
Carr/Pack 'B'	£13.75	A192

RADIONIC X40A AMPLIFIER ADD-ON KIT

Self-container circuits incorporating volume and tone controls, giving good quality sound reproduction to radios built with the X40 kit. Can also be used for record player and to build a baby alarm and an intercom system.

	PRICE	CODE
Carr/Pack 'B'	£11.25	A193

TURNER 10 IN 1

10 interesting projects for the beginner including radios and amplifiers, morse buzzers, etc. Incorporated an "IC". Supplied complete with Project Book in Presentation Box.

	PRICE	CODE
Carr/Pack 'B'	£7.35	A194

TURNER 50 IN 1

The next logical step from the 10 in 1 kit, 50 projects from a simple multimeter to a radio. All to an interesting nominal. No soldering required.

	PRICE	CODE
Carr/Pack 'B'	£16.70	A195

TURNER 150 IN 1

The advanced Project Kit makes anything from light operated switches to burglar alarms. 150 fascinating projects with mount in presentation wooden box.

	PRICE	CODE
Carr/Pack 'B'	£25.55	A196

DENSHI BOARD SR-2A

Build any of 30 projects including 2-TR reflex radio receiver, 2-TR radio receiver with AF amplifier, 2-TR radio receiver with transistor detector, Morse Code trainer, wireless mike, wireless Morse Code trainer, phono amplifier, burglar alarm, and signal tracer.

	PRICE	CODE
Carr/Pack 'B'	£8.30	A197

DENSHI BOARD SR-3A

Build any of 100 projects including 3-TR reflex radio receiver, 3-TR radio receiver with RF amplifier, 3-TR amplifier for speaker/mike, Morse Code trainer, 2-TR electronic organ, electronic metronome, etc. Supplied with booklet.

	PRICE	CODE
Carr/Pack 'B'	£16.15	A198

DENSHI BLOCK ST 45

Forty Five different wonderful experiments including the following:

3-Transistor radios of various types.
Signal Tracers, Morse Code Trainer, Warning Devices, Electronic Birds, Sleeping Aids, Metronome, Radio Transmitters, Amplifiers, Continuity Testers, Ferrite (Metal) Detector, etc., etc., and all experiments in ST 25 kit, 80 page manual.

	PRICE	CODE
Carr/Pack 'B'	£11.35	A199

DENSHI BLOCK ST 100

One Hundred different exciting working projects including the following:

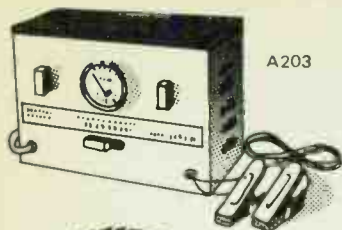
4-Transistor radios of various types.
Electronic Birds, Sleeping Aids, Gun, Metronome, Siren, Time Buzzer, Battery Checker, Timer, Water Level Indicators, Photo-electric 'phone, Morse Code Trainer, Roulette, Microphones Radio Transmitters, Amplifiers, Directional Radio Transmitter, Continuity Tester, Ferrite (Metal) Detector, Computer Circuits, etc., etc., and all experiments in ST 45 and ST 25 kits, 160 page manual.

	PRICE	CODE
Carr/Pack 'B'	£14.25	A200

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V. A. T.

MOBILE ACCESSORIES



A203



A211



A214



A213



A205



A206



A212



A215

SIRAN B200 BATTERY CHARGER (A203)

An attractive two tone finished instrument in a rustproof cabinet. Trickle and full 4 amp for either 6 or 12 volt batteries. Fitted with heavy duty 25 amp Battery clips. 200-240 V AC mains only
Size 177 x 70 mm x 152mm

PRICE	CODE	Carr/
£5.25	A203	Pack 'B'

SIRAN B210 BATTERY CHARGER (A204)

A heavy duty 4 amp battery charger designed for free standing or wall mounting. 6 or 12 volts. Finished in attractive stove enamelled case. Fully protected by fuses. 200-240 V AC mains only
Size: 190 x 140 x 83mm.

PRICE	CODE	Carr/
£4.60	A204	Pack 'B'

CAR AERIALS

FOUR BASIC TYPES COVER EVERY REQUIREMENT

Three sections in stainless steel. Closed 16½". Extended 43". Co-Axial lead 4'. Diameter of mounting hole 7/8". Completely screened. Can be fitted from on top of wing.
TYPE A

PRICE	CODE
£1.50	A205

Four sections in stainless steel. Closed 1½", extended 35". Co-Axial Lead 4'. Diameter of mounting hole 7/8". Length of tube below wing 10½". Unique lock requiring special key ring for release. Completely tamper proof.
TYPE B

PRICE	CODE
£1.87	A206

Four sections in stainless steel. Closed 1½", extended 39". Co-Axial Lead 4'. Length of tube below wing 15". Diam. 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.
TYPE C

PRICE	CODE
£10.00	A207

Five section Electronic and may be wired to raise, lower with the car radio.
TYPE D

PRICE	CODE
£12.50	A208

Note: Some slight differences in size and appearance may apply due to stock variations.

CARRIAGE/PACKING ANY TYPE 'A'

CAR AERIAL EXTENSION LEADS

2.25 METRES
3 METRES

PRICE	CODE	Carr/
75p	A209	
£1.10	A210	Pack 'A'

SOLID STATE TACHOMETER (A211)

Functionally styled for under or over dashboard installation this electronic tachometer fits all 4-cycle, 4-cylinder or 2-cycle, 2-cylinder 12V vehicles. Negative or positive earth. Calibrated white on black 0-8,000 rpm in 100 rpm divisions together with setable 'danger' line, simple installation - 2 screws, 4 wires. 80mm diameter dial. 50mm deep. On adjustable angle bracket. Sealed black crackle finish.
A 211

PRICE	CODE	Carr/
£9.65	A211	Pack 'A'

'POP-OUT' AUTO CIGARETTE LIGHTER (A212)

Designed for simple installation into cars, vans, motor boats of 12 volts, this neat accessory fits onto any instrument panel suitably drilled. Automatically 'pops out' when hot. Receiving socket of this lighter can also be used as power socket for other car battery operated equipment. Supplied with full instructions and connecting lead.
A 212

PRICE	CODE	Carr/
£1.20	A212	Pack 'A'

AUTO CAR LOCK (A213)

Provides a very simple method of preventing a vehicle from being started or stolen by 'unauthorised persons'. By incorporating the Auto Car Lock into the ignition circuit (or in any other application which requires circuit security), the ignition cannot be used or by-passed unless the correct multifaced key is inserted into the three position tumbler lock. Designed for easy mounting in small disguised locations, and supplied complete with heavy duty lead, key and installation and operation instructions. 30 mm dia. x 37mm deep.
A 213

PRICE	CODE	Carr/
£3.00	A213	Pack 'A'

CB POWER SUPPLIES (A214)

SOLID STATE DC/DC ADAPTER with Universal Plug

To operate your cassette recorder, transistor radio and other battery-powered equipment direct from your car or boat lighter socket. Universal plug with reversible poles (+ → -) and 3 types of plugs will fit most models.

	PRICE	CODE	Carr/
CB630 6V	£2.45	A214	Pack
CB730 7.5V			
CB930 9V			

E1052 SPEAKER FADER (A215)

all

E1055 STEREO FADER (A216)

items

FF21 QUADROPHONIC ADAPTOR

'A'

5 watts RMS per channel. Input 8Ω Output 8Ω

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

New from Sinclair

Oxford (Mains/battery calculators)

The Oxford 100 Four Function Portable Calculator
The classic 8-digit, 4-function calculator—made a little special by its unusually powerful constant. The Oxford 100 tackles most take-it-as-it-comes calculations.

It's a first-class calculator for use at home, at school, or abroad on holiday, as well as at work.

It's robust and simple—but not simple-minded. Unlike most 4-function machines, it can handle big numbers without overloading, and its constant makes light work of repetitive or complex calculations.

DISPLAY 8 digits; floating decimal point; unwanted zeros suppressed. Angled and enlarged for easy reading on a desk.

FOUR FUNCTIONS Adds, subtracts, multiplies, divides. **ALGEBRAIC LOGIC** Works in a common-sense way. You enter $10-6=$, for example, and not $-10+6=$ or $10\pm 6=$.

K CONSTANT Powerful constant on all four functions acts as limited memory.

CE KEY Clears incorrect entry—number or operator. Invaluable if you make a mistake in a calculation.



OXFORD 100

OXFORD 200

OXFORD 300

MAINS/BATTERY OPTION Operates for weeks on readily-available low-cost 9V battery (supplied with calculator); or indefinitely on mains power using optional Sinclair mains adaptor.

EASY TO OPERATE Rubber feet and click-action keys encourage accurate, one-hand desk use.

SIZE 6" x 2 $\frac{1}{4}$ " x 1 $\frac{1}{4}$ "

WEIGHT without battery: 5 oz.

PRICE	CODE
£11.50	A221

The Oxford 200 Five Function Portable Calculator with Memory

The Oxford 200 has an automatic % key to simplify percentage calculations.

It also has a memory—and a memory that's very simple to operate. The M key alerts the memory—and thereafter the normal function keys tell it what to do. A memory simplifies complex mathematical problems, and is extremely helpful in handling itemised invoices, statements, and other calculations where a series of intermediate results has to be added or subtracted to produce a final total.

It makes the Oxford 200 an ideal calculator for the businessman or the advanced student.

DISPLAY 8 digits; floating decimal point; unwanted zeros suppressed. Angled and enlarged for easy reading on a desk.

FIVE FUNCTIONS Adds, subtracts, multiplies, divides, plus automatic % key.

ALGEBRAIC LOGIC Enter calculations exactly as written.

AUTOMATIC CONSTANT Operates on all-four arithmetic functions.

MEMORY Full 5-function memory facility adds display to memory, subtracts display from memory, exchanges memory and display, recalls memory, and clears memory.

MAINS/BATTERY OPTION Operates for weeks on readily-available low-cost 9V battery (supplied with calculator); or indefinitely on mains power using optional mains adaptor.

EASY TO OPERATE Rubber feet and click-action keys encourage accurate one-hand desk use.

SIZE 6" x 2 $\frac{1}{4}$ " x 1 $\frac{1}{4}$ "

WEIGHT without battery: 5 oz.

PRICE	CODE
£16.95	A222

The Oxford 300 Advanced scientific portable Calculator

The Oxford 300 is special. It handles all the normal arithmetical calculations.

It has a constant and a full five-function memory. But it also offers a range of scientific and mathematical functions—and you select floating decimal or scientific notation for both number-entry and results.

There are very few true scientific mains/battery calculators—and none of the others approaches the Oxford 300 for value.

Basic format (size, weight, number of keys, number of digits, battery/mains option) as Oxford 100 and 200.

FUNCTIONS SUMMARY Four arithmetic functions.

Logs base e and e^x.

Sine and arcsine) operating
Cosine and arccosine) on degrees
Tangent and arctangent) or radians.

$$\pi, \sqrt{x}, \frac{1}{x}$$

FEATURES Automatic constant on arithmetic functions. Full five-function memory facility adds display to memory, subtracts display from memory, exchanges memory and display, recalls memory, and clears memory. Algebraic logic.

Scientific and normal notation—numbers can be entered in floating decimal point format or scientific notation.

Results are displayed in normal notation within the range 0.001 to 99,999,999. Outside this range the calculator automatically switches to scientific notation.

Degrees/radians selection switch.

PRICE	CODE
£24.95	A223

The Sinclair Oxford range

They all have a lot in common. Big, easy-to-read keys. Big, easy-to-read displays. A practical over-all size. Non-slip feet. And a mains/battery option.

KEYBOARD For use on a desk, a calculator must be comfortable to use with one hand. That means broad, click-action keys; a commonsense layout; and no see-at-a-glance identification. The Oxford portables have non-dazzle, colour-coded keys in an angled black keyboard. Nothing hit-or-miss about them.

DISPLAY 8 digits, of course. Anything less seriously restricts the scope and accuracy of many calculations. Big digits, presented at exactly the right angle for instant desk-top viewing, and shielded by a violet screen to increase clarity.

MAINS/BATTERY OPTION There isn't a battery calculator designed to work all day, every day. Only mains electricity can give you this. So the Oxfords offer you the best of both worlds. They'll give you weeks of life from a low-cost 9-volt battery—or you can plug them into the mains with the Sinclair mains adaptor (optional extra).

PRICE	CODE
£2.95	A224

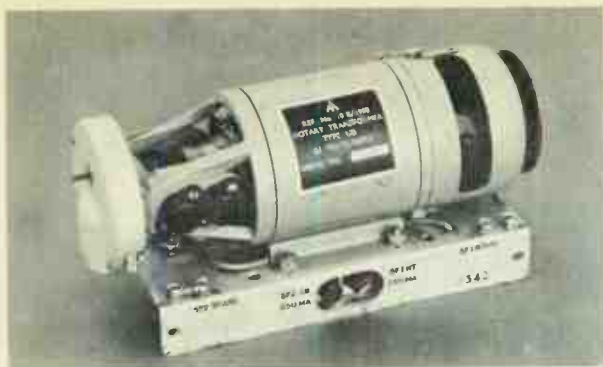


SEE PAGE A for further selection of pocket size calculator kits.

Carr/Pack paid on all items

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACK. CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V. A. T.

A21



TYPE 106 DYNAMOTOR/GEARED DRIVE

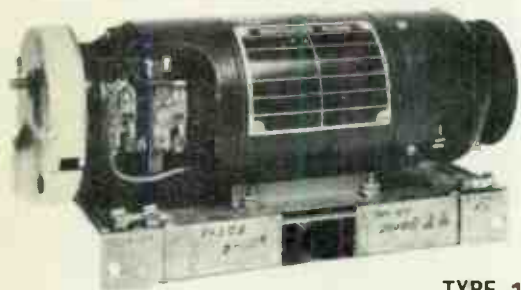
Ministry ref. 10K/1990. Rotary transformer or dynamotor. Input 24/28 volts DC. Output 250 volt and 50 volt DC also fitted gear drive for operating tuning capacitors, aerial relays etc. etc. Fan cooled. Can be converted for AC mains input operation. Overall size: 215 mm length, 70 mm diameter, 107 mm height.

Ex Brand New Equipment.

PRICE	CODE
£1.25	A232

Carr/
Pack 'B'

A

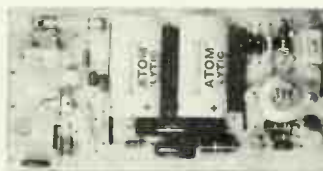


TYPE 118

As above, but later model.
Ex Brand New Equipment.

PRICE	CODE
£1.65	A233

Carr/
Pack 'B'



COMPUTOR STABILISED POWER SUPPLY

Brand new multi-transistor panels with multi outputs. Supplied complete with circuit.

PRICE	CODE
£1.35	A240

Carr
Pack 'A'

VIBRATORS

For replacement, original equipment and experimentation.



2V 7 pin synchronous
12V 4 pin non sync.
12V 7 pin synchronous

PRICE	CODE
37p	A241
27p	A242
65p	A243

Quantities available at special prices

CARR/PACK 'A'



HALOGEN QUENCHED GAMMA COUNTER TUBE CV2247 (G5H)

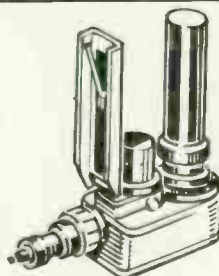
Operating voltage 370 volts average
Plateau length 100 volts minimum
Plateau slope 3% per 100 volts
Overall size 125 x 25 mm
Background 40 per min.
Electrode material Stainless Iron
Anode length 5 cms.

Fitted with rubber jacket.

Fitted with rubber jacket.

PRICE	CODE
£1 35	A234

Carr/
Pack 'A'



DETECTOR PROBE

Fitted with the above counter tube CV2247 (G5H), plus voltage stabiliser CV2255 (Z801U). Finished in white enamel. Supplied complete with cables and connectors. Ideal for your own detection circuits etc.

BRAND NEW

Carr/ Pack 'B'

PRICE	CODE
£2.45	A244

Bargain Offers in Computer Panels

AVAILABLE AS 3 GROUPS C/P A

- GROUP A Contain components only – some with diodes
- GROUP B Contain components and transistors – some with diodes.
- GROUP C Contain some power transistors plus components.

PRICE	CODE
27p	A235
37p	A236
55p	A237

Carr/Pack 'A'

BUZZERS TYPE A 4½ – 12 v OPERATING

55 ohms Coil
Single hole mounting

PRICE	CODE
40p	A238

CARR/
PACK 'A'



TYPE B 1½ – 12 v OPERATING Adjustable pitch

CARR/PACK 'A'

PRICE	CODE
40p	A239

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

the **'TEXAN'** STEREO AMPLIFIER

*Designed by Richard Mann**

FEATURED BY
PRACTICAL WIRELESS MAGAZINE,
MAY TO AUGUST, 1972

LEAFLET 21/11 PRICE 30p

A



★ **HENRY'S WORLD FAMOUS
TEXAN STEREO AMPLIFIER KIT**

PRICE	CODE
£38.75	A248
£46.85	A249

20+20 WATTS OUTPUT
COMPLETE KIT OF PARTS
PRICE A248 £38.75
CARR/PACK 'C'

ALSO AVAILABLE BUILT
AND TESTED PRICE A249 £46.85
CARR/PACK 'C'

- ★ 20 WATTS OUTPUT PER CHANNEL
- ★ FULLY INTEGRATED STEREO
PRE AMPLIFIER AND POWER AMPLIFIER
- ★ 6 INTEGRATED CIRCUITS
10 TRANSISTORS
6 RECTIFIERS & ZENER DIODES
- ★ STABILISED AND PROTECTED CIRCUITRY
- ★ FIBRE GLASS PRINTED CIRCUIT
- ★ GARDNERS LOW FIELD —
LOW LINE TRANSFORMER
- ★ SLIM DESIGN — CHASSIS
OVERALL SIZE 368 x 152 x 51 mm
- ★ ALL FACILITIES AND CONTROLS
- ★ PROFESSIONAL APPEARANCE AND
PERFORMANCE

...True Hi Fi at a remarkably low cost. It has all the features you could want—20 rms per channel—less than 0.1 per cent distortion at 1kHz—scratch and rumble filters—and so much more... and it couldn't be easier to build. Six I.C.'s take care of the earlier stages while the printed circuit board, metalwork and the special low field mains transformer will all be laid on especially for this project. THE TEXAN has a beautiful appearance and beautiful performance and has been designed by Richard Mann of Texas Instruments.

UNBEATABLE IN EVERY WAY!

SEE PAGE A 24 FOR TUNER TO MATCH.

- PACK 1 72 Resistors
- PACK 2 36 small capacitors and bead tantalums
- PACK 3 2 x 3500µ50V 2 x 1000µ 25V
- PACK 4 20mm Fuse Holder 3-5 pin Din sockets
1 amp A/S 20mm Fuse 1-Texan stereo jack socket
2-Twin 1¼" Fuse Panels 1-Texan Mains Neon
4-2 amp 1¼" Fuses 1-Tub Silicon Grease
2-Din speaker sockets 5-Knobs (H103)
- PACK 5 1-Texan on/off switch
1-2p 2 way slide switch
1-2pole push-switch } Fitted Knobs
2-4 " " " }
- PACK 6 4 pole 3 way selector TEXAN
2-100K Lin. Ganged PC controls 2dB
1-10K Log. " " " "
1-5K Lin. control PC
- PACK 7 4-SN72748P IC's 2-BC212 Transistors
2-SN72741P IC's 2-IS2150A Zeners
6-IC sockets for above 2-TIP42A } with micas
4-IN4002 Rectifiers 2-TIP41A } and washers
4-BC182 Transistors
- PACK 8 Texan Transformer
- PACK 9 Texan Fibre Glass PC Panel
- PACK 10 Complete chassis work, hardware and brackets.
- PACK 11 Preformed cable/leads
- PACK 12 Handbook reprint
- PACK 13 Teak Cabinet

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V. A. T.

THE

HENELEC STEREO FM TUNER

DESIGNED BY S. NEAGLE and D. R. HUNT

A



- ★ VARICAP TUNING
- ★ 9 TRANSISTORS, IC, 9 DIODES
- ★ PHASE LOCK LOOP DECODER
- ★ BUILT IN AFC
- ★ 2.5 μ V AERIAL SENSITIVITY
- ★ FIBREGLASS PC
- ★ STEREO SEPARATION 40 dB
- ★ MAINS OPERATION
- ★ 500 mV OUTPUT (ADJUSTABLE)
- ★ TEAK CABINET
- ★ TUNING RANGE 87 - 102 MHz
- ★ 20 Hz - 22 KHz - 3dB (Mono) 20 Hz - 15 KHz - 3dB (Stereo, Upper Limit set at Transmitter)

Optional Extras: AFC SWITCH OFF, STEREO MUTING

THE CIRCUIT MAY ALSO BE ALTERED TO COVER THE AMATEUR AND AIRCRAFT BANDS

TOTAL COST to BUILD A252

PRICE	CODE
£26.25	A252
£31.15	A253

ALSO AVAILABLE BUILT AT **A253** PACK/CARR 'B' ON BOTH ITEMS

Leaflet No.5 DESCRIPTION & CONSTRUCTION Price 30p Available on request.

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

DISCO & P.A. EQUIPMENT

CARRIAGE/PACKING ON ALL MICROPHONES 'B'

microphones

CO 96 Capacitor microphone

The CO 96 has been designed to overcome the problems normally incurred in buying a capacitor microphone. Namely cost and size. This has been achieved by using a capacitor insert with a built-in preamplifier, powered by a single dry cell.

The CO 96, cardioid, is supplied with a detachable windshield and 6 metres of cable.

CO96 Impedance: 600 ohms. Response: 30-16,000 Hz. Sensitivity: -70dBV (310 uV). Battery type: HP7

PRICE	CODE
£20.25	B001



UD 50HL/UD 130

Cardioid dual impedance microphone

An excellent microphone for all PA applications. Cardioid response eliminates unwanted pick-up from sides or rear, while dual impedance makes this model totally compatible with existing systems. A heavy duty wire mesh screen reduces boom and wind noises. Supplied with 6 metres detachable cable and plug.

Impedance: Dual-600 ohms or 50 Kohms.

Response: 40-14,000 Hz. Sensitivity: @ 50 K ohms -54 dBV (2.8 mV) @ 600 ohms -74 dBV (280 uV)

PRICE	CODE
£12.60	B002



DM 18HL Dual impedance microphone

A sensible microphone at a sensible price. The DM18HL has been built to Eagle's high technical and aesthetic standards, and is supplied complete with a matching desk stand, floor stand adaptor and cable. The DM18HL will give many years of trouble free service.

Impedance: Dual 600 ohms or 50 K ohms.

Response: 60-12,000 Hz.

Average Output: 2.2 mV

PRICE	CODE
£13.50	B003



DM 94 Omni-directional dynamic mic.

A slim, good looking microphone specially constructed for indoor or outdoor use. The DM 94 is supplied complete with a detachable windshield for use in gusty conditions where excess noise could become a problem. Conveniently fitted with an on/off switch and 1.5 metres of low noise cable.

Impedance: 50 k ohms.

Response: 80-10,000 Hz.

Average Output: 2.6 mV.

PRICE	CODE
£11.25	B004



WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICES SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

PRO series microphones

Carr/Packing on all microphones 'B'

Omni-directional Electret Condensator Mic.

EM82 Low imp. 600 ohms EM82H High imp. 50k ohms

Uni-directional Electret Condensator Mic.

EM83 Low impedance 1,000 ohms

EM83H High impedance 50k ohms

All available at the same price. Please state type and impedance when ordering.

SPECIFICATIONS

Frequency Response : 40 18,000 Hz
Sensitivity: -65dB ± 3dB
Operating Voltage : 1.1 to 1.5 Volts
Consumption Current: 160µA
Continuous hours : 10,000 hours
Cable : 16.5 ft with phone plug
Dimensions : 0.87 x 6.38 in
Weight : 6.7 ounces
Accessories: : Built in talk switch, Mike holder, Lavalier, Wind screen, battery UM-3

PRICE	CODE
14.37	B009



PRO M10 Omni-directional professional capacitor microphone

Keeping to our policy of continuous research and development, we have carefully studied the needs of the professional and the studio user. Arriving directly from this research is our range of professional microphones. The PRO M10 is one of this range. A capacitor microphone with omni-directional pattern for you, the professional.



PRICE	CODE
39.37	B013

Connector: XLR 3-11C

Impedance: 600 ohms (floating) Response: 30-17,000 Hz.
Sensitivity: -70dB. Generating Element: Electret Capacitor.
Cable: 6 metres two conductor shielded. Battery Type: HP7.

DM73 Omni-directional dynamic microphone

By specially treating the diaphragm, thus countering the effects of humidity and temperature, the DM73 is able to fill the role of a robust general purpose microphone.

Supplied complete with a heavy duty desk stand, clip in floor stand adaptor and 6 metres of cable.

Impedance: 50 K ohms.
Response: 60-14,000 Hz.
Average Output: 2.2 mV



PRICE	CODE
10.50	B010

SPECIAL ORDER ONLY

PRO M20 Uni-directional professional capacitor microphone

The PRO M20 has been designed and built to the same standards as the PRO M10, and like this model uses the same concept of a selected capacitor element. The PRO M20 is acoustically controlled to give uni-directional polar response, and is supplied complete with holder and 6 metres of twin screened cable. Connector: XLR3-11C.



PRICE	CODE
36.00	B014

Impedance: 600 ohms floating.
Response: 30-17,000 Hz
Sensitivity: -60dB. Generating Element: Electret Capacitor.
Cable: 6 metres two conductor shielded. Battery Type: HP7.

DD 6 Dual impedance lavalier microphone

The DD 6 is a microphone for all purposes. Small enough to be used as a lavalier, it is supplied with a lavalier cord, yet sturdy enough to be used on a stand, it also has its own stand adaptor. For outdoor use a detachable windshield is included, and together with dual impedance make this a truly versatile microphone.

Impedance: Dual-600 ohms or 50 K ohms.
Response: 60-12,000 Hz
Sensitivity: -54 dBV (2.8 mV) @ 50 K ohms -74 dBV (280µV) @ 600 ohms



PRICE	CODE
12.60	B011

SPECIAL ORDER ONLY

PRO M25 Professional capacitor boom-arm microphone

Good looks and durability are the hall mark of the PRO M25 boom-arm microphone. Using a similar cardioid capsule to the PRO M20, this microphone has been built to stand the strains or normal studio use and yet look good enough for in-vision work. Supplied complete with 2 windshields and 6 metres of twin screened cable.

Impedance: 600 ohms (floating). Response: 20-18,000 Hz.
Sensitivity: -70 dBV. Cable: 6 metres two conductor shielded
Connector: XLR 3-11C Battery Type: HP7.



PRICE	CODE
42.00	B015

DD5 Paging microphone

One of the most advanced paging microphones available today. The DD5 utilises a sub-miniature electret capsule and operates on an omni-directional pattern at low impedance. It has, housed in the base, a push to talk switch which has spare contacts for switching amplifier paging relays.

DD5 Impedance: 600 ohms.
Response: 600-9,000 Hz. Sensitivity: -70 dB (310 µV). Battery Type: HP7.



PRICE	CODE
15.75	B012

PRO M5 Professional lavalier capacitor mic.

This highly sensitive mic. has been designed for the person with his hands tied. Ideal for studio or lecture use, the PRO M5 gives you freedom of movement. Weighing only 28 grams, it comes complete with tie clip and special jack plug, which houses the single dry cell used to power the FET capacitor capsule. Supplied with 5.8 metres of low noise cable.



PRICE	CODE
18.00	B016

Imp.: 600 ohms. Response: 50-13,000 Hz. Sensitivity: -65 dBV. Battery Type: HP7

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

Microphones

C/P ON ALL MICROPHONES '8'

UD 60S, UD 60R & UD 60G Uni-directional dynamic microphones

The UD 60 series are balanced line units intended for use where long microphone lines are required. Their uni-directional response ensures excellent performance in cases where feedback is a major problem.

To add visual appeal the UD 60 is available in silver, red or gold finish, each unit is supplied with stand holder and 6 metres of cable.

Impedance: 30 ohms balanced.
Response: 50–18,000 Hz.
Sensitivity: 75 dBV (200 μ V).
Cable length: 6 metres balanced low-noise.
Finish: 7D 60S Silver UD 60R Red, UD 60G Gold.

NEW



CODE B021

PRICE ON

APPLICATION

B021

MDF 611 Cardioid dynamic microphone

A stand mounting microphone suitable for studio, group or high quality PA work. The dual impedance facility enables the unit to be matched to most amplifiers. Complete with lead and carrying case.

Impedance: 600–50,000 ohms (dual).
Response: 100–10,000 Hz.
Sensitivity: 600 ohms –76 dB (260 μ V), 50,000 ohms –58 dB (2.8 mV).
Cable: 5 metres.

CODE B025

PRICE ON APPLICATION



MDF 619 Cardioid dynamic microphone

A dual impedance hand microphone with frequency response ideal for general voice applications. Wire mesh windshield prevents microphone 'boom' and 'pop'. Supplied complete with stand clip and lead.

Impedance: 600–50,000 ohms (dual). **Cable:** 5 metres.
Response: 200–10,000 Hz. **Average output:** 2.2 mV.



PRICE	CODE
£20.70	B022

DD7 Dual impedance uni-directional paging microphone

Having a uni-directional response the DD7 is ideal for use in situations having high background noise. The frequency response is specially tailored for speech reproduction and a simple internal connection changes the unit from 50 K ohms to 200 ohms impedance.

Impedance: Dual – 200 ohms or 50 K ohms

Response: 600–9,000 Hz.
Sensitivity: 54 dB (2.8 mV).



PRICE	CODE
£13.50	B026

B 1060 Omni-directional dynamic microphone

A good all purpose PA microphone, can be used with lavalier cord, on stand or hand held. Has detachable windscreen for outdoor use and sibilance problems.

An attractive dual impedance microphone at a low price. Comes complete with windscreen, lavalier cord, microphone holder and lead. **Cable length:** 2.3 metres.
Impedance: 600 ohms or 50 K ohms. **Response:** 80–13,000 Hz
Sensitivity: @ 50 K ohms -59 dB, @ 600 ohms -77 dB



PRICE	CODE
£8.40	B023

DF 1XL, DF 1XM and DF 1XH Omni-directional dynamic microphones

A miniature dynamic microphone with a variety of uses. Especially suited to public address applications. Can be hand-held or used with a desk stand, or lavalier cord, both of which are provided. Features an easily detachable platform-type desk stand leaving the microphone mount free for use with any floor stand.

Impedance: DF 1XL-50 ohms, DF 1XM-600 ohms, DF 1XH-50 K ohms. **Response:** 100–10,000 Hz.
Sensitivity: at 50 K ohms -57 dB (2.4 mV), 600 ohms 76 dB (210 μ V), 50 ohms 110 dB (200 μ V).



PRICE	CODE
£7.75	B027

B 1075 Cardioid dual impedance dynamic microphone

A uni-directional microphone which solves many feedback and background noise problems at low cost.

Complete with microphone holder and lead.
Impedance: 600 ohms or 50 K ohms. **Response:** 50–14,000 Hz.
Sensitivity: @ 50 K ohms -54 dB, @ 600 ohms -73 dB (210 μ V).
Cable length: 3 metres.

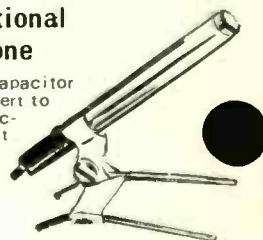


PRICE	CODE
£12.39	B024

B 1238 Omni-directional capacitor microphone

A smart, self-contained capacitor unit using an electret insert to gain the advantages associated with a capacitor unit but without a separate power supply. Battery fits into microphone body. Comes complete with windscreen and table stand.

Impedance: 600 ohms.
Response: 30–13,000 Hz.
Sensitivity: -74 dB (180 μ V).
Battery type: Ever Ready D23 or equivalent.

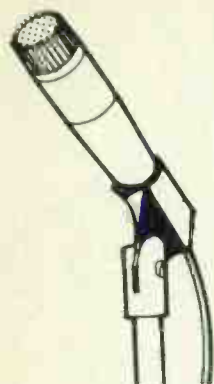


PRICE	CODE
£12.69	B028

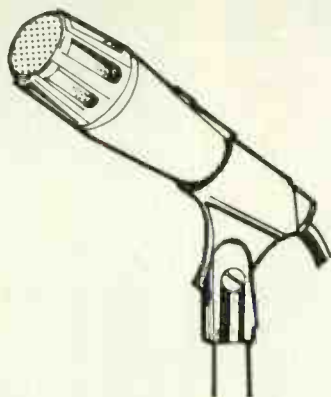
WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

SHURE Microphones

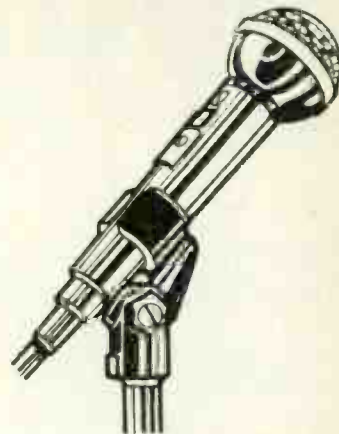
(CARR. PACK ALL MICROPHONES 'B')



model 545



model 515SA



model 533SA

UNIDIRECTIONAL DYNAMIC

MODELS 55S 55SW

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 55S

MODEL 55SW (with switch)

PRICE	C.O.D.
£40.80	B032
£41.25	B033

UNIDYNE II

MODELS 515SA: 515SB

The Unidyne B Series offers the advantages of cardioid performance at a price previously associated only with omni-directional microphones. Sturdy die-cast case, smooth shaped response, shockproof mounted dynamic cartridge, On Off switch with locking plate.

MODEL 515SA (High impedance)

MODEL 515SB (Low impedance)

UNIDYNE B

MODELS 565: 565S: 565SD

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 (swivel adaptor supplied). Model 565S includes an on/off switch in swivel base while Model 565SD incorporates an on/off switch in the body of the microphone and also features a Cannon-type connector. All three are dual-impedance microphones.

MODEL 565

MODEL 565S

MODEL 565SD

PRICE	C.O.D.
£40.25	B034
£48.75	B035
£48.75	B-16

UNISPHERE I

MODELS 548: 548S: 548SD

The premier models in the Unidyne range and the most sturdy microphones ever made. Particularly suitable for use in high quality sound systems. Model 548 for hand or stand use (swivel adaptor supplied). Model 548S incorporates an on-off switch in its permanent swivel-base, while Model 548SD has on-off switch in the body of the microphone. All models have Cannon-type connectors and are dual impedance.

MODEL 548

MODEL 548S

MODEL 548SD

PRICE	C.O.D.
£21.00	B042
£20.25	B043

PRICE	C.O.D.
£48.75	B044
£51.00	B045
£51.00	B046

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)

MODEL 588SB (Low impedance)

PRICE	C.O.D.
£20.00	B037
£28.50	B038

UNISPHERE B

MODELS 545: 545S: 545SD

Approach the theoretical ideal 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 545S incorporates switch in swivel base; Model 545SD incorporates switch in body of microphone and also has Cannon-type connector.

MODEL 545

MODEL 545S

MODEL 545SD

PRICE	C.O.D.
£41.25	B039
£43.50	B040
£43.50	B041

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)

MODEL 533SF (Low impedance)

PRICE	C.O.D.
£24.25	B047
£14.25	B048

MODEL 579SB

Peak-free, linear, wide-range response and a uniform omnidirectional pick-up pattern makes the Model 579SB the ideal microphone for intimate close talking situations. Incorporates built-in wind and 'pop' filter. Low impedance.

MODEL 579SB

PRICE	C.O.D.
£32.25	B049

VOCAL SPHERE

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

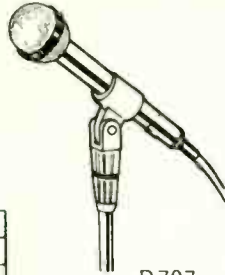
TO CONVERT CARR. PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.



microphones

D707E Cardioid

Available Hi or Low Impedance. Cardioid anti-feedback mike designed for musicians (both instrumentalists and vocalists) and for sound reinforcement systems. This sturdy, sensitive mike is supplied in the 'E' version, with a cannon connector.



D707

PRICE	CODE
24.93	B053
24.93	B054

50k Hi-Impedance
60 or 200 ohm Low

D202 ES 200Ω Impedance

This microphone is extensively used for TV broadcasting, sound recording, and is also a favourite with many film recordists. Its response is similar to that of a condenser mike, the body containing 2 capsules, one for bass, one for treble and a specially designed crossover.



D202

PRICE	CODE
51.25	B059

D190 E Cardioid

Available Hi or Low impedance. A cardioid anti-feedback mike. Designed for sound reinforcement system, sound recording. Also for professional applications—reporting, conference and music. Supplied in 'E' version with cannon connector.



D190

PRICE	CODE
28.12	B055
28.12	B056

50k Hi-Impedance
60 or 200 ohm Low

D1200 E Hi 50k Cardioid

This Hi-Impedance performer mike is designed especially for musicians and singers. It is supplied in the 'E' version with a cannon connector. Built in tone control caters for every type of voice or instrument. Supplied with clip on wind shield for 'pop' use



D1000

PRICE	CODE
43.75	B060

AKG MICROPHONES

D109 Lavalier Mic.

A low impedance mike for studio and film use, with cord and clip and 15 feet attached cable. 200 or 60 ohm.

This mike has a specially tapered response for lavalier work.



D109

PRICE	CODE
18.68	B057

*Complete range of
AKG accessories available.*

YOUR ENQUIRIES INVITED

HENRY'S DISCO PERFORMER MIC.

This microphone is specially made for us, by one of Europe's largest microphone manufactures.

It is one of the most efficient anti-feedback microphone available from us at present, having an extremely good cardioid response. This response is coupled with high sensitivity and output. Recommended both as a recording and a P.A. Mic., this unit contains a similar capsule to microphones of double its cost. Fitted lead and standard jack plug.

We are interested in trade enquiries for this microphone, which is always on demonstration at our PA/DISCO shop.

Thousands can't be wrong!

Available 50k or 200Ω (state which when ordering)



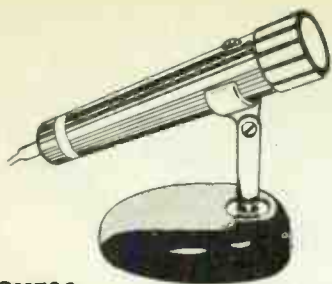
PRICE	CODE
17.43	B058

Fantastic Value and Performance.

On Demonstration Now!

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

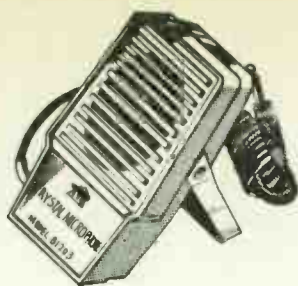
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.



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 onto a floor stand. Supplied complete with table stand as illustrated, plus a Lavalier neck cord.

PRICE	CODE
£4.75	B065



B1203 Crystal Hand/Desk

General purpose crystal microphone in ivory and grey moulded case with louvred front, metal trim and built in desk stand. Ideal for tape recorders and with proved reliability. See-through hanging pack is perfect for peg-board display. 2 metre lead already fitted 3.5mm plug. High Impedance. Size: 48 x 82 x 20 mm. Frequency: 50-10,000 Hz.

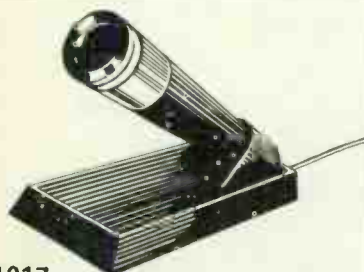
PRICE	CODE
£1.89	B068



B1201 Crystal Microphone (Complete with stand)

This most refined of the original style models 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.

PRICE	CODE
£5.43	B070



B1017 Dynamic Mic. 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.

PRICE	CODE
£2.73	B066



B1019 Dynamic Mic. 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 B1019 incorporates an ON/OFF switch at the side and has a really excellent performance with an extremely sensitive pick-up.

PRICE	CODE
£3.37	B069



CM.73 Crystal Microphone

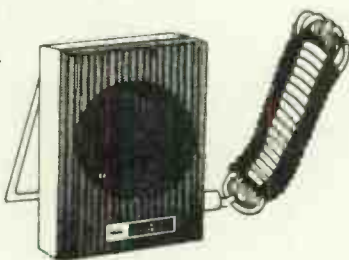
A well-styled low-cost stick microphone supplied complete with ON/OFF switch and 2 metres of cable fitted with a standard jack plug. A new type of high output cartridge ensures adequate loading for high impedance microphone inputs.

Impedance: 1 M ohm.
Response: 60-10,000 Hz.
Average Output: 8 mV

PRICE	CODE
£3.78	B071

B1012 Dynamic Hand/Desk Microphone

Especially recommended for tape recording. This 50Kohm dynamic model is neatly styled in black and white. The moulded housing includes a metal fold-back strut. 3' 6" lead with 3.5mm sealed plug already fitted. 100-8,000 Hz.



PRICE	CODE
£1.89	B067

ACOS 45 Hand Microphone

Crystal microphone styled for comfort in either hand. Robust die cast case for stability and freedom from hand capacity effects. Neat foldaway stand. ±3dB 30c/s to 6 kc/s. Supplied with 6 ft. screened cable and detachable clip. Very sensitive.



PRICE	CODE
£1.87	B072

CARR./PACKING ON ALL MICROPHONES 'A'

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR./PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

BF50B Communications Dynamic 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-pressured 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 50k ohms.

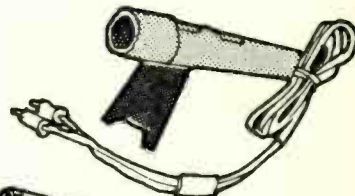
CODE B077
PRICE ON APPLICATION



B1223 Dynamic Cassette

A good basic model intended as a replacement or spare for compact cassette recorders. Robustly moulded stick casing in shiny black with relieving silver trim on diaphragm and panel incorporating the remote control ON/OFF slide switch. Supplied with 1 metre lead fitted 'floating' 2.5mm and 3.5mm plugs, and push-on strut. Hanging display pack. Impedance: 200 ohms. Sensitivity: 80 dB. Frequency: 100-10,000 Hz. Size: 25mm dia. x 120mm.

PRICE	CODE
£1.89	B078



B1212 Dynamic Cassette

Beautifully slim styling in jet with chrome top embellishment, this microphone will operate all cassette recorders requiring remote control ON/OFF switching. Excellent, smooth performance. Combined with versatile socket connections due to 'floating' 2.5 and 3.5mm plugs termination on 1 metre length lead. See-through display pack also containing moulded stand.

PRICE	CODE
£2.73	B079



Crystal Contact Microphone

Supplied with screened cable. A sensitive high impedance contact microphone particularly suitable for musical instruments. Clips onto soundboard of guitar. Ideal for any amplifier.

PRICE	CODE
£1.12	B080



B7110 Electret Tie-pin Microphone

This miniature electret condenser lavalier microphone has the unique feature that the 1.5V battery cell is housed in the special casing behind the jack plug and so allows the actual microphone to be small enough to be mounted on a tie-pin.

Supplied with 6 metres of screened cable.

PRICE	CODE
£16.25	B081

Impedance: 800 ohms
Frequency: 50-13,000 Hz
Current
Consumption: 200 uA
Battery Life: 5,000 hours

Sensitivity: 66 db
Polar
Pattern: Omni-directional
Size Mic.: 13mm dia. x 30mm
Plug: 20mm dia. x 128mm



B1238 Condenser

Pencil slim design in machine turned aluminium with 1.5V internally located battery and ON/OFF switch plus exceptional omni-directional performance, must result in this model representing a break-through in size and quality of condenser microphones. Easy to hold in the hand or use with the elegant chrome and white moulded adjustable stand. Supplied with push-on ball wind shield in fiery red and 3 metre lead already fitted with moulded standard jack plug.

Impedance: 600 ohms
Frequency Response: 20-13,000 Hz

Sensitivity: 74 db
Size: 14mm dia. x 150mm.

PRICE	CODE
£9.45	B082



Telephone Recording Adaptor

Designed for use with amplifiers or tape recorders for listening to or recording telephone conversations. Impedance about 2k ohm with sufficient output for valve or transistor equipment. Miniature size, fitted with rubber sucker which presses on to telephone in position giving maximum volume.

PRICE	CODE
0.83	B083



Carr/Packing on all items above 'A'

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T...

microphone stands & boom arms

ILLUSTRATIONS
ARE NOT TO SCALE

(PRO S1), (PRO S2) and (PRO S3)

Professional microphone stand systems

The PRO S3 is a heavy duty collapsible base, finished in chrome. It has been designed to accept either the PRO S1 or PRO S2 stems. PRO S1 is a short stem for use with studio boom microphones such as the PRO M25. PRO S2 is a floor stem in two sections. A combination of the above makes up a stand suitable for the true professional and studio user.

(PRO S1) Length: 285 mm

(PRO S2) Length: 787-1447 mm

(PRO S3) Height: 88mm Base Extension: 290mm

PRICE	CODE
£3.37	B088
£9.00	B089
£9.00	B090

FLOOR STAND B091

Two section hydraulic stand on a heavy cast iron base. Ideal for all purposes, very attractively priced.

Carr/Pack C

PRICE	CODE
£9.37	B091

B092 (B.1426) Folding Floor Stand

Two section chrome stem stand with 'snare drum' quick locking system for tripod legs which can be folded easily for transit but are perfectly firm when erected. 300mm (12") legs fitted with stout non-slip rubber ferrules. Well made, strong, adjustable for height up to 1.5 metres (60") yet easily portable and ideal for group and disco use. Supplied with adapter termination, 580 mm between tripod points.

Carr/Pack C

PRICE	CODE
£7.87	B092

(DS1) and (DS2) Desk Stand

The DS1 desk stand is a perfect choice for situations where a fixed height stand is needed.

A smart grey plastic base and heavy chrome rod complete the specification of this very realistically priced piece of equipment. The DS2 is suitable for heavy duty or studio work. Finished in black and chrome the DS2 has an adjustable height range of 180mm to 320mm.

DS1 Base Diameter: 125mm Height: 90mm

DS2 Base Diameter: 130mm

Height: Adjustable 180-310mm

PRICE	CODE
£2.77	B093
£3.99	B094

(SF.37) B 095 Desk Stand

This is a most unusual and attractive desk stand. Consists of elegantly styled 3" tripod legs with rubber protective feet, fitted on to a beautifully shaped metal centre 2" high designed to accept most microphone adaptors and holders, practically all models for instant securing.

PRICE	CODE
£4.05	B095

(PRO S4) and (PRO S5) Boom Arms

Designed specifically for the above systems, the PRO S4 is a short boom-arm for interviews, conferences, etc., while the PRO S5 is intended for studio and group applications. Both are finished in heavy chrome plate and include quick release tilt and heavy microphone counter balances. A must for musicians, studios, etc.

(PRO S4) Length: 787 mm

(PRO S5) Length: 1015 mm

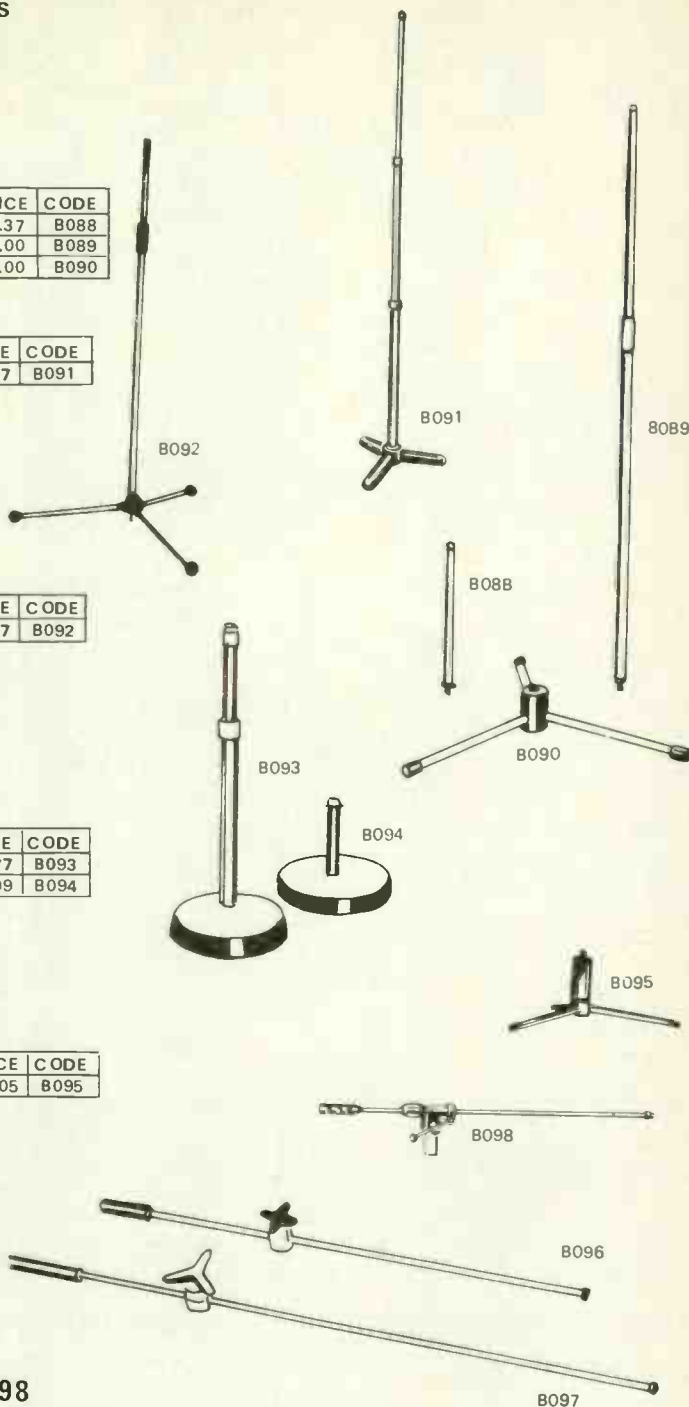
PRICE	CODE
£9.00	B096
£10.12	B097

Matching Microphone Boom (B.1416) B098

Intended for operation with model B.1426 stand, this colour matching boom is 32" long and angle adjustable through 190° with easy-grip boom travel locking and positive wrench type angle adjustment. Screw type coupling to boom and for acceptance of virtually all microphones.

PRICE	CODE
£12.50	B098

Carriage/Packing on all above items (except where stated) 'B' WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.



Microphone accessories

Carriage/Packing on all items A

B

B103 CRADLE SUSPENSION



PRICE CODE
£10.12 B103

An exciting development of outstanding interest to professional sound recording studios and engineers, this cradle provides vibration free suspension for most types of stick and pencil mics. Well made of cast aluminium and covered elasticated cord with vari-angled moulded bracket for fitting onto stands and booms. Overall size: 90mm dia. x 110mm plus 70mm extension for bracket length. Acceptance bore: 23 tapering to 21mm

B104



B105



B106

MICROPHONE HOLDERS

A range of robust microphone holders. B104 is moulded ABS holder while B105 and B106 are metal with felt lining to protect the microphone. Stand adaptors are provided with the B104 and B105. B106 is a self-contained stand for cassette microphones. All the holders incorporate generous cable cut outs for instant microphone release.

PRICE CODE
£1.51 B104
£1.87 B105
£2.10 B106



B107 "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.

PRICE CODE
£1.08 B107



8" 13" 21" FLEXIBLE GOOSENECK STEM

High quality flexible metal stems with male and female thread terminations. Fully hollow tube making these ideal for use as microphone extensions.

	PRICE	CODE
8"	£2.40	B108
13"	£3.37	B109
21"	£4.20	B110



B111 QUICK RELEASE MICROPHONE ADAPTOR

PRICE CODE
0.68 B111

Allows instant removal of microphone from stand.



PRICE CODE
£1.62 B112

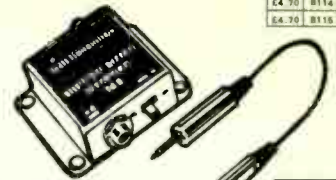
B112 MICROPHONE ADAPTOR KIT

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.

B113 ADAPTORS FOR MICROPHONE STANDS

PRICE CODE
0.30 B113

Chrome steel threaded adaptors as used on table and floor microphone stands, 1/4" inside thread; 5/8" outside.



PRICE CODE
£4.70 B114
£4.70 B115

PRICE CODE
£5.62 B116

MX.5, MX.6 and PPTX MICROPHONE MATCHING UNITS

The MX.5 and MX.6 switched transformer units are designed to feed balanced or unbalanced mics. into an un-balanced high impedance input, feed high impedance mike to balanced input or extend high impedance mike leads. The PPTX enables XLR balanced microphones to be fed into high impedance unbalanced standard jack inputs.

MX.5 Impedance Matching: 20-50 ohms.

MX.6 Impedance Matching: 200-600 ohms.

Output: 50K ohms.

Dimensions: 70 x 65 x 30mm.

PPTX Impedance Matching: 200-600 ohms. Output: 50K ohms.

Cable Length: 2 metres.



B117 "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. Dimensions: 145 x 38 x 38 mm

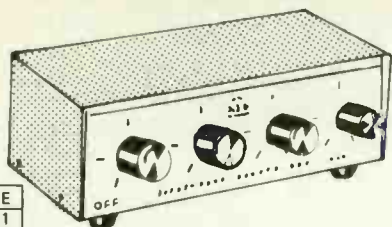
PRICE CODE
£3.50 B117

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT. TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

MIXERS & PRE-AMPLIFIERS (battery operated)

CARR./PACK ON ALL ITEMS 'B'

B121 De Luxe Mono Microphone Mixer

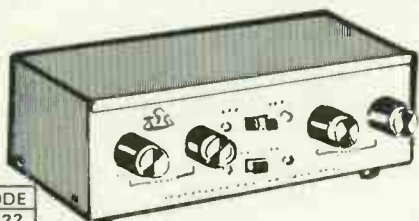


PRICE	CODE
£5.31	B121

Intended to replace previous Model, this fully transistorised Mixer has a new presentation of crackle beige with distinctive black metal capped knobs. The four level controls have graduated markings. Input jack sockets and the phono output socket are rear located. Supplied complete with operation instructions. The internally located 9V battery will provide app. 400 hours use.

Input Impedance (Crystal, etc.): 100K ohms. Max. Input Signal 1V. Max. output signal: 1.3V. Hum Level: Negligible. Gain: Approx. 3dB. Dimensions: 152 x 70 x 51 mm approx.

B122 De Luxe Stereo/Mono Microphone Mixer

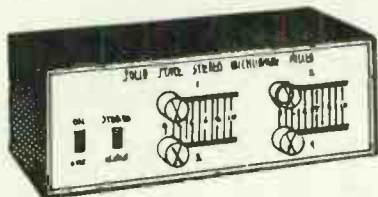


PRICE	CODE
£8.75	B122

This smartly presented Mixer is finished in beige crackle and features new type black metal capped knobs which are used for the individual gain adjustment of each Input socket. The two slide switches are for mono/stereo function and power On/Off. Neat jack type input sockets are rear located together with phono type output sockets; rubber feet have been fitted for furniture protection. Supplied complete with operation instructions.

Input Impedance: 100K ohms (suitable for Crystal Mics. etc.) Max. Input Signal: 1V. Max. Output Signal: 1.3V. Hum Level: Negligible. Gain: App. 3dB. Size: 152 x 70 x 51 mm approx.

B123 and B124 4-Channel Microphone Mixers



PRICE	CODE
£8.40	B123
£12.95	B124

Developed from the very successful MM.4 the mono B123 and stereo B124 offer slider controls at a modest price. The B123 mixes four inputs (mikes, ceramic phono or tape) into a single output while B124 mixes two inputs on the left-hand channel and two inputs on the right-hand channel. B123

B123 Inputs: 4 x 50K ohm Microphone, Phono or Tape. Gain: 3dB. Battery: PP3. Dimensions: 150 x 55 x 85 mm. B124 Input Impedance: 50K ohms. Inputs: 1+2 to left output. 3+4 to right output. Gain: 6dB. Battery: PP3. Dimensions: 15 x 55 x 85 mm.

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT. TO CONVERT CARR./PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

B125 4-Channel Mono Mixer & Pre-amplifier



PRICE	CODE
£31.50	B125

Similar to the very successful MP-12 mixer and pre-amplifier this versatile studio unit has four high/low switched microphone inputs with individual slider controls and one master slider to control the total signal out. Channel 4 input can be switched between mic and aux.

SPECIFICATION:

4 Microphone Switched Inputs: 0.5mV @ 600 ohms or 4mV @ 50K ohms. Phono: 180mV @ 100K ohms. Output: Low-200mV, Hi-2 volts. Signal/Noise: Better than -50dB. Batteries: 2 x PP3. Dimensions: 250 x 180 x 46 mm sloping to 28 mm.

B126 6-Channel Stereo/Mono Mixer and Pre-amplifier



PRICE	CODE
£38.25	B126

Built around studio console slider controls the B126 has been designed as a 6 channel Stereo/Mono Mixer and Pre-Amplifier. All the mic. inputs can be individually switched between high and low impedance so that any combination of microphones can be used. The mic. inputs are all independently controlled whilst the phono input is stereo ganged.

SPECIFICATION

4 Microphone Switched Inputs: 600 ohms 1mV or 50K ohms 2mV. Stereo Phono Input: 2 x 3.5mV @ 47K ohms (RIAA). Output Switched Stereo/Mono: 2 x 250mV. Signal/Noise: Better than -50dB.

B127 7-Channel Stereo Programme Mixer and Pre-Amplifier



PRICE	CODE
£38.25	B127

Designed as a result of careful research into the requirements for Disco use the B127 gives a total of three stereo and one mono slider controlled channels for two x stereo magnetic phono inputs, one x stereo tape input and one x mono microphone input feeding both channels. A master slider fades all channels and controls overall output level.

2 Stereo Magnetic Phono Inputs: 3mV @ 47K ohms (RIAA). 1 Stereo Tape Input: 100mV @ 100K ohms. 1 Mic Input: 3mV @ 50K ohms. Output Switched Stereo/Mono: 2 x 250mV @ 50K ohms. Signal/Noise: Better than -50dB. Batteries: 2xPP3 Dimensions: 250 x 180 x 46 mm sloping to 28 mm.

mixers pre-amplifiers & reverberation units

Carr./Pack. on all units 'C'

B 131 2 Channel Reverberation Amplifier



A professional two channel reverberation/mixer unit with two microphones and two instrument inputs. As well as depth of reverb, separate mic. and instrument controls allow mix and fade effects. Hard wearing leather grain PVC covered cabinet and sloped front control panel.

MIC. INPUTS: 2 @ 600 ohms
 INSTRUMENT INPUTS: 2 @ 100 K ohms.
 OUTPUT: 500 mV @ 100 K ohms.
 DIMENSIONS: 300 x 88 x 170 mm

PRICE	CODE
24.15	B131

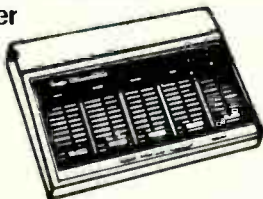
B 132 Reverberation Amplifier



Completely self-contained battery-operated transistorised reverberation amplifier—gives extra richness to one-dimensional sound from a single source. Controls to adjust volume and reverberation. No complicated wiring—just plug microphone into RA856, and output into the amplifier. Walnut cabinet. Input: 5 mV @ 10 K ohms. Output: Variable 0—600 mV. Delay: Variable 20—30 mS. Size: 190 x 75 x 110 mm. Battery type: PP3.

PRICE	CODE
14.70	B132

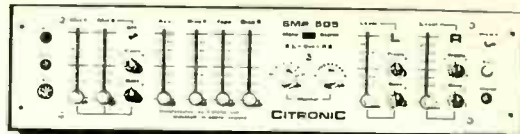
B133 Stereo Frequency Controller and Pre-amplifier



Based on the SEC System used in the extremely successful Eable AA.6 Stereo Amplifier, B133 uses five slide controls to provide ± 10 dB of boost or cut for the same carefully selected frequency bands of 40, 200, 1200, 6,000 and 15000 Hz. Stereo inputs are provided for magnetic phono, auxiliary and tape. Inputs: Magnetic Phono: 3 mV @ 47 K ohms (RIAA). Aux: 200 mV @ 100 K ohms, Tape: 200 mV @ 100 K ohms. Output Switched Stereo/Mono: 2 x 200 mV @ 50 K ohms. Signal/Noise: Better than -50 dB. Batteries: 2 x PP3. Dimensions: 250 x 180 x 46 mm sloping to 28 mm.

PRICE	CODE
38.50	B133

B134 6 Channel Stereo Mixer & Pre-amplifier



This professional quality mixer/pre-amp is designed specifically to meet the needs of the disc jockey and club owner. It has six inputs each with a separate level control, microphone tone control and individual channel, master level, treble and base controls. The whole unit may be switched mono/stereo and has facilities for recording all inputs including microphones. P.F.L. is incorporated on five of the inputs and the output channel, together with cue lights.

FACILITIES

2 separate microphone inputs, each with slider level control, rotary bass and treble controls. Microphone 2 is switchable from the front panel.

1 Auxilliary Stereo input/output with slider level control.

1 Tape Stereo input/output with slider level control.

Master level slider controls for each channel.

Master Base and Treble rotary controls for each channel. (DOES NOT AFFECT MICROPHONE TONE SETTINGS).

Microphone override control.

Stereo Slave output socket.

Headphone monitoring and cue light monitoring on all inputs except Microphone 2 and on overall output.

Master Stereo/Mono Switch.

TECHNICAL SPECIFICATION

INPUTS:

Mains Supply: 240 \pm 10% 50/60 Hz
 Microphones 1 & 2: 3 mV into 100K m xed to both channels.
 Auxilliary: 50 mV into 100K Stereo
 Disc 1 & Disc 2: 3 mV into 47K (RIAA Curve) Stereo.
 Tape: 500 mV into 50K Stereo

PRICE	CODE
153.56	B134

OUTPUTS:

Signal Output: 500 mV Stereo for rated inputs with level controls at maximum and tone controls set to mid position.

Headphone

Monitor: 2 x 100 mW into 8 ohm from internal 8 ohm matching.

Record:

50 mV Stereo.

Overload

Capability: Minimum 22 dB on any input.

Tone Networks

Base ± 16 dB @ 30 Hz
 ± 4 dB @ 100 Hz

Treble ± 12 dB @ 10 KHz

Monitor Facilities: a. Switchable to all inputs except Mic. 2 and to the overall output.

b. Volume control.

c. Left and right channel cue lights.

Dimensions: Height 4.5", Length 19", Depth 3.75"
 Cut out required: 4.125" x 17.75"

B135 ECHO CHAMBER

Probably the most luxurious on the market. Beautifully finished in black leatherette case with carrying handle. Has endless tape cartridge. Quality reproduction ensured by stationary play heads. Servo motor changes speed to vary echo as required. Has following controls:- Volume, Balance, Repeat Sound, Reverberation Delay. Also usual Jack Sockets, Indicator, switch, etc.

PRICE	CODE
56.25	B135
8.10	B136

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.



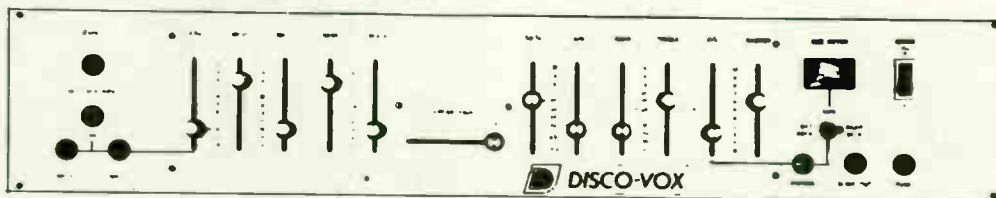
Has separate tone controls for both mic and decks, and each input has a volume control, plus the addition of a cross-fade for deck to deck transfer, and a tape input again with it's own volume control. A built-in 3-way P.F.L. monitoring system and mic. over-ride are fitted as standard.

SPECIFICATION

Frequency Response: 20-20,000 ± 2 db.
 Distortion: less than 1%
 Signal Noise Ratio: Better than -55 db.
 Bass: continuously variable 25 db at 100 Hz
 Treble: continuously variable 25 db at 10 KHZ
 Inputs Mic: 5 mv at 50 K ohms
 Inputs P U 100 mv at 1 meg ohm
 Inputs Aux: 100 mv at 1 meg ohm
 Fuse: 1.5 amp 20 mm Quick Blow (with one Power Amp connected) (i.e. 100 watts)
 Fuse: 3 amp 20 mm Quick Blow (with two Power Amps connected) (i.e. 200 watts)

PRICE	CODE
65.62	B140

D.J. Disco-Vox Discotheque Pre-Amplifier



The Disco-Vox Discotheque Pre-Amp has been specifically designed to offer the user the highest quality, most versatile professional discotheque unit available at the present time. The unit incorporates many exclusive features that will be of prime importance to the amateur, and professional D.J. alike. Slider controls are used for all of the main functions which facilitate ease of operation for the user. Added to this are two mic inputs with their own volume and tone control and featuring a "Vox" automatic mic over-ride which can also be used manually if required.

The turntable section has its own volume control, coupled with a Left to Right cross-fade slider, which in conjunction with the tape input is connected to a comprehensive P.F.L. Headphone monitoring circuit and a visual cue system for complete Visual and Audible control over all input channels.

TECHNICAL SPECIFICATION

Frequency Response: 30-20,000 Hz ± 2 db
 Distortion: Less than 1%
 Input Sensitivity & Impedance
 Mics: 5 Mv at 50K ohms flat
 Tape: 250 Mv at 25 K ohms flat
 Turntables: Ceramic 150 Mv at 2 megohm
 Turntables: Magnetic (Optional) 5 Mv at 47K ohms
 Tone Controls
 Bass: Variable 26 db at 100 Hz
 Treble: Variable 26 db at 10 K Hz
 Pre-Amp Output: Up to 1 volt (RMS) via emitter follower output
 PFL Output: Up to ½ volt into 16 ohms with 200 Mv IP
 Panel Fuses: A.C. 2 Amp 20 mm
 Front Panel Size:
 724 x 140 x 71 mm approx.

PRICE	CODE
91.77	B141

AA10 & AA26 4-Channel Quadraphonic Synthesisers

Combined with two additional loud-speakers the AA10 and AA26 give a dramatic new dimension to any two channel stereo system providing two extra rear information channels. They are completely self-contained and include built-in level controls and speaker check switches. AA26 identical to AA10 but carries front and rear output sockets for four channel headphones.

Max. continuous input rating: 35 watts RMS per channel.
 Input Impedance: 8 ohms.
 Output Impedance: 8 ohms.
 Dimensions: 224 x 70 x 148 mm.

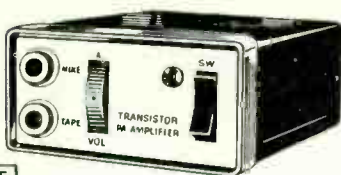


ITEM	PRICE	CODE
AA10	18.90	B142
AA20	21.00	B143

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
 TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE, PRICE INCLUSIVE OF V.A.T.

Mobile public address amplifiers,

B148 12V Public Address



PRICE	CODE
£34.73	B148

A most compact PA 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 Imps: 4, 8 and 16 ohms. Power: 10-16V d.c. Inputs: Mic, Magnetic and crystal Tape. Radio or Tape Output. Controls: Volume; ON/OFF switch. Lamp. Size: 103 x 51 x 128 mm approx. 6.5 kg.

B149 Public Address Mains/Battery

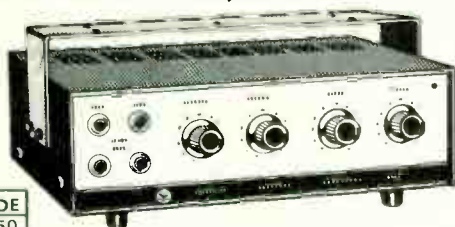


PRICE	CODE
£41.00	B149

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 Kohms, Aux. 200 mV; Music 200 mV. Controls: Mic, 1 Volume; Mic, 2 Volume; Aux. ad Music Volume; Tone; Power ON/OFF. Lamp. Dimensions: 243 x 185 x 95 mm approx. Weight: 3.53 kg approx.

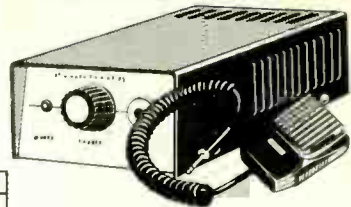
B150 Mains/Mobile PA amplifier



PRICE	CODE
£54.43	B150

Latest transistor techniques give one of the best output to size ratios in PA. Operates on 240 volts AC or 12 volts DC 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: Low-2 mV @ 600 ohms, Hi-5 mV @ 50,000 ohms. Mic 2: Low-2 mV @ 600 ohms, Hi-5 mV @ 50,000 ohms. Aux/Phono: 300 mV @ 50,000 ohms. Signal to noise ratio: Better than 50 dB. Output Impedance: 4, 8 and 16 ohms, 25 and 100 volt line output. Operating voltage: 220-250 volts AC or 12 volts DC. Dimensions: 241 x 102 x 190 mm.

B151 Mobile PA Amplifier



PRICE	CODE
£19.44	B151

Built for hard work the B151 mobile has been made really compact for easy installation in any vehicle. With only one knob to control output level and an integral microphone push-to-talk switch, operation could not be simpler. Supplied complete with CB microphone and all mounting hardware. Output power: 10 watts peak. Output impedance: 8 and 16 ohms. Operating voltage: 12 volts DC. Dimensions: 80 x 40 x 150 mm.

B152 Mobile PA amplifier



PRICE	CODE
£42.76	B152

A powerful integrated Circuit 36-watt mobile amplifier complete with mounting bracket for quick and simple installation in positive or negative earth systems. Controls include independent levels for microphone and auxiliary inputs with a master tone control for both channels. Supplied complete with fuse and wiring harness.

Output power: 36 watts peak. Frequency range: 100-11,000 Hz. Inputs: Mic: 5 mV @ 600 ohms. Aux. 150 mV @ 100,000 ohms. Output Impedance: 8 and 16 ohms. Operating voltage: 12 volts DC. Dimensions: 145 x 65 x 235 mm.

B153 Mains/mobile PA amplifier



PRICE	CODE
£45.36	B153

Compact, all-transistor PA amplifier designed for versatility and reliability. Operates on 240 volts AC, or 12 volts DC. 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 @ 50,000 ohms. Mic 2: 2 mV @ 600 ohms. Aux. 200 mV @ 50,000 ohms. Phono, 200 mV @ 50,000 ohms. Signal to noise: Better than 50 dB. Output impedance: 4, 8, 16 ohms, 25 and 100 volt line. Operating voltage: 12 volts DC or 240 volts AC. Dimensions: 240 x 100 x 190 mm.

CARRIAGE/PACKING ON ALL ABOVE ITEMS 'B'

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT. TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

Public address amplifiers

B158 Paging amplifier

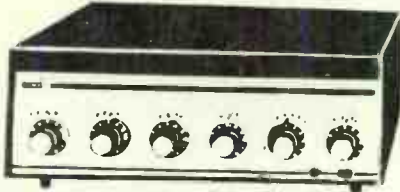


PRICE	CODE
£52.48	B158

The B158 is ideally suited for the compact installation where message clarity is vitally important. Facilities include: built-in electret capacitor microphone, auxiliary input for tape player, tuner etc., low impedance and 100 volt line outputs.

Output power: 20 watts peak. Frequency range: 60–17,000 Hz. Inputs: External Mic. 2 mV @ 50,000 ohms. Aux 1, 140 mV @ 100,000 ohms. Aux 2, 140 mV @ 100,000 ohms. Signal to noise: Better than 50 dB. Output impedance: 4.8 ohms and 100 volt line. Operating voltage: 240 volts AC. Size: 228 x 90 x 225 mm.

B159 PA amplifier

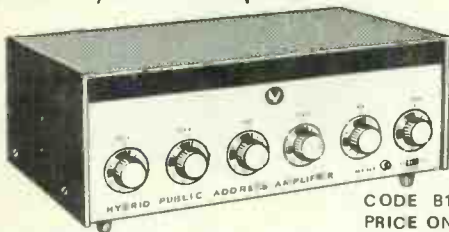


CODE B159
PRICE ON APPLICATION

A new updated version of this best-selling PA amplifier, now with 50 watts output on 240V 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, Aux./Phono 300 mV. Signal to Noise: Better than 50 dB. Output Impedance: 8, 16, 250 ohms and 100 V line. Size: 320x216x254.

B160 Hybrid PA amplifier

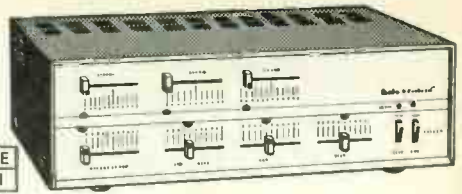


CODE B160
PRICE ON APPLICATION

Re-styled as well as electronically updated, the Hybrid PA B160 carries on the fine traditions of its best selling predecessor. The new solid state pre-amplifier section gives all the low noise advantages of transistors while the parallel power valve push pull output stage continues to give the utter reliability which made it's predecessor so popular with its many users.

Output power: 50 watts peak. Frequency range: 30–15,000 Hz. Mic 1: 3 mV @ 50,000 ohms. Mic 2: 3 mV @ 50,000 ohms. Aux./Phono: 300 mV @ 50,000 ohms. Signal to noise: Better than 50 dB. Output impedance: 8, 16, 250 ohms and 100 volt line. Dimensions: 320 x 216 x 254 mm.

B161 Mains/mobile professional PA amp.



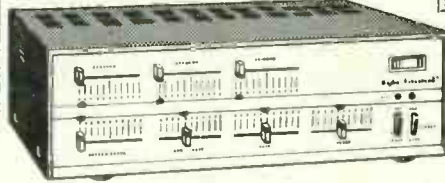
PRICE	CODE
£93.30	B161

Following their introduction in 1973, the PRO A series of amplifiers have already set new standards in the public address industry. Engineered for complete reliability. Features include slider controls with pre-set markers, solid state priority page relay and resettable safety circuits.

Output power: 35 watts RMS. Frequency response: 50–18,000 Hz. Inputs: Mic 1: Hi 5 mV @ 50,000 ohms or Lo 200 uV @ 200 ohms (using PPLZ). Mic 2: 5 mV @ 50,000 ohms. Mic 3: 5 mV @ 50,000 ohms switchable to Magnetic phono: 4 mV @ 47,000 ohms (RIAA). Aux./tuner: 400 mV @ 100,000 ohms. Signal to noise ratio: Better than 70 dB. Output impedance: 4, 8 and 16 ohms and 100 volt line output. Operating voltage: 220–250 volts AC or 12 volts DC. Dimensions 350 x 130 x 310 mm.

B162 Professional PA amplifier

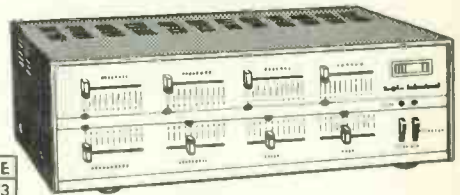
PRICE	CODE
£116.64	B162



Middle unit in the PRO A series, the PRO A65 delivers 65 watts of solid RMS power. In common with the other PRO A units an XLR connector is used on Mic 1 and a plug-in internal transformer (model PPLZ) converts from high Z to 200 ohms balanced or unbalanced.

Output power: 65 watts RMS. Frequency range: 40–20,000 Hz. Inputs: Mic 1: 5 mV @ 50,000 ohms or Lo 200 uV @ 200 ohms (using PPLZ). Mic 2: 5 mV @ 50,000 ohms. Mic 3: 5 mV @ 50,000 ohms switchable to Magnetic phono: 4 mV @ 47,000 ohms (RIAA). Aux./tuner: 400 mV @ 100,000 ohms. Signal to noise ratio: Better than 70 dB. Output impedance: 4, 8 and 16 ohms and 100 volt line output. Operating voltage: 220–250 volts AC. Dimensions: 350 x 130 x 310 mm.

B163 Professional PA amplifier



PRICE	CODE
£155.52	B163

Has all the features of the other PRO A models plus a level meter to monitor relative output. Again in common with the other PRO A units both low impedance and 100 volt balanced line outputs are provided.

Output Power: 120 watts RMS. Frequency range: 35–20,000 Hz. Inputs: Mic 1: Hi 5 mV @ 50,000 ohms or Lo 200 uV @ 200 ohms (using PPLZ). Mic 2: 5 mV @ 50,000 ohms. Mic 3: 5 mV @ 50,000 ohms switchable to Magnetic phono: 4 mV @ 47,000 ohms (RIAA), Mic 4: 5 mV @ 50,000 ohms. Aux./Tuner: 400 mV @ 100,000 ohms. Signal to noise ratio: Better than 75 dB. Output impedance: 4, 8 and 16 ohms and 100 volt line output. Operating voltage: 220–250 volts AC. Size: 350x130x310mm.

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT. TO CONVERT CARR./PACK. CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

CARRIAGE/PACKING
ON ALL ABOVE 'B'

Turntables & Record Players



Garrard SP 25 Mk. IV Chassis turntable

Single record play with fully automatic facility; three-speed with aluminium turntable; calibrated bias compensator; viscous-damped cue and pause system; a slide-in cartridge carrier; dynamically balanced low-resonance tubular pick-up arm; calibrated fine stylus force adjustment.

Size: 382 x 318 x 75 mm above and 52mm below.

PRICE	CODE
17.94	B181

Garrard MPS 25

As above but complete with Shure M75/6 cartridge, Plinth and cover.

PRICE	CODE
31.87	B182

B.S.R. McDonald MP 60 Single Player

Features: four speeds; high-precision low-mass pick-up arm with calibrated stylus pressure; light-weight cartridge shell; bias compensator; heavy balanced large turntable, simple operating controls; viscous cueing device; anti-skating control, complete with cartridge, plinth and cover.

Overall size: 333.4mm x 285.8mm.

PRICE	CODE
28.69	B183



MP 60/TP0 with Plinth & Cover less Cartridge

PRICE	CODE
24.38	B184

MP 60 Chassis less Cartridge

PRICE B.185

PRICE	CODE
15.60	B185

BSR McDonald HT 70 Single Player

Features: 3 speeds; 280mm diameter diecast alloy turntable; synchronous dynamically balanced four pole motor. Plug in head, counter balanced arm; Bias compensator; Tracking control. Viscous damped cue control. Anti-skate device. Complete with cartridge, plinth and cover.

PRICE	CODE
36.19	B186

HT 70/TP0 with Plinth & Cover less Cartridge

PRICE	CODE
30.62	B187

HT 70 Chassis less Cartridge

PRICE	CODE
21.56	B188

BSR 710 Player Chassis less Cartridge

Features: 2 speed transcription player with single speed or also automatic facility; Push button operation; Low Mass Aluminium pick-up arm; Resiliently mounted counter weight. Time Speed adjustment of $\pm 3\%$; Hydraulic viscous damped cue and pause control. Slide in cartridge carrier; stroboscopic disc speed indicator. Automatic pick-up arm lock.

Size: 394 wide, 307mm deep, 127mm above base plate, 67mm below base plate (approx).

PRICE	CODE
39.37	B190

BSR 810 Player Chassis less Cartridge

Features: 2 speed transcription motor unit with a fitted pick-up arm; single play with automatic option; Fine speed control; Four pole synchronous motor; stroboscope in centre disc to turntable; Dual range anti-skid device; stylus brush; Stylus pressure adjustment; Automatic pick-up arm lock; slide in cartridge carrier, viscous damped cue and pause control; push-button operation.

Size: Chassis 381mm wide, 311mm deep, 127mm above base plate, 67mm below base plate (approx)

PRICE	CODE
48.68	B191



BSR 610 Automatic Chassis less Cartridge

Features: 3 speed changer; Pulley drive, Four pole motor; Anti-skate device; counter balanced plug in head; Viscous damped cue-control; muting switch

PRICE	CODE
19.65	B189

CARRIAGE/PACKING ON ALL ABOVE 'C'

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

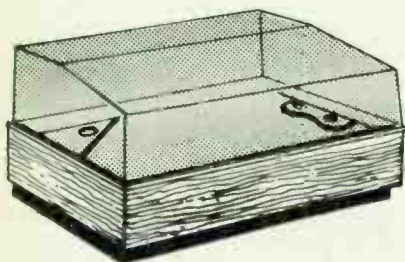
SLIDE-IN CARTRIDGE CARRIER

A BSR quick-change slide-in cartridge carrier is the easiest way to change or inspect different cartridges. Avoids constant fitting of alternative cartridges into existing carrier. Simply slide out one — slide in the other. Models are available to suit all McDonald tone-arms (except 210).

Carr/Pack 'A'

PRICE	CODE
0.73	B198

PLINTHS & COVERS Model P1/T1



CARR/PACK 'B'

Overall size: 12" x 14" x 7". For Garrard models SP25, SL65B, 2025TC, 3500, 3000, Deccadec etc. Teak with rigid smoked cover.

PRICE	CODE
4.69	B199

LOW COST CARTRIDGES (Carr/Pack 'A')

ACOS STEREO TURNOVER CARTRIDGE

GP93-1 Stereo Crystal

30-18 KHz, O/P 280mV per channel

Sapphire stylus
Diamond stylus

PRICE	CODE
1.43	B201
1.85	B202

GP94-1 Stereo Ceramix

30-14 KHz D/P 100 mV per channel

Sapphire stylus
Diamond stylus

PRICE	CODE
1.85	B203
2.18	B204

(NOTE GP95-1 use GP93-1
GP96-1 use GP94-1)

SONOTONE—MONO CARTRIDGE

9TAM/C Diamond

PRICE	CODE
1.87	B205

Large range of styli in stock to fit most low cost cartridges.

C141 DE LUXE MULTI-SPEED CHANGER

Cue and pause facilities. Pick-up arm bias compensation. Tubular low-mass pick-up arm. Lightweight cartridge shell. Fitted ceramic cartridge/diamond stylus. 200-250v A.C

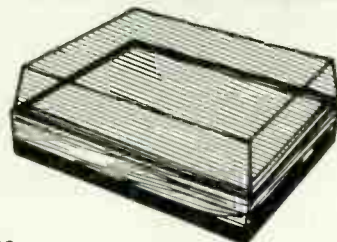
PRICE	CODE
10.62	B197

Carr/Pack 'C'

PRICE	CODE
10.62	B200

Carr/Pack 'B'

MWBIC



Teak base with tinted acrylic lift off/hinged cover. To fit Garrard SP25 Mk.IV. Overall Size: 426 x 381 mm 167 mm in closed position, 432 mm when open.

MONO COMPATIBLE CARTRIDGES

(Plays Mono or Stereo records with mono equipment.)



ACOS SERIES

Single screw or 1/2" fixing centre. Turnover Stylus for LP and 78.

GP 91-1SC

Frequency Response: 50 Hz — 17 kHz
Sensitivity: 200mV 1.2 cm/sec.
Recommended
Downward Pressure: 3 — 6 grammes
Compliance: 4×10^{-6} cms/dyne
Tip Mass: 2.5 mgm dynamic
Recommended Load: 1 M ohm

PRICE	CODE
1.25	B206

GP 91-2SC

Frequency Response: 50 Hz — 17 kHz
Sensitivity: 360mV 1.2cm/sec.
Recommended
Downward Pressure: 5 — 10 grammes
Compliance: 2×10^{-6} cms/dyne
Tip Mass: 3.5 mgm dynamic
Recommended Load: 1 M ohm

PRICE	CODE
1.25	B207

GP 91-3SC

Frequency Response: 50 Hz — 15 kHz
Sensitivity: 630mV 1.2cm/sec.
Recommended
Downward Pressure: 5 — 10 grammes
Compliance: 2×10^{-6} cms/dyne
Tip Mass: 3.5 mgm dynamic
Recommended Load: 1 M ohm

PRICE	CODE
1.25	B208

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

Public address loudspeakers (horn type)



HDA.5 7.5 WATT PA SPEAKERS

A competitive, up dated version of model SC.5, rated at 7.5 watts continuous duty, excellent response and out-put for its compact size. Finished in gold amodize throughout.

Power Handling: 7.5 watts continuous rating. Frequency Range: 450-12,000 Hz. Dispersion Angle: 120°. Impedance: 8 ohms. Dimensions: 150 x 134 mm.

PRICE	CODE
£10.88	B225



HDA.15T Multi Tap 15 Watt PA Speaker

The HDA.15T has a built in totally enclosed Multi-Tap transformer so that just by rotating the 4 way input plug the unit can be exactly matched in seconds. Once in position the plug locking ring is screwed home to provide a secure and reliable connection. Supplied complete with connecting cable and plug.

Power Handling: Tapped 100 volt line — 15, 7.5, 3.5, and 2 watts continuous rating. Frequency Range: 300-13,000 Hz. Dispersion Angle: 110°. Impedance: 8 ohms. Dimensions: 280 x 216 mm.

PRICE	CODE
£22.36	B226



HDA.30T Multi Tap 30 Watt PA Speaker

As HDA.15T but greater power handling, frequency range and size. Power Handling: Tapped 100 volt line — 30, 15, 7.5 and 4.5 watts continuous duty. Frequency Range: 250—13,000 Hz. Dispersion Angle: 105°. Impedance: 8 ohms. Dimensions: 304 x 254 mm.

PRICE	CODE
£29.15	B227

Carr/Packing on all above 'C'



K2109

Cone Reflex weatherproof housing for use up to 5 watts. Response 300-16,000 Hz. Impedance: 4 ohms. Swivel angle bracket. Size 5" diam. x 2 1/4". Weight 1lb.

PRICE	CODE
£6.80	B224



HDB.8 20 WATT PA SPEAKER

Updated version of Model SC.10F. Now with twice the handling capacity and using a new system of diaphragm impregnation for even greater reliability. Power Handling: 20 watts continuous rating. Frequency Range: 350-13,000 Hz. Dispersion Angle: 110° x 60°. Impedance: 8 ohms. Dimensions: 216 x 210 x 140 mm.

PRICE	CODE
£17.49	B228



HDA.10 30 WATT PA SPEAKER

As HDA.6 but greater power handling, frequency range and size. Power Handling: 30 watts continuous rating. Frequency Range: 250-13,000 Hz. Dispersion Angle: 105°. Impedance: 8 ohms. Dimensions: 230 x 260 mm.

PRICE	CODE
£19.44	B229



HDB.12 30 WATT PA SPEAKER

Updated version of Model SC.15B. As HDB.8 but greater power handling, frequency range and size. Power Handling: 30 watts continuous rating. Frequency Range: 250-13,000 Hz. Dispersion Angle: 110° x 60°. Impedance: 8 ohms. Dimensions: 290 x 280 x 166 mm.

PRICE	CODE
£23.32	B230



HDA.6 15 WATT PA SPEAKER

The HDA.6 is just one of the new range of Horn Speakers. Built on the immense success of models like the SC.10F this new range is the logical development of a design concept that builds quality into the product. Rugged and weather-proof, all finishes are stove enamelled and cadmium plated. Power Handling: 15 watts continuous rating. Frequency Range: 350-13,000 Hz. Dispersion Angle: 115°. Impedance: 8 ohms. Dimensions: 204 x 166 mm.

PRICE	CODE
£12.96	B231

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

Celestion & Baker Loudspeakers

PLEASE STATE NOMINAL IMPEDANCE REQUIRED WHEN ORDERING.

Celestion Power Range

MODEL G12H

Power 30 watts (RMS)
 Impedance 8 or 16 ohms
 Resonance 75 Hz
 Response 40-8000 Hz
 Voice Coil Dia 44 mm
 Total Flux 180,000 (Maxwells)
 Weight 4.9 kg
 Dimensions 304 x 137 x 158 mm

PRICE	CODE
18.65	B234

MODEL G15C

Power 50 watts (RMS)
 Impedance 8 or 16 ohms
 Resonance 55 Hz
 Response 30-8000 Hz
 Voice Coil Dia 51 mm
 Total Flux 180,000 (Maxwells)
 Weight 5.65 kg
 Dimensions 381 x 159 x 165 mm

PRICE	CODE
31.25	B235

MODEL G18C

Power 100 watts (RMS)
 Impedance 8 or 16 ohms
 Resonance 35 Hz
 Response 25-5000 Hz
 Voice Coil Dia 76 mm
 Total Flux 285,000 (Maxwells)
 Weight 10 kg
 Dimensions 457 x 203 x 200 mm

PRICE	CODE
42.60	B236

MODEL MH500 50 & 100 W POWER HORNS

Impedance 15 ohms
 Voice Coil Dia 51 mm
 Magnet 1500 Gauss
 Frequency Response 500 Hz-10 Hz

ITEM	PRICE	CODE
50 w	36.25	B237
100 w	51.25	B238



B236

B235

B234

Baker Sound

'GROUP 25' 12 inch

Voice Coil Impedance 8 or 15 ohms
 Maximum Power 25 watts
 Bass resonance 55 c.p.s.
 Useful Response 30-13,000 c.p.s.
 Flux density 12,000 lines
 Voice coil 38 mm
 Overall diameter 310 mm
 Overall depth 120 mm

Fixing holes diagonal 330 mm
 Baffle aperture 280 mm
 Nett weight 2.3 kg.

PRICE	CODE
8.45	B239

'GROUP 35' 12 inch

Voice Coil Impedance 8 or 15 ohms
 Maximum Power 35 watts
 Bass resonance 55 c.p.s.
 Useful Response 30-13,000 c.p.s.
 Flux density 12,000 lines
 Voice coil 38 mm
 Overall diameter 310 mm
 Overall depth 120 mm

Fixing holes diagonal 330 mm
 Baffle aperture 280 mm
 Nett weight 2.7 kg.

PRICE	CODE
9.30	B240

GROUP 50' 15 inch

Voice Coil Impedance 15 ohms
 Maximum Power 50 watts
 Bass Resonance 45 c.p.s.
 Useful Response 30-13,000 c.p.s.
 Flux Density 15,000 lines
 Voice coil 51 mm
 Overall diameter 390 mm
 Overall depth 153 mm

Fixing holes diagonal 417 mm
 Baffle aperture 360 mm
 Nett weight 6.8 kg.

PRICE	CODE
19.55	B241



B238

B239

B240

B241

CARRIAGE/PACKING ON ALL ABOVE SPEAKERS 'C'

PLEASE STATE NOMINAL IMPEDANCE REQUIRED WHEN ORDERING.

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
 TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

FANE HEAVY DUTY LOUDSPEAKERS

8 and 15 ohm available. Please state requirements when ordering

- * Designed for General Purpose Public Address Systems.
- * Ideal for Vocal and Instrumental Groups.
- * Latest High Efficiency Anisotropic Ferrite Magnets.
- * Heavy Cast Chassis.



B

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.

Voice Coil Diameter: 25mm. Chassis Diameter: 305mm Actual
Flux Density, Gauss: 11,000
Total Flux, Maxwells: 44,000
35mm over Mounting Lugs

Mounting: 4 Holes 6mm dia.
on pitch circle 298mm.

Nominal Rating:
15 watts

Frequency Range: Baffle Hole: 280mm
40-18,000 Hz Overall Height: 111mm

Peak Power Handling: 20 watts Net Weight: 1.8 kg.
Watts RMS

Continuous: 10 Main Resonance: 40 Hz

PRICE	CODE
£7.68	B244

POP '25/2'

Fitted Tweeter Cone 12" Full Frequency Range

Voice Coil Diameter: 25mm. Chassis Diameter:
Flux Density, Gauss: 11,000 305mm Actual
Total Flux, Maxwells: 44,000
315mm over Mounting Lugs

Mounting: 4 Holes 6mm dia.
on pitch circle 298mm dia.

Nominal Rating: 30 watts
Frequency Range: Baffle Hole: 280mm
40-18,000 Hz Overall Height: 111mm

Peak Power Handling: 50 watts Nett Weight: 1.8 kg.
Watts RMS

Continuous: 25 Main Resonance: 40 Hz

PRICE	CODE
£9.50	B245

Pack/Carr on all above speakers 'B'

★ See Pages F7 & F9 for the Eagle range of speakers. ★

POP '50'

12" Bass Unit

Voice Coil Diameter: 51mm Chassis Diameter:
Flux Density, Gauss: 14,000 305mm Actual
Total Flux, Maxwells: 186,000
315mm over Mounting Lugs
Mounting: 4 Holes 6mm dia.
Frequency Range: 30-8,000 Hz
on pitch circle 298mm dia.
Baffle Hole: 280mm
Peak Power Handling: 100 watts Overall Height: 111mm
Watts RMS Net Weight: 3.1 kg.
Continuous: 50 Main Resonance: 30 Hz

PRICE	CODE
£14.50	B246

POP '60'

15" Bass Unit

Suitable for all bass instruments.

Voice Coil Diameter: 51mm Chassis Diameter:
Flux Density, Gauss: 14,000 381mm Actual
Total Flux, Maxwells: 186,000
387mm over Mounting Lugs
Mounting: 4 Holes 6mm dia.
over pitch circle 371mm dia.
Frequency Range: 25-5,000 Hz
Baffle Hole: 343mm dia.
Peak Power Handling: 120 watts Overall Height: 159mm
Watts RMS Net Weight: 9 kg.
Continuous: 60 Main Resonance: 40 Hz

PRICE	CODE
£17.62	B247

POP '100'

18" Extra Heavy Duty

Built to withstand terrific power. Conservatively rated at 100 watts.

Voice Coil Diameter: 51mm. Chassis Diameter:
Flux Density, Gauss: 14,500 457 Actual
Total Flux, Maxwells: 375,000
463mm over Mounting Lugs
Mounting: 8 Holes 8mm dia.
on pitch circle 438mm dia.
Frequency Range: 20-5,000 Hz
Baffle Hole: 420mm dia.
Peak Power Handling: 200 watts Overall Height: 181 mm
Watts RMS Net Weight: 9.9 kg.
Continuous: 100 Main Resonance: 30 Hz

PRICE	CODE
£31.87	B248

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

Goodmans

POWER RANGE LOUDSPEAKERS...

★ For professional use, where reliability has to compliment the *total* sound performance.

★ Available in 8 or 15 ohms – Please state which is required when ordering.

AUDIOM 12P

This popular "work-horse" in the range gives satisfactory performance in a wide variety of uses.

Nominal Power Rating: 50 watts
Fundamental Resonance (Typical): 85 Hz
Flux Density (Typical): 14,000 gauss
Voice Coil Diameter: (35 mm)
Impedance: 8 or 15 ohms
Overall Diameter: (311 mm)
Overall Depth: (152 mm)
Baffle Hole Diameter: (279 mm)
Fixing Holes: 4 holes (8 mm) dia.
on (298 mm) PCD.
Nett Weight: (4.8 kg.)
Suitable Sealed Enclosure Volume
(per loudspeaker): 3,000 cu.ins. (50 lts)



PRICE	CODE
£20.31	B253

AUDIOM 15P

A fifteen inch loudspeaker with twin cone which has proved very successful in discotheque speaker systems for its fine bass reproduction. It is also particularly suitable for the demanding conditions imposed by pop organ tone cabinets.

Nominal Power Rating: 50 watts
Fundamental Resonance (Typical): 56 Hz
Flux Density (Typical): 15,000 gauss
Voice Coil Diameter: (35 mm)
Impedance: 8 or 15 ohms
Overall Diameter: (383 mm)
Overall Depth: (183 mm)
Baffle Hole Diameter: (330 mm)
Fixing Holes: 8 holes (7 mm) dia.
on (365 mm) PCD
Nett Weight: (6.9 kg.)
Suitable Sealed Enclosure Volume (per
loudspeaker): 4,800 cu.ins. (80 lts.)



PRICE	CODE
£29.93	B255

AUDIOM 12P-D

The 12P-D is engineered for a range of applications where high sensitivity and a wide frequency response are required.

For high quality PA, either singly or in multiples to increase the directional characteristics, it may be used to reproduce music in a variety of conditions from discotheques to dance clubs and theatres. It gives good results when used for musical instrument amplification (organs etc.) at home or at medium powers for cabaret clubs and theatre performances.

Nominal impedance: 8 or 15 Ohms
Nominal power handling: 60 watts
Fundamental resonance: 55 Herz
Sensitivity (96dB at 1m): 0.6 watts
Recommended enclosure volume for
single unit: 40 Litres
Depth, overall: 142 mm
Diameter, Overall: 311 mm
Baffle hole diameter: 278 mm
Fixing hole diameter: 4 off 8 mm
Fixing hole centres: 298 mm (PCD)



PRICE	CODE
£23.12	B254

AUDIOM 18P

A showman's loudspeaker. It is easily able to deal with the massive response required by bass guitars and also the specialist applications in fairgrounds.

Nominal power rating: 100 watts
Fundamental Resonance (Typical): 45 Hz
Flux Density (Typical): 13,500 gauss
Voice Coil Diameter: (76 mm)
Impedance: 8 or 15 ohms
Overall Diameter: (459 mm)
Overall Depth: (210 mm)
Baffle Hole Diameter: (413 mm)
Fixing Holes: 8 holes (8 mm)
dia., (438 mm) PCD
Nett Weight: (9.3 kg.)
Suitable Sealed Enclosure Volume
(per loudspeaker): 7,000 cu.ins. (120 lts.)



PRICE	CODE
£50.62	B256

Carr/Packing on all speakers 'C'

PLEASE SEE PAGE F8 FOR A FURTHER SELECTION OF SPEAKERS IN THIS RANGE

FURTHER INFORMATION ON CABINET DIMENSIONS, IMPEDANCE MATCHING AND MEASURING CONDITIONS AVAILABLE ON REQUEST.

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. **PRICE INCLUSIVE OF V.A.T.**

SPEAKERS IN CABINETS

ALL CABINETS FINISHED IN BLACK & COMPLETELY WIRED WITH JACK SOCKETS

SINGLE SPEAKERS

GOODMANS 12p in Cabinet
12" 50 watt speaker

PRICE	CODE
£45.00	B260

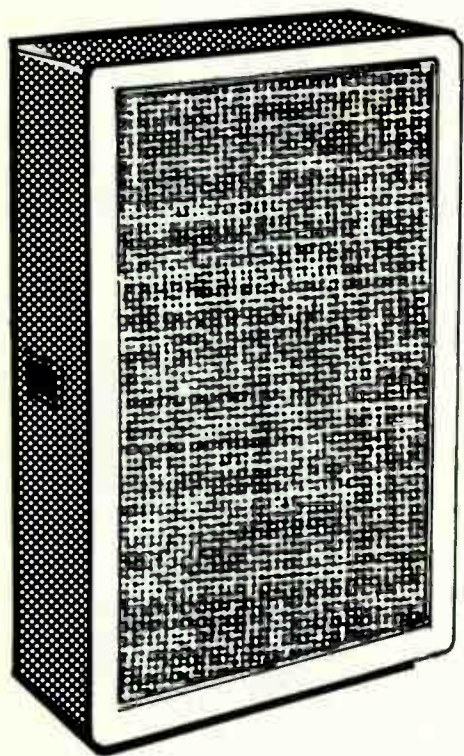
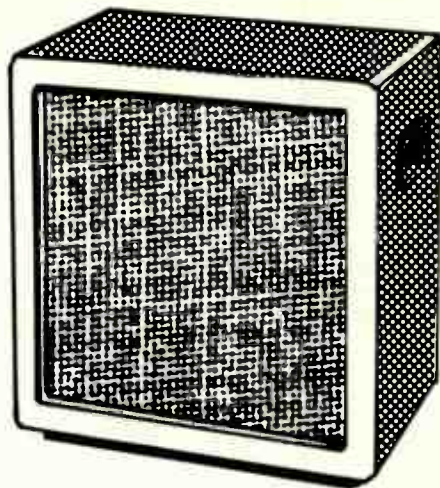
GOODMANS 15p in Cabinet
15" 50 watt speaker

PRICE	CODE
£63.75	B261

GOODMANS 18p in Cabinet
18" 100 watt speaker

PRICE	CODE
£75.00	B262

CARRIAGE/PACKING ON ABOVE 'C'



DOUBLE SPEAKERS

TWO GOODMANS 12p's in Cabinet
12" 100 watt

PRICE	CODE
£78.75	B263

TWO GOODMANS 15p's in Cabinet
15" 100 watt

PRICE	CODE
£89.37	B264

CARRIAGE/PACKING ON ABOVE 'D'

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

MV 20S 20-watt siren megaphone

The MV 20S is the largest of our range of megaphones. Heavy duty construction and 20 watts power output make this a unit for the toughest conditions. A built-in siren gives a blasting signal for any general or special alert, and a detachable microphone allows the unit to be remote operated.

Output Power: 20 watts peak. Voice Range: 0.8–1 km.
Dimensions: 380 x 230 mm. Weight: 3.6 kg.
Batteries: 8 x HP11.

PRICE	CODE
£54.43	B265

Carr/Pack 'B'



CAR 45 Mobile speaker mounting bracket

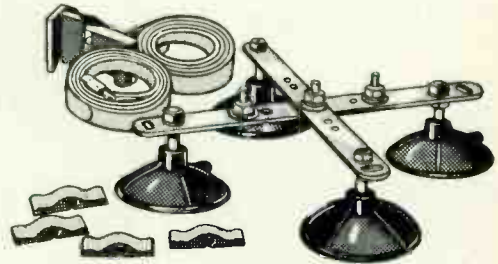
Designed to allow any horn speaker to be mounted on a vehicle without the need to drill, screw or mark the vehicle in any way. Completely weather proof. A perfect partner for any mobile PA system.

Dimensions: 270 x 270 x 4 mm.

PRICE	CODE
£7.77	B266



CARR/PACK 'B'



An HDB 12 speaker mounted on a vehicle, utilising the CAR 45 kit.

MT 10, MT 15 and MT 20 100 volt line matching transformers

A range of 100 volt line matching transformers which enable a normal 8 or 16 ohm speaker to be changed to a tapped 100 volt line system.

MT 10 Continuous Rating (Watts): 10
Taps (Watts): 0.625, 1.25, 2.5, 5 and 10.
Slotted Fixing Centres: 60 mm.

MT 15 Continuous Rating (Watts): 15.
Taps (Watts): 1.25, 2.5, 5, 10 and 15.
Slotted Fixing Centres: 62 mm.

MT 20 Continuous Rating (Watts): 20.
Taps (Watts): 2.5, 5, 10, 15 and 20.
Slotted Fixing Centres: 68 mm.

ITEM	PRICE	CODE
MT10	£2.20	B267
MT15	£2.13	B268
MT20	£2.52	B269



CARR/PACK 'B'

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

Strobe Tubes

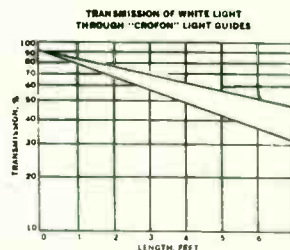
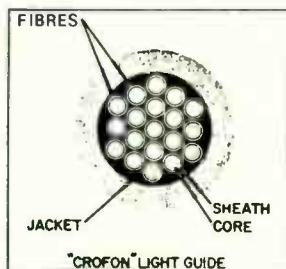
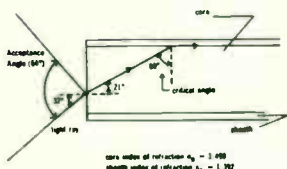
FOR USE AS REPLACEMENTS IN STROBE UNITS, CAR IGNITION TIMING LIGHTS, AND PHOTOGRAPHIC FLASHGUNS.

B

ZFT 8 15 watt
 ZFT12 40 watt
 COIL for ZFT 8

PRICE	CODE
£4.32	B320
£5.40	B321
0.65p	B322

'CROFON' Light Guides



The function of CROFON light guides is to transmit light from one point to another, just as copper wire transmits electrical energy.

CROFON light guides consist of a number of 10-mil-diameter plastic fibres, bundled randomly in a common jacket. Each fibre has a core of polymethyl methacrylate sheathed with a transparent polymer of lower refractive index. The jacket is made of Du Pont ALATHON polyethylene resin.

A basic principle of fibre optics is that light travels in a zig-zag path through the transparent core of each fibre by internal reflections from the sheathing medium. The amount of light transmitted is a function of the number of fibres in each bundle. CROFON light guides contain 16, 32, 48 or 64 such light-carrying fibres. In addition to the number of fibres, the amount of light transmitted also depends on the intensity of the light source.

In a broad sense, CROFON light guides can be used in any application where there is a need to carry light from one point to another. The economy and versatility of the light guides and optical fibre make possible exciting new design opportunities in a broad spectrum of industrial applications for such functions as sensing, signalling, controlling and styling as well as basic illumination.

CROFON light guides can be used in two broad areas of application. In remote illumination applications, such as instrument panels, dials and controls, multiple locations can be illuminated by a single light source. Light can be carried around bends and tight angles without resorting to lenses, prisms or other optical devices. CROFON light guides also permit confining lighting to very small areas. In remote monitoring, CROFON light guides permit detection of the detection of the status of light sources or the position of objects such as remote optical counting of items on a conveyor. CROFON light guides are easily combined with electronic devices such as solid-state light sources and photodetectors to make reliable and compact systems for the computer, electronics, and aerospace industries.

CUTTING: CROFON light guides may be simply cut to length to provide a light conductor suitable for many applications. A sharp razor blade, a guillotine-type cutter, and a rotary knife have been used successfully. Properly cut ends typically give 70-80% of the light transmission of well-polished ends.

POLISHING: Where designs require better light transmission than can be obtained with cut ends, the ends may be polished either with abrasives or by the use of a special lacquer.

TYPE 0010 MONO FILAMENT 0.01" diam.
 PRICE per 100 metre reel

PRICE	CODE
£5.94	B323
£1.08	B324

Carr/Pack 'B'

SPRAY

Multi-Crofon 15 mm diameter. MARES TAIL for display purposes.

PRICE	CODE
£11.34	B325

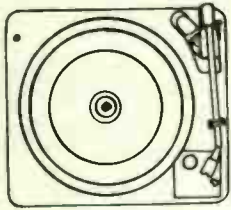
Carr/Pack 'B'

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
 TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V. A. T.

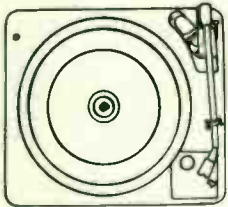
**DISCOTHEQUES
LIGHT & SOUND**

**SOUNDS LIKE
HENRY'S**

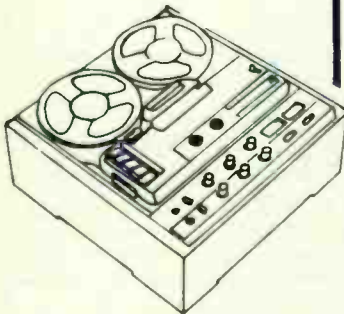
**PUBLIC ADDRESS, PAGING
AND BACKGROUND SYSTEMS**



TURNTABLE 1

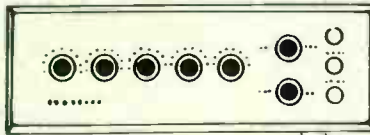


TURNTABLE 2



TAPE UNIT

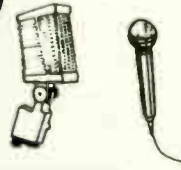
HIGH POWER AMPLIFIER/MIXER
10 WATTS TO 400 WATTS



ALSO STEREO
SYSTEMS NOW
AVAILABLE FOR
DISCO USE



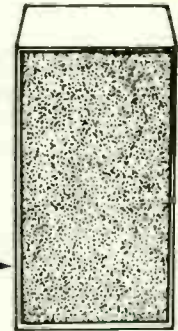
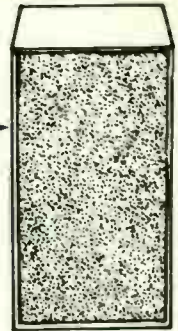
REVERBERATION
SYSTEMS



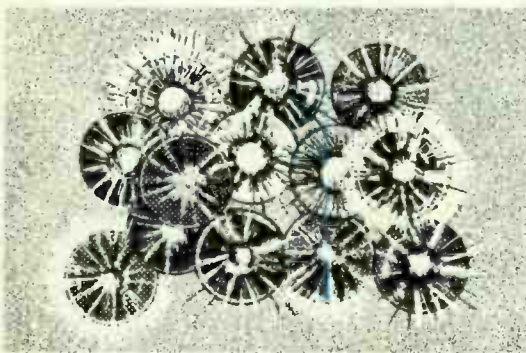
MICROPHONES



PSYCHEDELIC
LIGHTING



SINGLE OR
MULTIPLE
SPEAKER
SYSTEMS



PORTABLE
DISCOTHEQUES

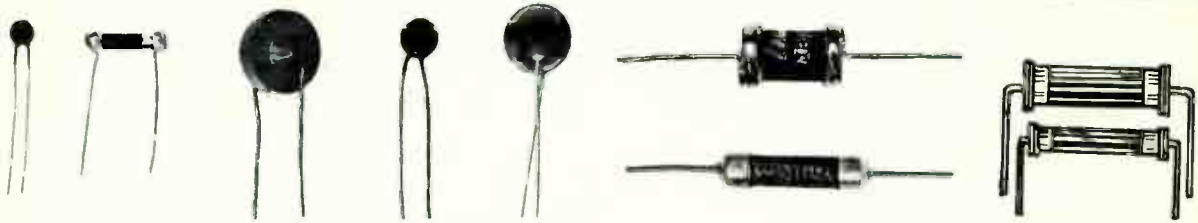
LIQUID WHEEL LIGHT
PATTERN PROJECTORS

DEMONSTRATIONS AND ADVICE—JUST ASK!

THERMISTORS, Rod and Plate Types

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.

SIEMENS K273
 TEMPERATURE SENSING
 THERMISTOR IN BRASS
 CASING. 0-100°C.
 1.25 K OHM AT 60°C
 Price 65p



C

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. All Rod types.

Code	Dimensions mm	INITIAL RESISTANCE (ohms)			Emax. Volts (20°C)	Max. Operating Current Amperes	Price each
		0°C	20°C	50°C			
CZ1, CZ1A	32 x 8	8,300	3,800	1,400	25	0.3	19p
CZ2	22 x 6	12,500	5,500	1,850	30	0.3	15p
CZ3	8 x 5	3,500	1,500	560	13.5	0.2	19p
CZ4, CZ4A	37 x 11	1,700	800	320	14.7	0.8	20p
CZ6	37 x 10	6,000	3,000	1,120	23	0.45	19p
CZ8A	20 x 8	3,700	1,600	620	15.6	0.3	19p
CZ9A	20 x 8	800	350	130	7.8	1.0	23p
CZ10	8 x 2	26,000	11,000	4,000	19.5	0.075	19p
CZ11	32 x 10	280	140	65	5.8	1.5	23p
CZ12 CZ12A }	37 x 11	240	120	53	6.4	2.5	23p
CA13A	22 x 10	850	400	160	9.0	0.8	19p
CZ14	28 x 5	470,000	167,000	46,000	125.0	0.05	19p
CZ19	37 x 11	1,700	800	320	14.7	0.8	19p

BEAD TYPES

Miniature glass encapsulated thermistors for amplitude control and timing purposes. Also for temperature measurement. (Note: B24 has an internal heater element).



TYPE	Res. at 20°C (ohms)	Min Resis. (ohms)	SIZES	PRICE
GL16 (TH-B11)	1 Meg	170	10mm x	£1.43
GL23 (TH-B12)	2 K	115	2.5mm diam.	£1.43
A15B (TH-B15)	100 K	320	25.4mm x 4mm diam.	£1.15
R53 (TH-B18)	5 K	100	38mm x 9.5mm diam.	£2.00

TRANSISTOR BIAS

Used to keep circuits at known level.

S90 3mm dia. x 1½mm. 90 ohms at 20°C. To be used with 100 ohm Black resistor in parallel. PRICE 12p

CS120 5mm dia. x 2mm. 120 ohms at 20°C. 65 ohms at 50°C (Code brown) PRICE 12p each

TYPE No.	Rod (R) Plate (P)	Resistance at 25°C	Max. Dissipation	Resistance at max. diss.	Max. Temp.	Diam. (mm)	Length or thickness (mm)	Approx. Current at max. diss.	PRICE
VA1055S	(R)	15 K	0.6 watts	540 ohms	150°C	3.7	12	33mA	19p
VA1056S	(R)	47K	0.6 "	1000 "	150°C	3.7	12	23mA	19p
VA1066S	(R)	4.7 K	0.6 "	200 "	150°C	3.7	12	55mA	20p
VA1098 (=VA1046)	(P)	1.5 K	0.6 "	78.5 "	150°C	5.5	5	85 mA	24p
VA1038	(P)	1.3 K	1 "	6.9 "	120°C	9.4	5	380 mA	19p
VA1039	(P)	500 ohm	1 "	5.4 "	120°C	9.4	5	430 mA	19p
VA1040	(P)	130 ohm	1 "	2.6 "	120°C	9.4	5	620 mA	19p
VA1077	(P)	33.5 "	1 "	0.8 "	120°C	21 x 9 mm rect.		1.2 amp	23p
VA1100	(P)	15 "	1 "	0.7 "	120°C	9.4	5	1.2 "	23p
VA1033	(P)	4.0 "	1 "	0.25 "	120°C	9.4	5	2.0 "	19p

* Plate types colour coded as per 25°C resistance. Rod types colour coded or marked.

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
 TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

CARR/PACK
A

RESISTORS



RESISTANCE COLOUR CODE MACHINE PRICE 20p



'HI-STAB' 5% CARBON 1/8-1/4 WATT SUB-MINIATURE

OHMS	100	1 K	10K	100K	1 meg
10	100	1 K	10K	100K	1 meg
12	120	1.2K	12K	120K	1.5 meg
15	150	1.5K	15K	150K	2.2 meg
18	180	1.8K	18K	180K	
22	220	2.2K	22K	220K	
27	270	2.7K	27K	270K	
33	330	3.3K	33K	330K	
39	390	3.9K	39K	390K	
47	470	4.7K	47K	470K	
56	560	5.6K	56K	560K	
68	680	6.8K	68K	680K	
82	820	8.2K	82K	820K	

Size 8 x 1.5 mm

PRICE EACH 2p

'HI-STAB' CARBON 5% MINIATURE 1/2-1 WATT

OHMS	100	1 K	10K	100K	1 meg
10	100	1 K	10K	100K	1 meg
12	120	1.2K	12K	120K	1.2 meg
15	150	1.5K	15K	150K	1.8 meg
18	180	1.8K	18K	180K	2.2 meg
22	220	2.2K	22K	220K	
27	270	2.7K	27K	270K	
33	330	3.3K	33K	330K	
39	390	3.9K	39K	390K	
47	470	4.7K	47K	470K	Size:
56	560	5.6K	56K	560K	0.5x3mm
68	680	6.8K	68K	680K	diameter
82	820	8.2K	82K		

PRICE EACH 3p

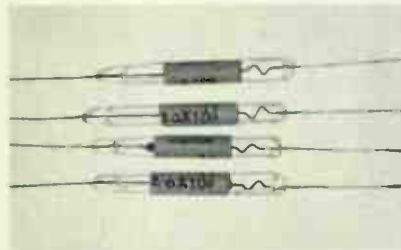
2% Metal Oxide Resistors. Price each 4 1/2p

WIREWOUND RESISTORS

In stock at time of going to press—other values available for callers

0.33 ohm	3 watt	3 ohm	5 watt	8 ohm	9 watt	47 ohm	4 watt	820 ohm	2 watt	PRICES
0.5 "	1 "	3 "	10 "	10 "	4 "	91 "	4 "	910 "	1.5 "	1 watt,
0.5 "	2 "	3.3 "	5 "	10 "	6 "	100 "	2 "	1K "	3 "	1 1/2 watt
0.5 "	5 "	3.9 "	4 "	10 "	10 "	100 "	5 "	1K "	5 "	10p each
1 "	1 "	4 "	4 "	12 "	6 "	110 "	2 "	1K "	10 "	2 and 3 watt
1 "	2 "	4.7 "	4 "	15 "	11 "	180 "	2 "	1.2K "	5 "	9p each
1 "	5 "	4.7 "	5 "	16 "	6 "	220 "	4 "	2.2K "	3 "	4 and 5 watt
1.5 "	3 "	5 "	5 "	18 "	4 "	500 "	9 "	4.7K "	25 "	10p each
1.5 "	10 "	5.6 "	4 "	18 "	5 "	560 "	4 "	5K "	9 "	6 and over
2 "	3 "	6 "	5 "	20 "	2 "	680 "	5 "	6.8K "	5 "	13p each
2 "	5 "	6.8 "	3 "	22 "	4 "	680 "	6 "	10K "	4 "	
2 "	10 "	6.8 "	4 "	33 "	4 "	750 "	4 "	12K "	9 "	
								15K "	4 "	

Also Available. E12 Range. Min. 3w Wirewound From 0.22Ω to 5K. Price Each 12p



MORGANITE MEGISTORS

Tested and aged high value resistors enclosed in glass. Supplied only of one value to protect the megistors, as these should only be handled by their leads and not the glass. Packed in carton of four, Size 44mm x 5 1/2mm diameter.

VALUES	2.0 x 10 ⁹ ± 10% (2,000,000,000 ohms)	Four for £3.00
	2.0 x 10 ¹⁰ ± 10% (20,000,000,000 ohms)	Four for £3.00
	2.0 x 10 ¹¹ ± 10% (200,000,000,000 ohms)	Four for £3.00
	2.4 x 10 ⁷ ± 2% (24,000,000 ohms)	Four for £3.00

CLOSE TOLERANCE RESISTORS 1/2/1 WATT 1%

OHMS	4.3	12	51	160	470	1K	2.7K	7.5K	22K	82K	240K	800K
4.3	12	51	160	470	1K	2.7K	7.5K	22K	82K	240K	800K	
4.7	15	56	180	560	1.2K	3K	8.2K	24K	91K	270K	820K	
5	16	60	200	600	1.3K	3.3K	9.1K	27K	100K	300K	860K	
5.1	18	62	220	620	1.4K	3.6K	10K	30K	110K	330K	1.5 meg	
5.6	20	64	230	670	1.5K	3.9K	11K	33K	120K	390K	3 meg	
6	30	68	240	680	1.6K	4.7K	12K	36K	130K	400K		
6.2	33	75	270	750	1.8K	5K	13K	39K	140K	430K		
6.8	36	82	300	800	2K	5.1K	14K	43K	150K	470K		PRICE
7.5	39	120	330	820	2.1K	5.6K	15K	56K	152K	510K		13p each
8.2	39.7	130	360		2.2K	6K	16K	60K	160K	560K		Callers Only
10	43	140	390		2.4K	6.2K	18K	62K	180K	600K		
11	47	150	400		2.5K	6.8K	20K	75K	200K	680K		

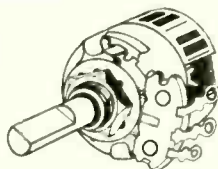
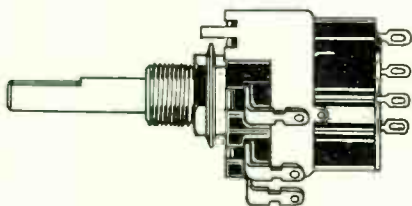
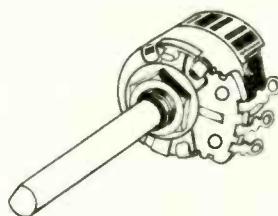
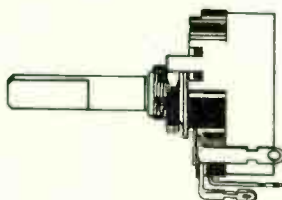
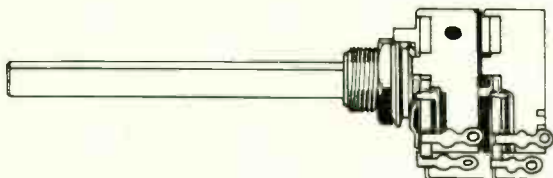
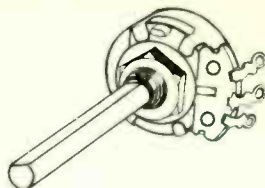
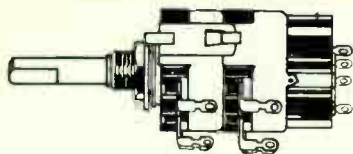
WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

Carr/Pack A

CARBON TRACK CONTROLS

SINGLE AND GANGED



'TEXAN' PC Types

SINGLE	5K LIN	26p
GANGED	100K LIN	60p
"	10K LOG	60p

C

LOG LESS SWITCH	5K, 10K, 25K, 50K, 100K, 250K, 470K, 500K ¼ Meg (250K), ½ Meg (500K), 1 Meg, 2 Meg	PRICE EACH 26p
LOG WITH SWITCH	5K, 10K, 25K, 50K, 100K, 250K, 470K, 500K 1 Meg, 2 Meg	PRICE EACH 34p
LINEAR (Less Switch)	2K, 5K, 10K, 20K, 25K, 50K, 100K, 250K, 500K, 1 Meg, 2 Meg	PRICE EACH 26p
DUAL GANGED LOG LESS SWITCH	10K+10K, 25K+25K, 50K+50K, 100K+100K 250K+250K, 500K+500K, 1Meg+1Meg	PRICE EACH 60p
DUAL GANGED LINEAR (Less Switch)	5K+5K, 10K+10K, 20K+20K, 25K+25K, 50K+50K 100K+100K	PRICE EACH 60p
DUAL GANGED SPECIAL TYPES	5K LOG+5K Reverse Log, 10K Log+ 10K Antilog, (or Reverse log) 10K Log + 10K Log with 40% taps	PRICE EACH 65p
DUAL GANGED WITH SWITCH	10K Log+10K Log, 20K Lin + 20K Lin, 25K Log+25K Reverse log, 100K Log + 100K Reverse Log	PRICE EACH 65p
(NOTE—APPEARANCE MAY VARY DUE TO DIFFERENT MANUFACTURERS SUPPLIES)		Carr/Pack A

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. **PRICE INCLUSIVE OF V.A.T.**

VARIABLE RESISTORS

WIREWOUND CONTROLS



25, 100, 200, 500, 1K, 2K, 2½K, 3K, 5K, 10K, 20K, 25K, 30K, 50K, and 100Kohms. 10, 20, 150 ohms
Price 40p each

(All types with 6.5mm spindle)

Note: Values available and appearance may vary due to stock availability.

WIREWOUND 'PRESET' TYPES



Moulded Spindle
15 ohms, 33 ohms, 100 ohms.

Price 40p each

Other types
10 ohms, 25 ohms, 200 ohms, 750 ohms, 5K, 10K, 25K, 30K.

Price 55p each

Note: Values available and appearance may vary due to stock availability.

R.3020

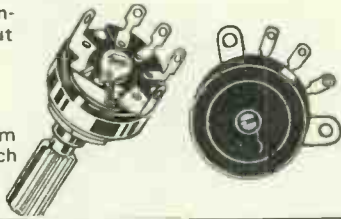
Miniature 5K ohm volume control with switch, spindle nut and washer.

Price 30p each

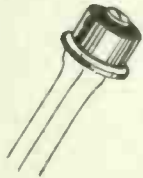
K.416

Miniature edgewise 5K ohm volume control, with switch and knob.

Price 55p pair



MINIATURE WIREWOUND PRESETS



T05 Transistor can size
3-wire leads. Linear track

5K, 10K ohms, 20K, 50 ohms.

Price 35p each

R.I.L. PRECISION PRESET TYPE 400/1



Values
100 ohms
1000 ohms

Overall size: 15 x 15 x 8mm
Approx. 18 turns

Price 25p each

PLESSEY MP DEALER CARBON PRESETS

Linear Tracks



Max. Diam. 14.5mm
Overall Height 11mm



Price 25p each

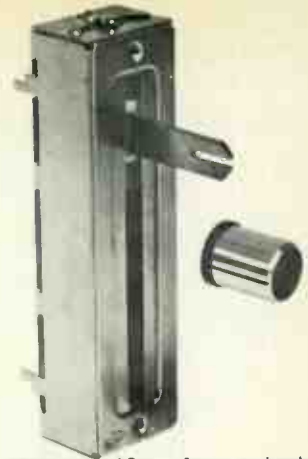
330	ohms
560	ohms
1 K	ohms
2.2K	ohms
3.3K	ohms
4.7K	ohms
10 K	ohms
100K	ohms
470K	ohms

SLIDE CARBON CONTROLS

- Single Track and Ganged

- Stroke 60mm (2³/₈")

See Page 209 for 30mm and 45mm)



Single Track Size 88mm x 15.6mm x 18mm front to back. Fixing holes 80mm pitch. Control Spindle 25mm from track. 30mm with knob.

Ganged Size 92.6mm x 23.1mm x 22mm front to back. Other details as single track. 30mm with knob.

• SINGLE TRACK

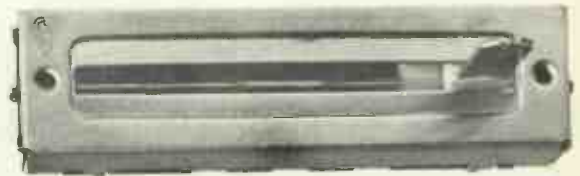
5K Lin
5K Log
10K Log
25K Log
50K Log
10K Lin
25K Lin
50K Lin
100K Lin
200/250K Log
200/250K Lin
500K Log
500K Lin
1 Meg Log
1 Meg Lin

• GANGED

10K + 10K Lin
10K + 10K Log
25K + 25K Log
25K + 25K Lin
50K + 50K Log
50K + 50K Lin
100K + 100K Lin
100K + 100K Log
200/250K + 200/250K Lin
200/250K + 200/250K Log

Price with Knob
54p each

Ganged Price
with Knob 75p each



SUB-MINIATURE CARBON PRESETS



Vertical 3-tag mountings, linear track height 11mm, width 9mm, 3mm thick
50, 100, 250 ohm 470 ohm
500 ohm, 1K, 2½K, 5K, 10K, 25K, 50K, 100K, 250K, 500K, 1 Meg.

PRICE 8p each

PLESSEY MP DEALER CARBON PRESETS

Linear Tracks



Max. Diam. 14.5mm
Overall Height 11mm



Price 25p each

330	ohms
560	ohms
1 K	ohms
2.2K	ohms
3.3K	ohms
4.7K	ohms
10 K	ohms
100K	ohms
470K	ohms

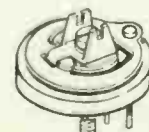
SUB-MINIATURE CARBON TRACK PRESET CONTROLS

All Values 20p each
(note values available depends upon stock position)

500 ohm

1K, 3K, 10K, 25K, 50K,
100K, 250K, 500K,
1 Meg. 2 Meg.

Carr/Pack A



'G' TYPE

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT. TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

BORG MICROPOT — PRECISION PRESETS

MODEL 990T and 990 PC
LOW NOISE



VALUES AVAILABLE FROM STOCK
25 ohms, 50 ohms, 100 ohms, 250 ohms, 400 ohms, 500 ohms.
2K, 2½K, 10K, 25K and 50K ohms.

PRICE 40p each

LESS THAN HALF MANUFACTURERS NORMAL SELLING PRICE
BRAND NEW, FULLY GUARANTEED

C

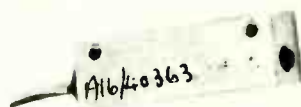
TYPE 1

Available with the following values of resistance:
20, 25, 50, 100, 200, 250, 390 and 500 ohms,
1K, 2½K, 5K, 10K, 20K and 50K ohm.

Price 40p each



(Note that above single types may be available in
Tag or Flying Lead form. Availability will depend
upon stocks held at the time of order).



TYPE 2

Available in the following values: 200 ohms Price 40p



TYPE 3

Available in the following values:
100 ohm, 1K ohm, 5K ohm.

Price 40p each



TYPE 4

PAINTON/RELIANCE moulded plastic.
250 ohm, 1K, 5K and 50K.

Price 40p each.

TYPE 11

Twin potentiometer as illustrated at right. Specifications
as for single types. Available in 50K + 50K ohm only
Size 1¼ x ¼ x ¾ inches.

50K ohm + 50K ohm

Price 80p



CARR/PACKING, ALL ITEMS 'A'

STOCKS ARE CONSTANTLY CHANGING. SO PLEASE ADVISE IF YOUR REQUIREMENTS ARE NOT LISTED

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

ELECTROLYTIC CAPACITORS

MINIATURE - STANDARD LOW AND HIGH VOLTAGE WIRE LEADS AND CANS

DALY - SPRAGUE - MULLARD - TCC - PLESSEY - CCL - MALLORY - ERIE - WIMA - DUBILIER

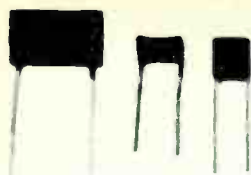
WIRE LEAD TYPES								
0.1 mfd	15 volt	4p	10 mfd	50 volt	11p	160 mfd	64 volt	16p
0.1 "	50 "	4p	10 "	64 "	11p	200 "	6 "	10p
0.5 "	50 "	5p	16 "	25 "	11p	220 "	18/25 "	11p
1 "	12 "	8p	16 "	450 "	28p	250 "	25 "	13p
1 "	18 "	8p	25 "	6.4 "	8p	250 "	40 "	16p
1 "	40 "	9p	25 "	12 "	8p	320 "	10 "	10p
1 "	350 "	16p	25 "	25 "	8p	400 "	10 "	11p
1.5 "	25 "	8p	25 "	50 "	9p	400 "	16/25 "	12p
1.6 "	64 "	10p	32 "	30 "	10p	470 "	25 "	16p
2 "	18 "	8p	32 "	40 "	10p	470 "	50 "	19p
2 "	25 "	8p	32 "	64 "	10p	500 "	18/25 "	19p
2 "	30 "	9p	32 "	450 "	37p	500 "	50 "	21p
2 "	350 "	20p	40 "	6.4 "	8p	640 "	6.4 "	14p
2.2 "	16 "	8p	40 "	25 "	9p	640 "	16 "	17p
2.2 "	64 "	11p	40 "	40 "	9p	640 "	25 "	20p
3.2 "	40 "	9p	40 "	40 "	9p	800 "	4 "	14p
4 "	6 "	5p	47 "	6.4 "	8p	800 "	25 "	20p
4 "	12 "	5p	47 "	12 "	8p	1000 "	6 "	18p
4 "	15 "	6p	50 "	18/25 "	9p	1000 "	16 "	15p
4 "	25 "	8p	50 "	40 "	9p	1000 "	25 "	32p
4 "	40 "	11p	50 "	50 "	9p	1000 "	50 "	36p
4.7 "	64 "	11p	50 "	100 "	12p	1000 "	63 "	50p
4 "	350 "	17p	64 "	25 "	11p	1000 "	75 "	57p
5 "	25 "	8p	64 "	40 "	11p	1500 "	30 "	28p
5 "	64 "	10p	64 "	64 "	13p	1500 "	50 "	40p
6.4 "	6.4 "	8p	80 "	6.4 "	9p	2000 "	25 "	43p
6.4 "	25 "	8p	80 "	64 "	13p	2000 "	50 "	64p
6.4 "	40 "	9p	100 "	3 "	8p	2200 "	25 "	40p
6.4 "	64 "	11p	100 "	6.4 "	11p	2500 "	30 "	45p
8 "	12 "	6p	100 "	15 "	11p	2500 "	50 "	63p
8 "	18 "	8p	100 "	25 "	11p	3000 "	18 "	46p
8 "	25 "	9p	100 "	40 "	11p	3200 "	4 "	34p
8 "	40 "	11p	100 "	50 "	11p	5000 "	25 "	74p
8 "	450 "	25p	100 "	64 "	12p	5000 "	30 "	63p
10 "	12 "	8p	125 "	16 "	9p	5000 "	50 "	87p
10 "	16 "	9p	125 "	25 "	10p	8+8 "	450 "	32p
10 "	25 "	9p	160 "	40 "	11p	16+16 "	450 "	40p
10 "	35 "	9p	160 "	25 "	11p	32+32 "	350 "	46p
				40 "	13p	32+32 "	450 "	50p

CAN TYPES								
80 mfd	250 volt	20p	1250 mfd	25 volt	40p	2500 mfd	64 volt	1.02p
100 "	450 "	43p	1250 "	40 "	60p	3200 "	16 "	40p
150 "	30 "	14p	1500 "	35 "	63p	3150 "	40 "	92p
500 "	40 "	25p	1500 "	75 "	67p	3300 "	64 "	89p
500 "	50 "	25p	1600 "	64 "	67p	3500 "	50 "	97p
500 "	100 "	51p	2000 "	16 "	60p	4000 "	25 "	63p
750 "	50 "	28p	2000 "	25 "	43p	4000 "	40 "	92p
800 "	25 "	25p	2000 "	50 "	69p	4000 "	50 "	97p
800 "	40 "	46p	2000 "	100 "	90p	4700 "	40 "	92p
1000 "	6 "	14p	2500 "	9 "	25p	4700 "	70 "	1.38p
1000 "	30 "	31p	2500 "	25 "	55p	5000 "	15 "	43p
1000 "	40 "	44p	2500 "	40 "	63p	5000 "	25 "	86p
1250 "	16 "	33p	2500 "	50 "	63p	5000 "	50 "	1.32p
						7100 "	40 "	1.61p
						10000 "	16 "	86p
						10000 "	25 "	1.03p

CARR/PACK A

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

MINIATURE CAPACITORS



SILVER MICA



DISC CERAMICS

TUBULAR CERAMICS, POLYSTYRENE AND SILVER MICAS

.5 pF	10 pF	47 pF	250 pF	1200 pF	6800 pF
1 pF	12 pF	50 pF	270 pF	1500 pF	8200 pF
1.5 pF	15 pF	56 pF	300 pF	1800 pF	10,000 pF
2 pF	18 pF	68 pF	330 pF	2000 pF	15,000 pF
2.2 pF	20 pF	75 pF	390 pF	2200 pF	20,000 pF
2.7 pF	22 pF	82 pF	470 pF	2700 pF	100,000 pF
3.3 pF	25 pF	100 pF	500 pF	3000 pF	150,000 pF
3.9 pF	27 pF	120 pF	560 pF	3300 pF	220,000 pF
4.7 pF	30 pF	150 pF	680 pF	3900 pF	
5.6 pF	33 pF	180 pF	750 pF	4700 pF	
6.8 pF	35 pF	200 pF	820 pF	5000 pF	
8.2 pF	39 pF	220 pF	1000 pF	5600 pF	

PRICES:

TUBULAR CERAMICS (350 volt)	Below 5000 pf	3p each
	5000 pf and above	4p each
POLYSTYRENE (125 volt)	Below 1000 pf	4p each
	1000 pf up to 8200 pf	6p each
	10,000 pf (0.01) and above	7p each
DISC CERAMICS (200 volt)	All values	4p each
SILVER MICA	1 or 2% up to 1000 pf	7p each
	1 or 2% 1000 pf up to 2200 pf	12p each
	1 or 2% 2500 pf up to 8200 pf	20p each



TUBULAR CERAMICS

POLYSTYRENE



100 VOLT MINIATURE MYLAR CAPACITORS

0.001 (1000 pf)	3p	0.01	4p	0.04	5p	0.1	5p
0.002 (2000 pf)	3p	0.02	4p	0.05	5p	0.2	7p
0.005 (5000 pf)	3p	0.03	4p	0.068	5p	0.22	7p
						0.47	8p

MINIATURE AND STANDARD CAPACITORS

ALL TYPES OF ELECTROLYTICS

LARGEST RANGE AND STOCKS IN UK.

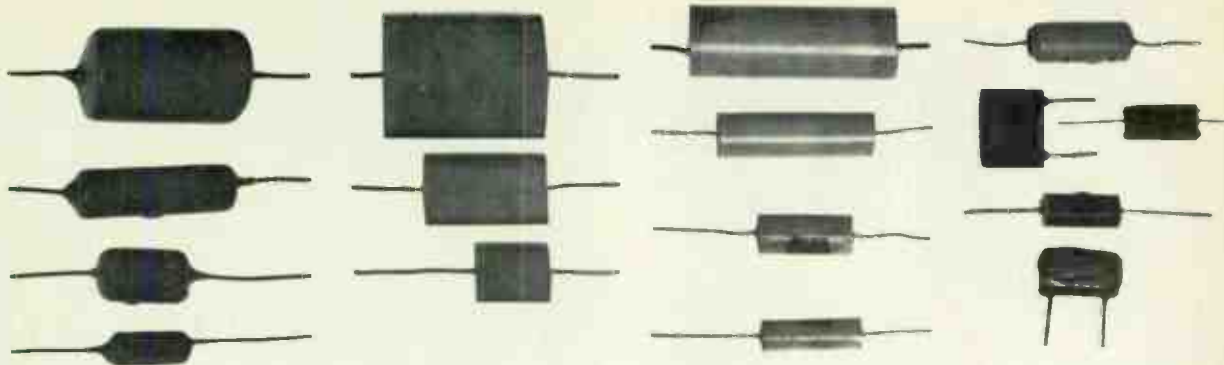
MINIATURE DISC CERAMICS



MOST VALUES IN STOCK
From 2.2 pf up to 250,000 pf
ALL VALUES 4p each. (0.25 mfd).

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT. TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

CAPACITORS - POLYESTER and FOIL



C

★125-160 Volt 10% Range (Mullard, Lenco, Wima, Hunts, etc.)

0.01 mfd, 0.012 mfd, 0.015 mfd, 0.022 mfd, 0.033 mfd, 0.047 mfd, 0.068 mfd. PRICE 4p each

0.1 mfd	6p ea.	0.15 mfd, 0.22 mfd	6½p
0.12 mfd 20%	4p ..	0.33 mfd	8½p
0.15 mfd 20%	4p ..	0.47 mfd	10p
0.18 mfd 20%	4p ..	0.68 mfd	11p
		1.0 mfd	14p

★250 Volt 10% Range (Mullard, TCC, Dubilier, etc.)

0.01 mfd, 0.015 mfd, 0.022 mfd, 0.033 mfd, 0.047 mfd, 0.068 mfd. PRICE 5p each

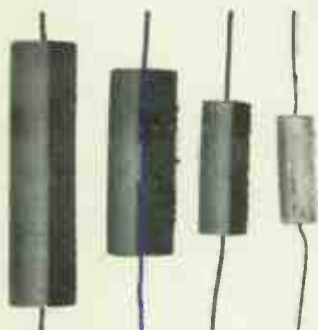
0.1 mfd	Price	6p
0.15 mfd 0.22 mfd	..	6½p
0.33 mfd	..	9p
0.47 mfd	..	10p
0.68 mfd	..	11p
1.0 mfd	..	14p
1.5 mfd	..	16p
2.2 mfd	..	19p

★400 Volt 10% Range (TMC, Mullard, Dubilier, etc.)

0.001, 0.0015, 0.0022, 0.0033, 0.0047, 0.0068, 0.01, 0.015 mfd. PRICE 4p each

0.022 4p	0.033 4p	0.047 5p	0.068 5p	0.1 6p	0.15 7p	0.22 9p	0.33 11p	0.47 13p
----------	----------	----------	----------	--------	---------	---------	----------	----------

★DUBILIER POLYESTER

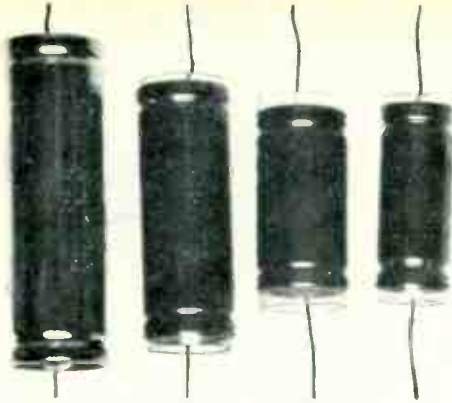


.001	1500v	6p	.22	600v	14p	.002	1500v	10p
.0022	1500v	6p	.22	1000v	25p	.003	1500v	10p
.01	600v	6p	.47	400v	18p	.0033	1500v	10p
.01	1000v	10p	.47	1000v	36p			
.022	600v	8p	.02	350v	6p			
.022	1000v	12p	.03	350v	6p			
.033	600v	9p	.015	400v	6p			
.047	600v	9p	.015	600v	8p			
.047	1000v	14p	.033	400v	6p			
.1	600v	12p	.004	600v	6p			
.1	1000v	15p	.068	600v	8p			

NOTE DUE TO SUPPLY VARIATIONS SOME DIFFERENCE IN SIZE AND VOLTAGE MAY BE NECESSARY TO ENABLE YOUR ORDER TO BE FULFILLED WITHOUT DELAY.

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

STANDARD PAPER TYPE CAPACITORS



TMC 25% RANGE

Value	Voltage	PRICE	Price
0.1 mfd	150 volt		10p
0.1 "	350 "	"	12p
0.15 "	150 "	"	11p
0.25 "	250 "	"	12p
0.25 "	350 "	"	13p
0.5 "	350 "	"	14p
1.0 "	150 "	"	14p
1.0 "	250 "	"	17p
1.0 "	350 "	"	18p
2.0 "	250 "	"	20p

BEAD TYPE RESIN DIPPED TANTALUM CAPACITORS (Polarised)



Value	Voltage	Price
0.1 mfd	35 volt	
0.22 "	35 "	
0.47 "		
1.00 "	35 "	
2. "	25 "	
2.2 "	35 "	
3 "	15 "	
4.7 "	10 "	
4.7 "	35 "	
6.8 "	20 "	
7 "	20 "	
10 "	16 "	
22 "	15 "	
30 "	3 "	
33 "	25 "	
47 "	3 "	
47 "	20 "	
100 "	3 "	

.01 - 1 mfd
PRICE 16p each

2.2 - 100 mfd
PRICE 18p each

CASTENETS



PLESSEY CASTENET

(Also see facing page for miniature types)

Size 3/8" diam. x 1/8" height

50 mfd	70 volt
140 mfd	30 volt
220 mfd	15 volt

PRICE 40p each

SOLID TANTALUM

S.T.C. - KEMET - PLESSEY

.5 mfd	20v	34 mfd	15v
.75 "	20v	50 "	15v
1.1 "	20v	47 "	20v
1.5 "	30v	150 "	15v
2.3 "	50v	220 "	6v
4.7 "	35v	330 "	6v
5 "	10v		
7.5 "	20v		
8.2 "	20v		
10 "	35v		
11 "	15v		
15 "	20v		
16 "	10v		

SPECIAL OFFER

LIMITED QUANTITY

28p each

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

CARR/PACK A

TRIMMER CAPACITORS



U1



C1



C2



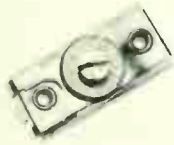
C3



C4



C5



D1, D2, D3



D4, D5, D6



D7



D8



D9



D10, D11



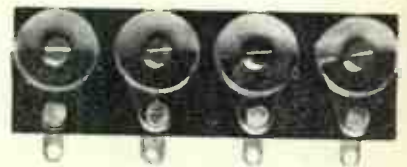
D12



D13



D14



D15



A1/A11



A2



A3



A4

VHF/UHF SERIES

U1 0.5 to 3pf 10p

CERAMIC SERIES

C1 3 to 3½pf 15p
 C2 3 to 6pf 15p
 C3 6 to 25pf 15p
 C4 10 to 60pf 15p
 C5 Twin 6 to 30pf 15p

MICA DIELECTRIC SERIES

D 1 5 to 60pf 13p
 D 2 10 to 80pf 13p
 D 3 30 to 140pf 13p
 D 4 30 to 250pf 13p
 D 5 120 to 750pf 20p
 D 6 300 to 1000pf 25p
 D 7 2 to 25pf 17p
 D 8 10 to 80pf 12p
 D 9 5 to 50pf 10p
 D10 60+60pf Twin 15p
 D11 120+120pf Twin 20p
 D13 60+60pf Twin Low Loss VHF 12p
 D14 50+50pf Twin 10p

AIRSPACED

A1 10pf 25p
 A2 20pf 25p
 A11 30pf 25p
 A3 10 x 10pf butterfly type 25p
 A4 Philips etc. 30pf 20p
 A5 " " 1½-16pf 20p

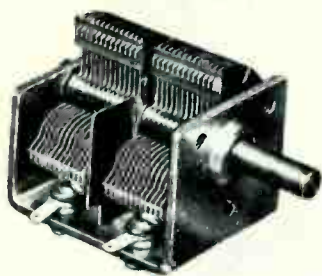
PLASTIC DIELECTRIC

D12 60+60pf Twin 10p
 D15 Four 2-30pf Trimmers 12p

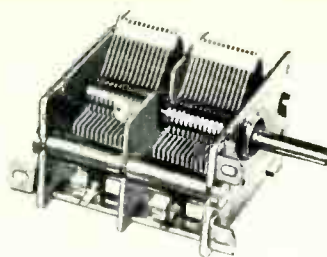
WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT. TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

Carr/Pack A

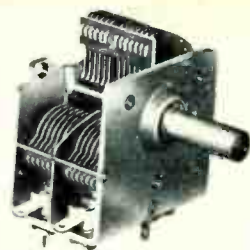
TUNING CAPACITORS



TYPE O



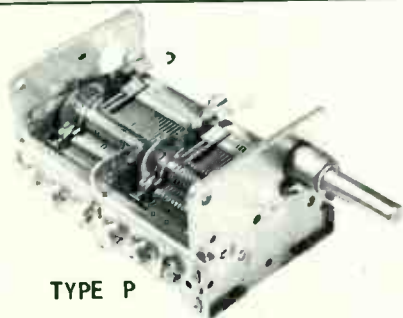
E2 GANG



TYPE 00

AIRSPACED – ALL TYPES WITH STANDARD 6.36mm DIAMETER SPINDLE

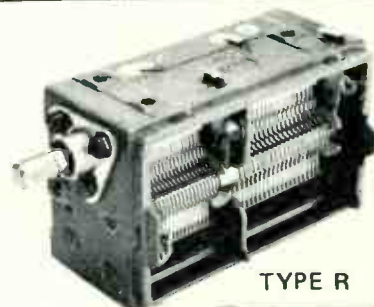
15pf + 15pf	35 x 35 x 25mm	For FM with slow motion tuning	Type 00	Price	£2.20
15pf + 15pf	35 x 35 x 25mm	For FM (no slow drive)	Type 00	Price	£2.00
176pf + 176pf	35 x 35 x 25mm	with screen	Type 00	Price	£2.20
208pf + 176pf	35 x 35 x 25mm	with screen and trimmers slow motion drive	Type 00	Price	£2.50
208pf + 176pf	35 x 35 x 25mm	screen and trimmers	Type 00	Price	£2.36
208pf + 176pf	35 x 35 x 25mm	with screen and slow motion	Type 00	Price	£2.45
365pf single	35 x 35 x 25mm		Type 00	Price	£1.80
410pf single	35 x 35 x 25mm		Type 00	Price	£1.80
500pf single	AIRSPACED		Type 00	Price	£1.80
365pf + 365pf	44.5 x 35 x 44.5mm	with screen	Type O	Price	£2.16
500pf + 500pf	48 x 41 x 57mm	with screen	Type E2	Price	£2.16
500pf + 500pf	44.5 x 73 x 67mm	with slow motion drive	Type E2	Price	£2.25
208pf + 208pf + 176pf	44.5 x 44.5 x 35mm	screen trimmers	Type O	Price	£2.80
500pf + 500pf + 500pf	48 x 57 x 89mm	with screen	Type E3	Price	£2.00
500pf + 500pf + 15pf + 15pf	76 x 57 x 44.5mm	AM/FM Gang geared drive	Type P	Price	£2.40
310pf + 310pf + 310pf	THREE GANG	33 x 35 x 65mm long geared drive	Type S	Price	£2.90
310pf + 310pf	TWIN GANG	43 x 70 x 68mm	Type E2	Price	£3.70
325pf + 275pf	50 x 41 x 48mm	with geared drive	Type Q	Price	95p
400pf + 450pf	83 x 50 x 38mm	with geared drive	Type R	Price	95p



TYPE P



TYPE Q



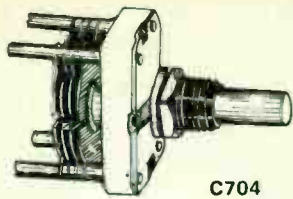
TYPE R

AIRSPACED TUNING CAPACITORS

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT. TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

CARR/PACK A

SHORT WAVE TUNERS AND TRIMMER CAPACITORS



C704

Jackson C808 25 x 25pf split stator

PRICE £1.90

Jackson C704 25 x 25pf differential

PRICE £1.45

JACKSON C804 TYPE AIRSPACED TUNERS

5pf, 10pf, 15pf, 25pf

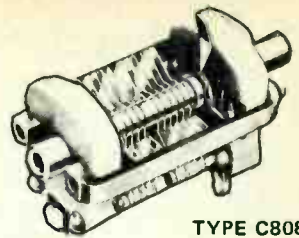
PRICE £1.15 each

50pf, 100pf

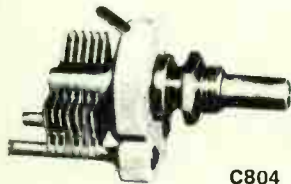
PRICE £1.30 each

150pf

PRICE £1.64 each



TYPE C808



C804

AIRSPACED PRESET TUNERS TYPE C.801

Maximum Capacity 20pf

PRICE £1.20

" " 50pf

PRICE £1.20

" " 75pf

PRICE £1.20

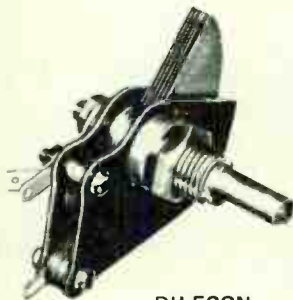


TYPE C.801

BUTTERFLY PRE-SET TYPE C713

17+ 17 pf, 25+ 25 pf, 38+ 38 pf

PRICE 75p each



DILECON

SOLID DIELECTRIC TUNERS—DILECON

0.0001 (100pf) 88p

0.0003 (300pf) £1.00

0.0005 (500pf) £1.20

Appearance may vary slightly according to stocks.

MINIATURE TUNING CAPACITORS

HIGH 'Q' MINIATURE TUNING CAPACITORS

Plastic Dielectric PRICE 75p each

Overall size 25 x 25 x 25mm
Spindle tapped 6BA. 500pf.

250pf + 250pf 6.3mm spindle 75p



MINIATURE AIRSPACED TUNER

165pf + 70pf with trimmers, as illustrated.

Size 29 x 32 x 22mm

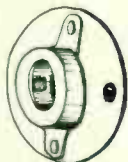
PRICE 70p



SHAFT ADAPTORS—COUPLERS—REDUCTION DRIVES (SEE SEPARATE SECTION FOR VERNIER DRIVES, DIALS AND ASSEMBLIES)



FLEXIBLE INSULATED COUPLER



6.3mm to 3.15mm SHAFT ADAPTOR

ALL TYPES FOR 6.3mm DIAM. STANDARD SHAFTS UNLESS STATED.

6:1 reduction ball drive

PRICE 78p

36:1 reduction ball drive

PRICE 85p

Spindle couplers

PRICE 25p

32mm spindle extension

PRICE 25p

Eddystone insulated flexible coupler

PRICE 35p

Sub-miniature insulated

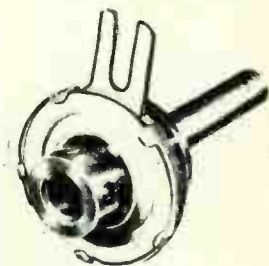
flexible coupler for 3.15mm shafts

PRICE 20p

6.3mm spindle to 3.15mm

spindle adaptor insulated coupler

PRICE 30p



BALL DRIVE

COUPLER



EXTENSION



SUB-MINIATURE COUPLER

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

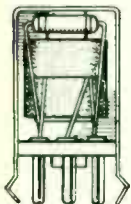
C & P A

DENCO TRANSISTOR RECEIVER COMPONENTS

For Printed-Circuit Board or Chassis Mounting.

- IFT.13 Miniature Single Tuned 470kc/s I.F. Transformer

PRICE 74p each.



These transformers are wound in ferrite pot-cores with an adjustable core for tuning. The aluminium screening can measures 13.5mm square x 17.5mm high and is provided with two fixing clips. Nominal frequency: 470kc/s. Q=110 (IFT13)

- IFT.14 Miniature Single Tuned 465–470kc/s Last I.F. Transformer.

Aluminium screening can measures 13.5mm square x 17.5mm high. Nominal frequency: 465 to 470kc/s. Q=130 (Suitable also for use as a BFO Coil)

PRICE 74p each.

- IFT.16/1.6 Miniature Single Tuned I.F. Transformer. 1.6 Mc/s Nominal IF frequency:

A miniature 1.6mc/s I.F. Transformer complete with capacitor and adjustable ferrite-core and enclosed in an aluminium screening can measuring 13.5mm square x 17.5mm high with fixing clips. Nominal frequency: 1.6mc/s.

PRICE 69p each.

- IFT.17/1.6 Miniature Single Tuned 1.6mc/s Last I.F. Transformer.

Aluminium screening can measures 13.5mm square x 17.5mm high. Nominal frequency: 1.6mc/s.

PRICE 69p each.

- IFT.18/465 Double Tuned I.F. Transformer, 465–470kc/s I.F. Frequency

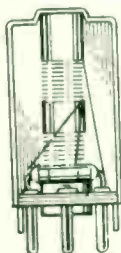
Aluminium screening can measures 13.5mm square x 38mm high. (use IFT 14 as last I.F.)

PRICE 85p each.

- IFT.18/1.6 Double Tuned 1.6mc/s IFT. Size as above. 1.6mc/s nominal frequency.

(Final I.F. use IFT17/1.6—see above) 1

PRICE 85p each.



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 22mm high x 13.5mm 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 or single transformer at -6db is approx. 250kc/s. Unloaded 'Q' of winding 70.

PRICE 80p each.

- Ratio Discriminator Transformer, RDT.2. A sub-miniature 10.7mc/s transformer for use in ratio discriminator type circuits. Secondary winding is of bifilar construction. Dimensions as IFT. 15. Peak separation approx. 220kc/s.

PRICE 92p each.

DENCO VALVE COMPONENTS

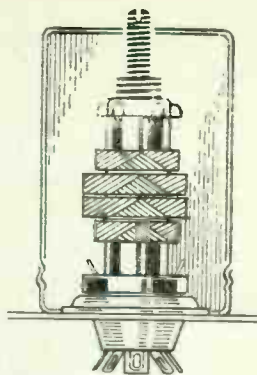
DENCO RDT.1. Ratio Discriminator Transformer 10.7mc/s. 25mm square x 59mm bifilar wound for valve circuits. PRICE 92p

DENCO PDT.1. Phase Discriminator 10.7mc/s. PRICE 85p

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

CARR/PACK
A

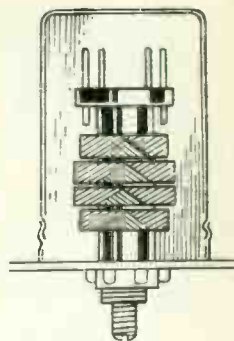
DENCO MINIATURE DUAL PURPOSE COILS



Plug-in Application (B9A)

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. (Order range number and colour).

Complete range for Superhet or Straight receivers.



Chassis Mounting Application

BLUE:	Signal grid coil with aerial coupling winding	RANGES 1, 2, 3, 4 & 5	Price 72p each
YELLOW:	Signal grid coil with inter-valve coupling winding	1, 2, 3, 4 & 5	Price 72p each
GREEN:	Grid coil with reaction and coupling windings (6-pin).	1, 2, 3, 4 & 5	Price 75p each
RED:	Superhet oscillator for 465 kc/s IF	1, 2, 3, 4 & 5	Price 72p each

(ORDER RANGE NUMBER AND COLOUR)

★ Complete technical information on the coils and full instructions for their use is given in TECHNICAL BULLETIN DTB.4 25p

★ The following table gives an indication of the coverage obtained with Miniature Dual Purpose Coils using the recommended 300/310pf tuning condenser.

Range	LONG WAVE 1	MEDIUM WAVE 2	MARINE 3	SHORT WAVE 4	SHORT WAVE 5
Mc/s.	.150/.400	.515/1.545	1.67/5.3	5/15	10.5/31.5
Metres	2000/750	580/194	180/57	60/20	28/9.5



REPANCO GENERAL PURPOSE COILS



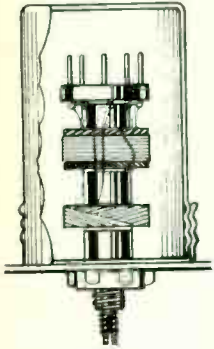
Coils wound on low loss polystyrene formers.

Type No.	Application	Waveband		Tuner pf	Price
		Metres	Kc/s		
DRX1	Crystal Set	200/500 1000/2000	1500/600 300/150	500	55p
DRR2	High gain dual range with reaction for valve sets Quality Crystal Feeder Units	200/550 1000/2000	1500/600 300/150	500	78p

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT. TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

Carr/Pack A

DENCO TRANSISTOR TUNING COILS



- * EACH COIL CAN BE USED FOR CHASSIS MOUNTING OR PLUGGING INTO A STANDARD NOVAL (B9A) VALVEHOLDER.
- * Coils for transistor superhets and converters, with or without an R.F. stage and using 465 kc/s or 1.6 mc/s I.F.
- * 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 – complete with connection diagram.
- * For use with OC169/OC170/OC171 or similar transistors.

PRICE

IT BLUE & IT YELLOW
80p each

ALL OTHERS 73p each

(Please quote type number from the table below).



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.

* Complete technical information on the coils and full instructions for their use is given in technical Bulletin DTB. 4.

(QUOTE TYPE NUMBER AND COLOUR WHEN ORDERING)

Type No.	Colour Code.	DESCRIPTION	WAVEBAND		IF Frequency.	Circuit and Sizes.
			Metres.	Mc/s.		
1T	Blue	Aerial (LW)	2000/750	0.15/0.4	—	Sizes 1½" x 5/8" diam. supplied with cans and instructions. Single hole chassis mounting or B9A socket.
1T	Yellow	RF Coil (LW)	"	"	—	
1T	Red	Oscillator (LW)	"	"	465/470 Kc/s.	
1T	White	Oscillator (LW)	"	"	1.6Mc/s.	
2T	Blue	Aerial (MW)	580/194	0.515/1.545	—	
2T	Yellow	RF Coil (MW)	"	"	—	
2T	Red	Oscillator (MW)	"	"	465/470 Kc/s.	
2T	White	Oscillator (MW)	"	"	1.6Mc/s.	
3T	Blue	Aerial (SW)	180/57	1.67/5.3	—	
3T	Yellow	RF Coil (SW)	"	"	—	
3T	Red	Oscillator (SW)	"	"	465/470 Kc/s.	
3T	White	Oscillator (SW)	"	"	1.6Mc/s.	
4T	Blue	Aerial (SW)	60/20	5/15	—	
4T	Yellow	RF Coil (SW)	"	"	—	
4T	Red	Oscillator (SW)	"	"	465/470 Kc/s.	
4T	White	Oscillator (SW)	"	"	1.6Mc/s.	
5T	Blue	Aerial (SW)	28/9.5	10.5/31.5	—	
5T	Yellow	RF Coil (SW)	"	"	—	
5T	Red	Oscillator (SW)	"	"	465/470 Kc/s.	
5T	White	Oscillator (SW)	"	"	1.6Mc/s.	
					465/470 Kc/s.	

The above table gives the coverage obtained with Transistor Coils using the recommended 300/310pF Tuning Condenser

CARR/PACK A

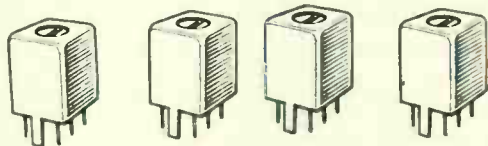
WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V. A. T.

TRANSISOR SUPERHET COIL SETS

465 - 470 KHz

TYPE 'A7'

SET OF (4) 7mm OSC AND
3 IFTS FOR 465 - 470 KHz **PRICE 80p**



465 - 470 KHz

TYPE 'EW'

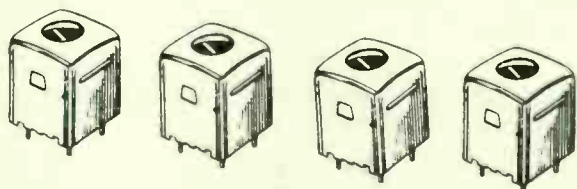
SET OF (4) WEYMOUTH TYPE
P50 COILS 1st, 2nd and 3rd IFT PLUS OSC.



PRICE £1.50

465 - 470 KHz

TYPE 'C10' SET OF (4) 10mm COILS
FOR 465 - 470 KHz



PRICE 80p

10.7 MHz

TYPE 14 SET OF (4) WEYMOUTH F.M.
IFTs. 10.7 MHz (3) T41/3K
(1) T41/4R2 RATIO DETECTOR



PRICE £2.25

455 KHz

TYPE 'C14'

SET OF (4) 10mm IFTS FOR 455 KHz.
1 EACH 040 & 041 USED AS DOUBLE
TUNED 1st IFT (2) 042 FOR 2nd &
FINAL IFTS.

PRICE 80p

10.7 MHz

TYPE 13A

COMPLETE SET OF COILS & IFTS
AS USED IN 'HENRYS' F.M. TUNER
KIT.

PRICE £3.75

465 - 470 KHz

TYPE '15'

PRICE £1.95

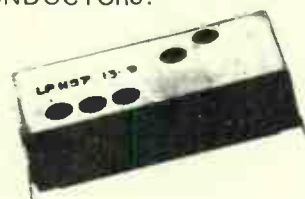
SET OF (3) WEYMOUTH IFTS DOUBLE TUNED
465/470 KHz 1st & 2nd IFTS. FINAL IFT
SINGLE TUNED WITH BUILT IN DETECTOR.



465 KHz **MULLARD MODULE LP1157**

A COMPLETE A.M. IF ASSEMBLY WITH
OSC, 1st, 2nd & 3rd IFTS. PLUS ALL
RESISTORS, CAPACITORS AND
SEMICONDUCTORS.

**PRICE
£2.25**



PRICE £2.25

COILS AND FILTERS

CARR/PACK 'A' ALL ITEMS

SET OF 3 COILS FOR MC1304 DECODER I.C. Price 74p

DENCO I.F. TRANSFORMER IFT.II & DISCRIMINATORS 465 kc/s, 1.6 & 10.7 mc/s For Valve Circuits (See separate section for Transistor Types).



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: 0 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 48mm x 21mm square.

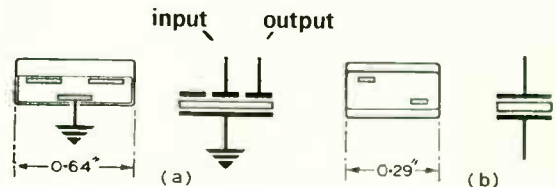
★ IFT 11/465	PRICE 86p ea.	★ RDT1 10.7mc/s Ratio Discriminator	
★ IFT 11/1.6	PRICE 86p ea.		PRICE 92p
★ IFT 11/10.7	PRICE 86p ea.	★ PDT1 10.7mc/s Pulse Discriminator	
★ IFT 11/465 CT Sec	PRICE 96p ea.		PRICE 85p

TRANSFILTERS

Used in place of the IFT (using Type TO or D) and emitter by pass capacitor (using Type TF-01D) in Transistor Superhet Circuits. Circuits can use transfilters throughout or a combination of these with conventional IFTS.

TO-02D Ceramic Piezo electric 4-terminal filter. 470 kc/s \pm 1 kc/s. Input capacity 480pf, Output 2650pf; Input Impedance 4K-15K. Output 680 ohms to 3K. Stability within 0.2% for 10 years. \pm 0.1% from -20°C to +60°C. Operation at Anti-Resonance. Insertion loss 3dB.

TF-01D Ceramic filter to replace emitter By-pass capacitor. Capacity 500pf. Impedance at 470kc/s, less than 15 ohms. Stability as TO-02D above. 2 volts max. Nominal frequency 470 kc/s \pm 2 kc/s.

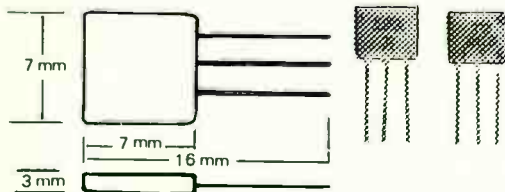


TRANSFILTER DETAILS (a) type TO (b) type TF



TF-01D PRICE 78p

TO-02D PRICE 78p



Murata SFE

10.7 m/cs I.F. FILTERS

-6dB BANDWIDTH 300 KHz

-45dB BANDWIDTH 400 KHz

Per Pair 50p

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

MINIATURE COIL FORMERS



TYPE 1



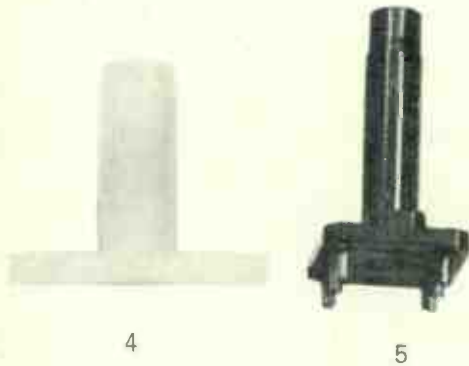
2

MINIATURE COIL FORMERS

Type	Former Diameter	Overall Length	Mounting	Core Type	Price
1	5 mm	16 mm	PC	1s or 1f	11p
2	7 mm (1/4")	21 mm (7/8")	2 x 6BA	2s	10p
4	10 mm	29mm (7/8")	2 x 6BA	4s	10p
5	8 mm	34mm (1 3/8")	PC or 2x6BA	5s	15p

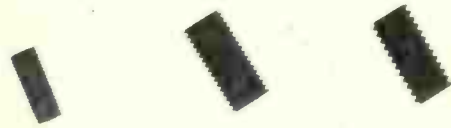
Dust Cores 1s, 2s, 3s, 4s, 5s PRICE 5p each.
 Ferrite Cores Available for former type 1 only. Ref. 1F. PRICE 6p

QUOTE TYPE NUMBER



4

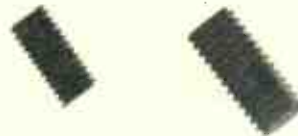
5



TYPE 1s

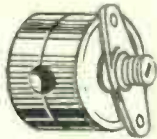
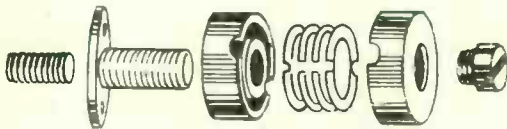
3s

2s



5s

4s



10 D/WR ADJUSTABLE ASSEMBLY
 Fixing by 2 x 6BA. Max. diameter 22mm
 Overall length 25mm. For use in range 100 Kc/s to 12 Mc/s. Supplied complete as illustrated.

10 D/WR
 PRICE 37p



MCA/100 MINIATURE COIL ASSEMBLY

For all applications. Supplied with one Ferrite Core, suitable up to 100 Mc/s.

Can Size: 18 x 14 x 14 mm.

Former: 5 mm dia. x 14 mm.

Termination to 6 pins. Can accommodate 2 cores for double tuned applications



MCA/100

PRICE 25p

(Extra cores. Type 1F PRICE 6p)

FERRITE RINGS



FX1593.
 12.7mm O.A. diameter
 x 3.2 mm high.
 43.6 turns for 1 mH.

PRICE 30p

For pulse and wide band transformers up to 20mc/s

ALSO IN STOCK

ANTI-PARASTIC BEADS 5mm x 4mm DIAMETER WITH 2mm HOLE 30p per doz.
 DUST IRON CHOKE CORES—AXIAL WIRELEADS 11 x 3mm DIAM. 6p

300 to 75 ohms BALUN (wound ferrite) for VHF aerial matching

25p ea

SEE SEPARATE SECTION FOR FERRITE CORE ASSEMBLIES

CARR/PACK
A

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
 TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

FERRITE AERIALS 100% BEST GRADE FERITE



C

TYPE	WAVEBAND	TUNER	SIZE (mm)	DETAILS	CIRCUIT	PRICE
TSL 1	MW	250/300 pf	70 x 19	Slab with Secondary	With Aerial	23p
MLT	MW/LW	165 pf	146x9.5 diam.		As MW/LW Tuner	63p
RA2W	MW/LW	208 pf	152x11 ..	With Car Aerial Coil	Weyrad	86p
RTC5	MW/LW	208 pf	127 x 9.5	With Car Coil		40p
RTC6	MW/LW	365 pf	152 x 9.5			51p
	MW	365 pf	84 x 19 x 3	With Coupling Coils		40p



FERRITE RODS

101mm Length	8mm diameter	16p	152mm Length	9.5mm diameter	27p
101mm ..	9.5mm ..	21p	203mm ..	8mm ..	21p
127mm ..	8mm ..	21p	203mm ..	9.5mm ..	27p
89mm ..	6.4mm ..	21p	152mm ..	8mm ..	21p
Slab 152 x 12.7 x	mm	27p			

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. **PRICE INCLUSIVE OF V. A. T.**

CARR/PACK
A

CHOKES. R.F.

HIGH 'Q' AUDIO-RF-SW-VHF CHOKES



CH1, 2, 5



TV1, 2, 3



CH3, 4



RFC 8



QC

RFC (CH5)	1.5mH	} 15.9mm Long Ferrite Core Chokes. (Max. allowable current about 25mA, Maximum voltage about 100v DC).	28p
CH1	2.5mH		29p
CH2	5mH		31p
CH3	7.5mH		32p
CH4	10mH		33p
CH5 (RFC)	1.5mH		28p
CH6	5 micro Henry 19mm Long		24p

TV1	1 Amp 55 microHenry	} General Purpose SW and SCR & Triac Supressor Chokes.	10p
TV2	2 Amp 56 microHenry		13p
TV3	3 Amp 84 microHenry		17p
HRC	Radio Control and SW Choke.		10p
QC	100 microHenry and adjustable ferrite choke.		
RFC5	2.5mH 100mA Choke. 20 ohms 2/60mc/s		80p
RFC7A	19mH 60mA Choke 135 ohms 2/60mc/s		85p
RFC8	5μH 100mA Choke 0.5 ohms 20mc/s		50p
RFC9 A	2.6mH 250mA Choke 9.3 ohms 1.7/60mc/s		85p
Bulgin	250mA Transmitting Choke		50p
P100	100mH Ferrite Pot Core 14mm Diam x 8mm		48p

Core	11mm x 3mm diam. Dust Iron Choke Cores	6p
Beads	Anti-Parasitic 5mm x 4mm diam. Hole 2mm	30p per doz



RFC 5

P100



QC1



CHOKE CORE

CARR/PACK
A



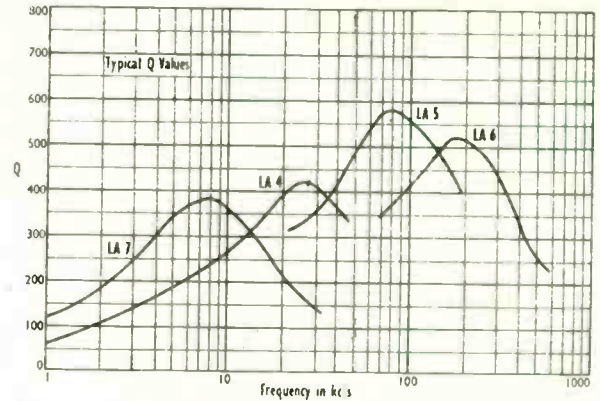
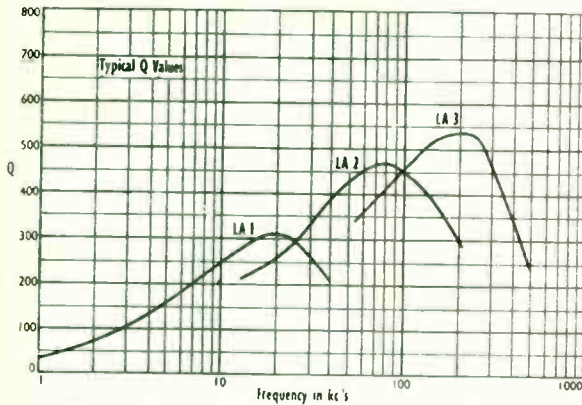
WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

POT CORES

★ MULLARD FERRITE POT CORES
(NOTE: AVAILABILITY UNCERTAIN)



Supplied complete with former and clamps



C

LA1 Size 30 x 30 x 19mm For use up to 30 kc/s. Effective permeability 110. Maximum 'Q' at 25 kc/s is 325. Number of turns for 1mH are 52.
PRICE £1.50

LA2 Size 30 x 30 x 19mm For use up to 100 kc/s. Effective permeability 60. Maximum 'Q' at 80 kc/s is 475. Number of turns for 1mH are 65.
PRICE £1.50

LA3 Size 30 x 30 x 19mm For use up to 500 kc/s. Maximum 'Q' 525 at 200 kc/s. Maximum permeability is 40. 85 turns for 1mH.
PRICE £1.50

LA4 Size 38 x 38 x 22mm For use up to 30 kc/s. Effective permeability 60. Maximum 'Q' at 25 kc/s is 425. Number of turns for 1mH are 54.
PRICE £1.50

LA6 Size 38 x 38 x 22mm For use up to 500 kc/s. Effective permeability 20. Number of turns for 1mH are 92. Maximum 'Q' is 525 at 200 kc/s.
PRICE £1.50

LA12 Size
63 mm Dia overall
42.5 mm high
Dimensions include fixings.
£2.50



WOUND FERRITE POT CORES

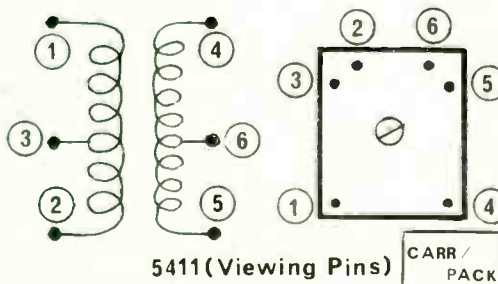
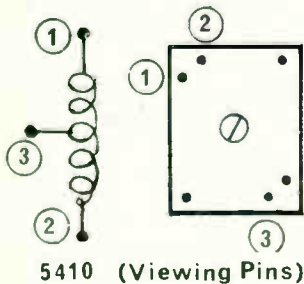
STEREO DECODER COILS



POT CORES FOR STEREO DECODER

Type 5410 – 19Kc/s FM Stereo Transistor Decoder Coil.
Wound to Mullard Specifications (Code Brown). **PRICE £1.75**

Type 5411 – 38 Kc/s FM Stereo Transistor Decoder Coil
to Mullard Specification. (Code White). **PRICE £1.75**



● **COMPLETE KIT OF PARTS FOR A 6-TRANSISTOR STEREO MULTI-PLEX DECODER WITH PRINTED CIRCUIT.**
PRICE

● **THESE CORES ALSO USED IN 'A STEREO DECODER' BY F.C. JUDD PW DEC 1969.**
Reprints: Ref.no.45A Price 7p.

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR PACKING CODE REFER TO PAGE 2 OF CATALOGUE. **PRICE INCLUSIVE OF V.A.T.**

POT CORES

FERRITE POT CORES ADJUSTABLE POT CORES (VINKORS)



Overall size 28.6 x 19mm diameter*

Single hole fixing with tag plate.

Complete with bobbin and core giving $\pm 7\%$ variation.

LA2503 * For use up to 100 Kc/s
Effective permeability 160.
Maximum 'Q' 350 at 30 Kc/s. 97p
Number of turns for 1mH are 52.

LA2504 * For use up to 100 Kc/s.
Effective permeability 100. 97p
Maximum 'Q' is 300 at 35 Kc/s.
Number of turns for 1mH are 66.

LA2505 * For use up to 200 Kc/s.
Effective permeability 63. £1.12
Maximum 'Q' at 200 Kc/s is 400.
Number of turns for 1mH are 84.

FERRITE POT CORES

4200/N30 14mm diameter x 8mm. 23.8 turns for 1mH up to 1mc/s. 37p
2100/T26 14mm diameter x 8mm. 47.5 turns for 1mH up to 1mc/s. 47p
160/N22 18mm diameter x 14mm high. For use up to 10mc/s.
86.5 effective permeability. 0.3 air gap. 52p
62½ turns per 1mH.
250/N22 23mm diameter x 17mm high. For use up to 10 Kc/s.
80.5 effective permeability 0.43mm air gap. 92p
40 turns per 1mH. Supplied with adjuster and
mounting bracket. Ideal replacement for Mullard LA7.

MINIATURE POT CORES

For use up to 1 mc/s.



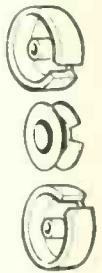
FX1636
19mm. dia. x 12.7mm
high with bobbin
34.8 turns for 1mH. 60p



FX2236
14mm. dia. x 12.7mm
high with bobbin
24.3 turns for 1mH. 52p



FX1011
12.7mm. dia. x 8mm.
high with bobbin
32 turns for 1mH. 46p



C

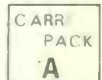
LA2230	PC Fixing	£1.85
LA1226/A6	18mm dia. x 11mm high. Complete with former, and adjuster.	47p
LA1229/B6	14mm dia. x 9mm high. Complete with former and adjuster.	37p

LA2513* VINKOR £1.05

LA2300 Vinkor assembly complete with housing. 7-280kc/s. Frequency range. Effective permeability 160. 52.5 turns per 1mH. PRICE £1.17

ALL POT CORES SUPPLIED WITH FORMER.

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.



ROTARY SWITCHES



TYPE G

ROTARY WAFER SWITCHES FOR EVERY APPLICATION

Fitted standard 1/4" diameter spindles. All types make before break unless stated. Maximum 50mA at 300 volt or 300mA at 50 volt. (Non reactive loads).



TYPE A and B

A	1 pole 2 way	Butterfly type	34p
B	2 pole 2 way	or as 'C'	40p
C	2 pole 4 way		40p
D	2 pole 6 way		40p
E	3 pole 4 way	Single Wafers	40p
F1	4 pole 3 way		40p
G	4 pole 4 way (Double sided Wafer)		57p
L	1 pole 12 way (Single Wafer)		40p
T	Midget enclosed 4 pole 3 way (TEXAN)		40p
V	6 pole 2 way		40p

C



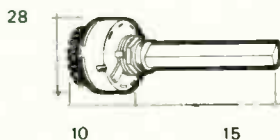
TYPES C to F and L



TYPE C to F and L
Plastic Spindle
According to stocks.

'MIDGET' WAFER (wavechange) SWITCHES

Single bank wafer type. Suitable for switching 100mA at 250V a.c. or 150V d.c. in non-reactive loads. 'Make-before-break' contracts.



PRICE 55p each

- 1 Pole adjustable 1 — 12 way each pole
- 2 Pole adjustable 1 — 6 way each pole
- 3 Pole adjustable 1 — 4 way each pole
- 4 Pole adjustable 1 — 3 way each pole

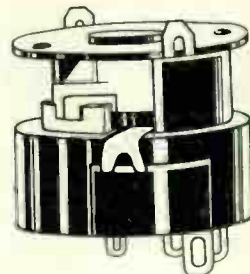
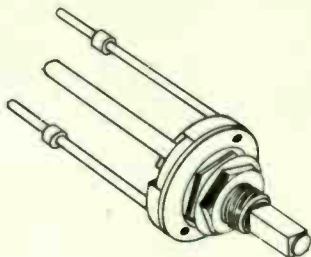
CARR/PACK A

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

ASSEMBLE YOUR OWN SWITCHES

Available as 'Miniature' and 'Standard'

PLEASE
STATE
CLEARLY
THE
TYPE
ORDERED



MINIATURE 'MAKA-SWITCH' (Shafting Assembly) 94p each
MIN. MAKA SW.

Long-life detent mechanism, life expectancy 100,000 operations. Accommodates 6 Wafers or 5 Wafers and Mains Switch. Indexing, 30°. Adjustable rotation limit stop.

Mounting bush 10mm Dia.; Control spindle 6mm Dia. 13mm. Spindle for mounting wafers 39mm; L. (overall) 79mm Dia. 1.08"

MINIATURE SPACERS 22p per 10
MIN. SPACERS

For use where wide separation of wafers is required. Must also be used with our Screens.

Dimensions: L. 35cm

MINIATURE SCREENS 5p each
MIN. SCREENS

To mount between wafers for screening.

MINIATURE WAFERS 57p each

Glass filled diallyl phthalate stators, acetal rotors and silver-plated contacts. Will switch 50mA, 300V a.c./d.c. or 300mA, 50V a.c./d.c. non-reactive.

Dimensions (excluding tags): Dia. 25.4mm W. 7mm

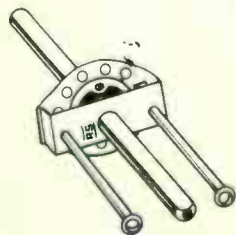
Break before Make: M-B WAFER (+ No. Poles + No. Ways)
1 POLE 12-WAY 2 POLE 6-WAY
3 POLE 4-WAY 4 POLE 3-WAY
6 POLE 2-WAY

Make before Break: M-M WAFER (+ No. Poles + No. Ways)
1 POLE 11-WAY 2 POLE 5-WAY

MAINS SW-A 46p each
A.D.P. Switch to mount on above assemblies, rated 250 V a.c. 2A.

Dimensions: Dia. 22mm D. 19mm

STANDARD SWITCH ASSEMBLIES will take up to 18 wafers.



STANDARD 'MAKA-SWITCH' (Shafting Assembly) (TYPE +) MAKA-SWITCH
Comprises basic control unit for supporting 'wafers'. Positive double ball 'click' action.

Standard Spindle on which wafers are mounted has L. 56mm. Overall L. 133mm. Dia. 38mm. WT: 3 oz. Control Spindle L. 101mm, Dia. 6mm 69p Price

STANDARD 'SPACERS' SPACERS (+ TYPE)
For separating 'wafers'.

Short (S)	Dimensions: L. 4mm Dia. 4.3mm	(Pack of 12)	PRICE
Medium (M)	Dimensions: L. 12.5mm Dia. 4.3mm	(Pack of 12)	25p
Long (L)	Dimensions: L. 25mm Dia. 4.3mm	(Pack of 12)	Per Pack

STANDARD SCREENS. Elliptical screens to mount between wafers. 5p Price

STANDARD 'WAFERS'. WAFERS (+ No. Poles + No. Ways)
Switch 'wafers' to fit above. Robust low-loss moulded constructions with contacts enclosed for maximum protection. Suitable for switching 50 mA at 300 V or 300 mA at 50V in non-reactive loads.

Dimensions: Dia. 28.5mm W.O. 4.8mm

Break before Make: 1 POLE 12-WAY 2 POLE 6-WAY
3 POLE 4-WAY 4 POLE 3-WAY

Make before Break: 1 POLE 10-WAY 6 POLE 2-WAY
2 POLE 5-WAY

**WAFERS
PRICE 40p each**

STANDARD 'MAINS SWITCH'
A Double-Pole Toggle Switch to mount on 'Maka-Switch' Assemblies. Rated 250 V a.c. at 1 amp. Dimensions: Dia. 25mm D. 19mm WT. 1/2oz. 46p Price

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

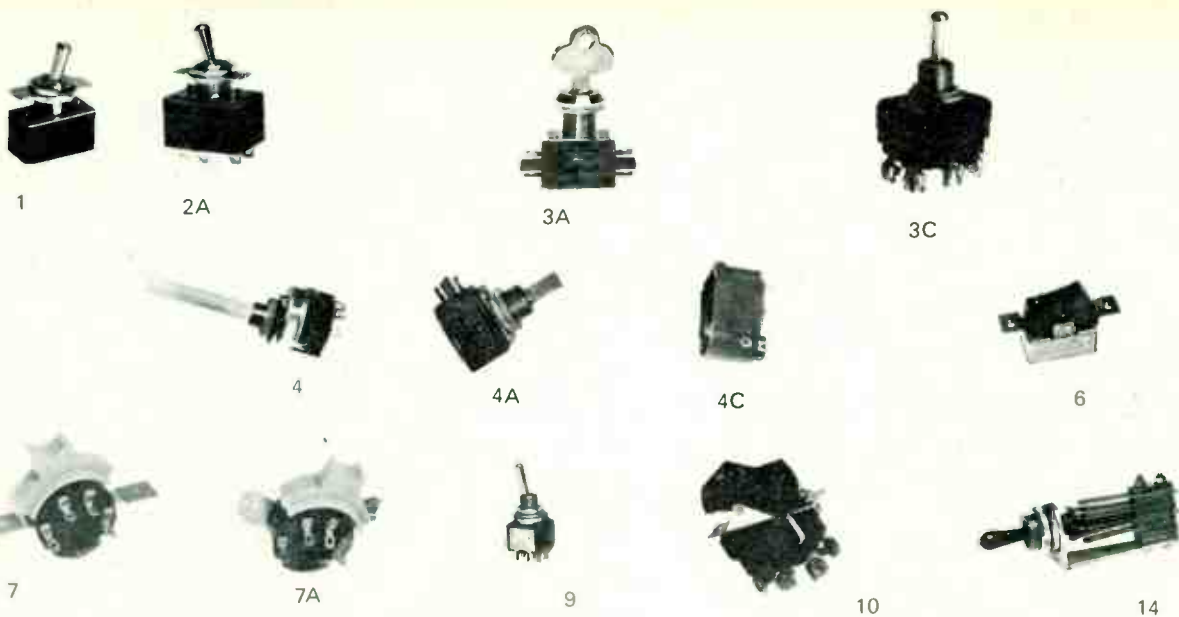
TO CONVERT CARR PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V. A. T.

CARR/PACK A

C24

World Radio History

TOGGLE – ROCKER – KEY – LEVER SWITCHES



C

- (1) Single Pole on/off Toggle 23p
- (2A) 2 pole 2 way Toggle 32p
- (3A) Bulgin S324/D 2 pole 2 way rotary key operated 54p
- (4) 2 pole on/off rotary 27p
- (4A) Bulgin S256 2 pole on/off rotary 34p
- (4C) 2 amp mains switch for use with external or remote control actuator 13p
- (6) 2 pole 2 way Rocker Switch 28p
- (7) 2 pole on/off thumb switch 28p
- (7A) As (7) but different fitting 28p
- (9) Sub-miniature 2 pole 2 way toggle 75p
- (9B) Single Pole on/off version 69p
- (10) 10 amp 2 pole 2 way Rocker Switch 40p
- (14) Bulgin S701 2 pole 2 way lever switch. Centre bias, locks one way, spring action the other way. 48p

SERIES 8

- RR.53 Miniature black rocker switch with snap-in fixing. SPST. Current: 5 amps @ 240 volts AC. Dimensions: Body: 22x13x13mm. Fixing Hole: 13x13mm. 54p
- RR.54 Miniature black rocker switch with snap-in fixing. As RR.53 but SPDT. 64p
- RR.55 Miniature black rocker switch with snap-in fixing. As RR.53 but DPDT. 75p
- RR.56 Miniature silver rocker switch with snap-in fixing. SPST. Current: 5 amps @ 240 volts AC. Dimensions: Body: 17x13x13mm. Fixing Hole: 13x13mm. 64p
- RR.57 Miniature silver rocker switch with snap-in fixing. As RR.56 but SPDT. 70p
- RR.58 Miniature silver rocker switch with snap-in fixing. As RR.56 but DPDT. 86p



RR 53 – 58



5A, 5B

NOTE: All types above suitable for mains switching.

YALE LOCK SWITCHES

2 POLE ON/OFF

PRICE £1.85 EACH WITH 2 KEYS
PAIRS AVAILABLE



MINIATURE LEVER SWITCH (24)

Shown full size, 1 pole 3 way biased one way, hold on other way. PRICE 11p

PRESET TYPE (23)

Ultra Subminiature 10 x 10mm 1 pole, 4 way preset. PRICE 8p

S691 Bulgin miniature leaf switch. PRICE 20p

S742 Bulgin single pole change over leaf press button switch. PRICE 27p

CARR/PACK A



WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

CROSSOVERS etc.

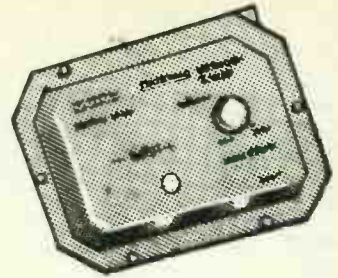
F095 TWO-WAY DIVIDING NETWORK

Superb presentation on heavy duty plastic panel for recess fitting into cabinets of 2-way crossover for introduction into multiple speaker systems. Rotary controls providing 500 Hz variation on a nominal 2,500 Hz crossover frequency. Spring loaded polarised speaker connections. 30 watts rating. 8 ohm impedance.

Crossover Frequency: 2,500 Hz \pm 500 Hz
 Attenuation (Bass & H.F. Unit): 12db/Octave
 Size: 160 x 120 x 55 mm
 Weight: 0.26 kg

CARR/PACK 'A'

PRICE	CODE
£7.87	F095



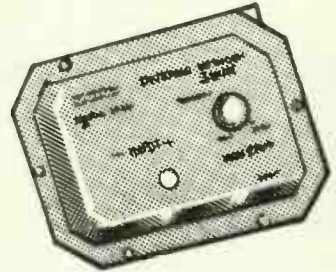
F096 THREE-WAY DIVIDING NETWORK

Presented on a similar well finished black escutcheon with white markings, this unit has a 3-way network circuit with crossover frequencies at 600 Hz and 2,500 Hz, and is intended for use with systems where a bass unit, mid range unit and tweeter are employed. Rotary control provides 500 Hz variation on nominal crossover frequency of 2,500 Hz. 30 watts. 8 ohms impedance.

Crossover Frequencies: 600 Hz & 2,500 Hz \pm 500 Hz
 Attenuation (Bass, Mid & H.F. Units): 12 db/Octave
 Size: 160 x 120 x 55 mm
 Weight: 0.48 kg

CARR/PACK 'A'

PRICE	CODE
£9.00	F096



F097 SPEAKER SELECTION SWITCH

Attractively finished in gold, this wall plate houses a 7 position speaker switch for the selection of up to 3 pairs of units. Positions are 1, 2, 3, 1-2, 1-3, ALL. Plate dimensions: 69mm x 114mm. Individual see-through hanging pack with data.

CARR/PACK 'A'

PRICE	CODE
£3.45	F097

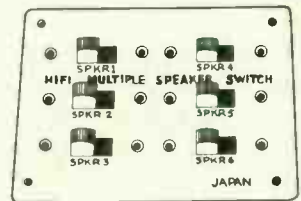


F098 MULTIPLE SPEAKER SWITCH

Six Double Pole Double Throw slide switches mounted onto a gilt finished wall plate. Ideal for convenient selection of speakers, circuits, etc. 69 x 107mm. Packed in individual see-through display.

CARR/PACK 'A'

PRICE	CODE
£1.80	F098



F099

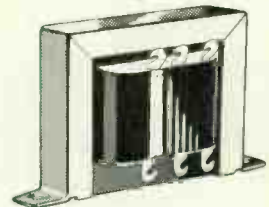
Auto transformer for matching 8 ohm or 15 ohm speakers to sets with 2-5 ohms output, or vice-versa. Frequency response is within 1 db. from 20 c/s to 15 kc/s. Power handling capacity 15 watts. Can be used to match loudspeakers of different impedances to crossover unit in high quality multi-speaker systems.

F100 *As above, but isolating.*

CARR/PACK 'B'

PRICE	CODE
90p	F099

PRICE	CODE
90p	F100



WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
 TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

Crossovers

(CARR/PACK 'A' ON ALL ITEMS)

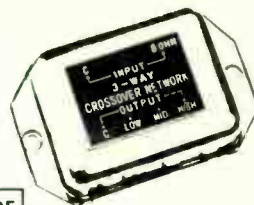
F105 3-WAY CROSSOVER NETWORK

A completely self-contained 3-way crossover network designed to route high, midrange and low frequencies to appropriate speakers. Recommended for use with any 3-way combination of the Eagle chassis unit range. Supplied complete with full installation instructions.

Impedance: 8 ohms.

Crossover frequencies: 1,000 and 5,000 Hz.

Components: L & C. Suitable for systems up to 25 watts RMS.



PRICE	CODE
£3.00	F105

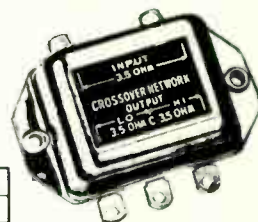
F106/107/108 CROSSOVER NETWORKS

These compact 2-way crossover networks channel high and low frequencies to proper speakers – high to tweeters and low to bass unit. They are supplied complete with full installation instructions.

CN 23 – 3 ohms. CN 28 – 8 ohms. CN 216 – 16 ohms.

Crossover frequency: 3,000 Hz.

Components: L & C. Suitable for systems up to 15 watts RMS.



PRICE	CODE
£1.77	F106
£1.77	F107
£1.77	F108

F109 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 crossover network a heavy gauge metal panel carries spring loaded terminals for quick and reliable connection of the finished speaker system.

Impedance: 8 ohms.

Crossover frequency: 3,000 Hz. Suitable for systems up to 15 watts RMS.

PRICE	CODE
£4.75	F109



F110 3-WAY SPEAKER NETWORK

The FF 30 uses a comprehensive L-C network to split-out and separate bass, middle and high frequency ranges. In addition, the midrange and high frequency channels incorporate variable attenuators which allow adjustment for individual speakers and room acoustics. The network and controls are mounted on a heavy gauge panel which carries spring loaded colour coded connection terminals.

Impedance: 8 ohms.

Crossover frequencies: 1,000 and 5,000 Hz.

Components: L, C and variable R. Suitable for systems up to 25 watts RMS.

PRICE	CODE
£9.68	F110



VARIABLE CROSSOVER F111

Highly flexible crossover unit in two-tone metal case with flanged side fixing. Continuously variable cross-over between bass (woofer) and high-frequency (tweeter) units with control on front. Polarised screw tag connections. 4 x 1½ x 2½ inches.

PRICE	CODE
£1.87	F111



WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

SET 350

8 or 15 ohm 20 watt system. Bass unit uses a ceramic magnet. The cone is fitted with an aluminium centre. The high frequency unit — tweeter has a high flux ceramic magnet. Cross over frequency 5000 c/s. Cabinet size should be approx. 58 x 30 x 28 cm made of 2 cm wood or similar and lined. Smaller sizes can be used.

Frequency-range: 20 c/s to 20,000 c/s;
 Power Handling: 20 watts
 Impedance: 8 ohms or 15 ohms.
 Flux Density: Bass unit 11,000 gauss
 HF unit 10,000 gauss
 Bass Resonance: 20-30 c/s.
 Crossover Frequency: 5000 c/s.
 Total Weight: 5½ lbs.

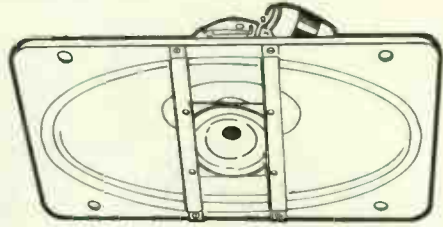
PRICE F 116
 (Carriage etc. B each or C a pair)

***STATE 8 OR 15 OHMS WHEN ORDERING**

PRICE	CODE
£11.15	F116

EMI

13 by 8
 (33 x 20.3 cm)
LOUDSPEAKERS



SET 450A

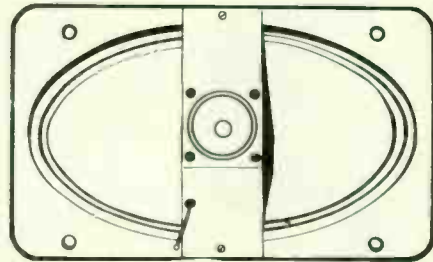
3, 8 or 15 ohm 10 watt system with bass unit, twin tweeters and crossover. Recommended to use a cabinet size approx 45 x 28 x 25 cm lined. Infinite baffle colume between 2000 and 3000 cubic inches.

Frequency Range: 40 c/s to 13,000 c/s.
 Power Handling: 10 watts
 Impedance: 3, 8 or 15 ohms
 Flux Density: Bass unit 10,000 gauss
 HF units 7,000 gauss
 Bass Resonance: 40 c/s — 50 c/s
 Crossover Frequency: 8,5000 c/s.
 Total Weight: 2¼ lbs.

PRICE F 117
 (Carriage etc. B each or C a pair)

***STATE 3, 8 or 15 ohms WHEN ORDERING**

PRICE	CODE
£4.80	F117



F

SET 150TC

8-10 watt twin cone unit, 50Hz-11,000 Hz, Bass resonance 50 - 75 Hz. Flux Density 10,000 gauss. Cabinet size to use about 43 x 23 x 20 cm lined. Infinite baffle of 1,800 to 2,500 cubic inches.

***STATE 3, 8 or 15 ohms.**

Carr/Pack B each or C a pair

PRICE	CODE
£2.75	F118

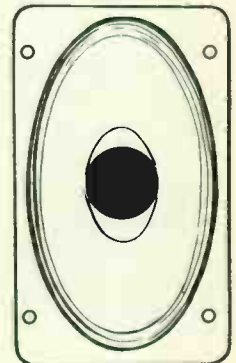
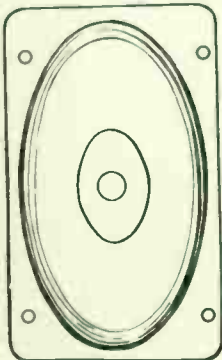
BASS

As above, but without tweeter cone.

***STATE 3, 8 or 15 ohms.**

(Carriage etc. B each or C a pair)

PRICE	CODE
£2.25	F119



NO TWEETER

ALSO AVAILABLE "EW" 13 x 8 15 watt 8 with TWEETER.
 Carriage/Packing B each or C per pair.

PRICE	CODE
£7.80	F120

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

GOODMANS HIGH FIDELITY CONSTRUCTORS' RANGE

DIN 20 KIT

20 watt, high fidelity loudspeaker kit contains all parts necessary to complete the system, except timber and other material for the cabinet itself, with detailed, illustrated instructions. Specification: 20 watts DIN, 4 ohms impedance, 8 in. bass unit, dome HF radiator, crossover frequency 4,000 Hz.

Carr/Pack 'C'



PRICE	CODE
£18.12	F124

AXIOM 401

High power version of the well known range of Axiom 12 in. high fidelity loudspeakers. Developed especially to suit the contemporary scene of discotheques and high power portable P.A. systems. Range: 30-11,000 Hz. Power Handling: 40 watts. Impedance: 8 ohms or 15-16 ohms.

Carr/Pack 'C'

PRICE	CODE
£25.00	F125



TWINAXIOM 8

Full range high fidelity loudspeaker, 8 in. diameter. Range: 40-18,000 Hz. Power handling: 15 w DIN. Imp: 8 or 15 ohms. Carr/Pack 'B'

PRICE	CODE
£11.56	F128



TWINAXIOM 10

Full range high-fidelity loudspeaker, 10 in. diameter. Range: 40 Hz to 18,000 Hz. Power handling: 15 watts DIN. Impedance: 15 ohms or 8 ohms.

Carr/Pack 'B'

PRICE	CODE
£12.33	F129



PRICE	CODE
£9.93	F130

AXENT 100

Dome HF Radiator with built-in crossover. Capable of high frequency sound reproduction with negligible distortion in systems rated up to 30 watts DIN. This 'state of the art' drive unit has an integral crossover which cuts frequencies below 3kHz at a rate of 12 dB/octave.

Carr/Pack 'A'

AUDIOM 100

12 in. high fidelity bass loudspeaker. For use as a bass unit in two-way systems, the sensitivity and high frequency roll-off of the Audiom 100 has been tailored to match the Axent 100.

Carr/Pack 'C'

PRICE	CODE
£17.18	F131



3 SPEAKER SYSTEM (F134)

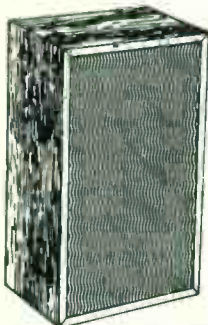
Based on Philips speakers and comprising

4½" BASS UNIT
4½" x 2¼" MID RANGE
4" TWEETER

PLUS CN28 Crossover and 36.8 x 21 cm Baffle

PRICE	CODE
£3.25	F134
£6.00	F135

Suitable polished wood cabinet, 42 x 26 x 14 cm. (F135) Carr/Pack 'C'



MIDAX

Horn-loaded middle-register loudspeaker for use in three-way systems. Range: 650 Hz to 8,000 Hz. Crossovers: 950 and 5,000 Hz. Imp.: 15 ohms. Max. power handling (in systems): 25 watts. Carr/Pack 'B'

PRICE	CODE
£20.93	F132

POLISHED WOOD CABINET suitable for EMI 13 x 8 Range Loudspeakers, except '350' 42 x 26 x 14 cm.

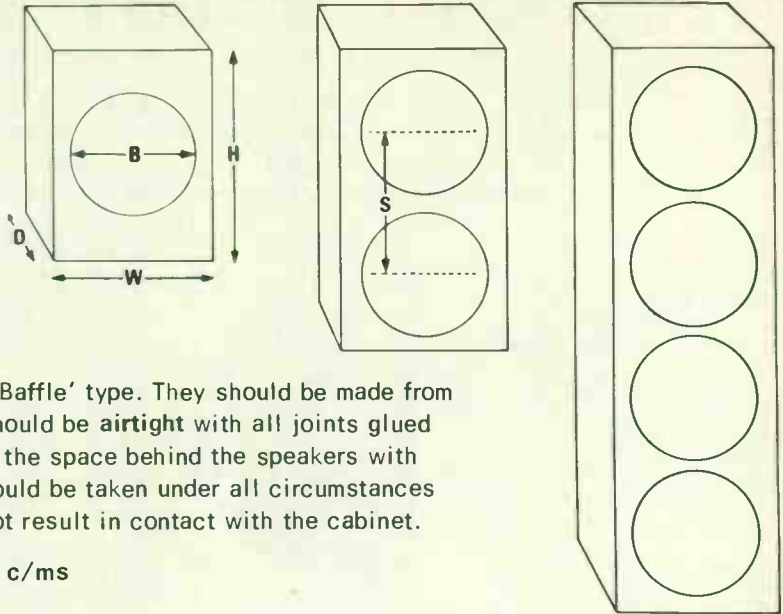
PRICE	CODE
£6.00	F133

Carriage/Packing C

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

CABINETS FOR 33 cm x 20.3 cm, 30.5 cm and 38.1 cm LOUSPEAKERS (13" x 8"), (12") & (15")



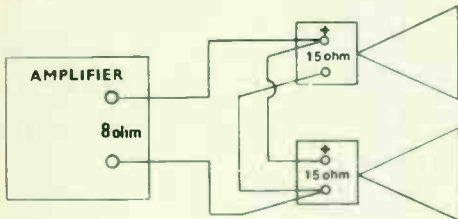
These cabinets are of the 'Infinite Baffle' type. They should be made from 2 cm chipboard or plywood. They should be airtight with all joints glued and screwed. It is desirable to fill the space behind the speakers with sound absorbent material. Care should be taken under all circumstances that forward cone movement will not result in contact with the cabinet.

Outside dimensions of cabinets in c/ms

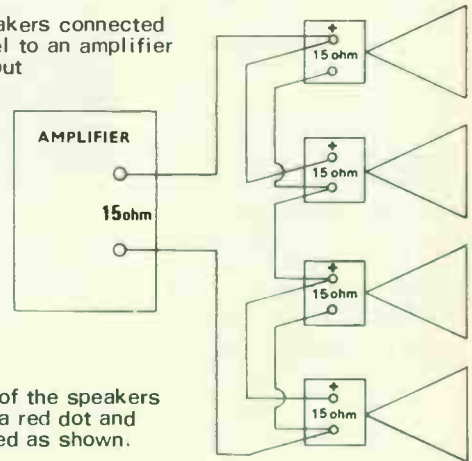
Dimensions (cms)	Single Speaker			Two Speakers			Four Speakers		
	33 x 20.3	30.5	38.1	33 x 20.3	30.5	38.1	33 x 20.3	30.5	38.1
Height H	45.7	55.9	61.0	76.2	76.2	91.4	152.4	147.3	182.8
Width W	30.5	40.6	45.7	30.5	40.6	45.7	30.5	40.6	45.7
Depth D	22.9	22.9	25.4	22.9	22.9	28.0	22.9	22.9	28.0
Spacing S	—	—	—	35.5	33.0	40.6	35.5	33.0	40.6
Baffle Hole B	Ellipse 29.2 x 18.5	28.0 dia.	34.3 dia.	Ellipse 29.2 x 18.5	28.0 dia.	34.3 dia.	Ellipse 29.2 x 18.5	28.0 dia.	34.3 dia.

LOUDSPEAKER CONNECTIONS

Two 15 ohm speakers connected in parallel to an amplifier with 8 ohm output



Four 15 ohm speakers connected in series/parallel to an amplifier with 15 ohm output



The + terminals of the speakers are marked with a red dot and must be connected as shown.

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.



TEST EQUIPMENT HR

FOR AMATEUR, PROFESSIONAL AND EDUCATIONAL USE

MULTIMETERS

RECOMMENDED LOW COST TEST EQUIPMENT

THL33 MULTI-METER

Return of a popular model. Robust in design and construction. Large scale. Recommended and reliable. Overall size: 125 x 90 x 38 approx. mm.

RANGES

(2000 ohms per volt AC & DC)
0/10/50/250/500/1000v AC/DC
0/500 uA, 0/10/250mA DC.
0/10K/100K/1 Meg Resistance.
(Centre scales 100 ohms, 1K & 100K).

dB and Capacitance Scales. Complete with Test Leads, Battery and instructions.

PRICE	CODE
£8.10	G001

Carr/Pack 'A'



Case for THL 33

PRICE	CODE
£1.62	G007

ITI-2 VOLT-OHM-MILLIAMMETER

20,000 OHM/VOLT
Highly sensitive—accurate.
Size: 120 x 80 x 22 mm.

RANGES:

DC Voltage: 5/25/50/250/
500 & 2.5K (2,000 Ohms per Volt)
AC Voltage: 10/50/100/500/
1000 Volts (10,000 Ohms per Volt)
DC Current: 0–50µA, 0–2.5 mA,
0–250mA
Resistance: 0–60K, 0–6M
(300 Ohm and 30K at centre scale)
Capacitance: 100µF to 0.01µF
Decibels: –20 to +22 dB
Complete with test leads, battery and instructions.

Carriage/Packing 'A'



PRICE	CODE
£6.43	G003

M-210 MULTITESTER

Pocket sized accuracy

Size: 120 x 80 x 23 mm

RANGES:

DC Voltage: 5/25/125/500 & 1K (20,000 Ohms per Volt)
AC Voltage: 10/50/250/1000 Volts (10,000 Ohms per Volt)
DC Current: 0–50µA
0–250 mA
Resistance: 0–60K, 0–6Mg
Decibels: –20 to +62 DB
(With OFF Position in switch)

Complete with test leads, battery and instructions.

PRICE	CODE
£7.29	G002

Case for M210

PRICE	CODE
£1.35	G 006



AF105 MULTI-METER

Mirrored scale and overload protection

Represents the best in quality and performance. Has 'off' position, polarity switch, two coloured and mirrored scale. Also overload protection. Meter sensitivity 20 uA. Input 50,000 ohms per volt. Socket for use as output meter.

RANGES

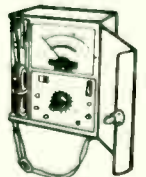
0/0.3/3/12/60/120/300/600/
1200 volts DC (50K/V)
0/6/30/120/300/600/1200
volts AC (10K/V)
0/30µA, 0/6/60/300 mA,
0/12 Amp.
Resistance: 0/ 10K / 1 Meg/
10 Meg/100 Meg.
Centre scale 100 ohms/1K/
10K/100K
Overall size: 165 x 103 x 45
approx. mm.
Complete with leads,
batteries and instructions.

PRICE	CODE
£13.50	G 004

Carr/Pack 'A'

PRICE	CODE
£2.05	G005

A.F.105 CASE



WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

RUSSIAN ROBUST METERS

AC/DC MULTI-METERS TYPE U4312 & U4313 *With taut suspension movements*

These high quality meters incorporate all facilities required for field and laboratory use; knife-edge pointers and 86mm long mirror scales allow the high inherent accuracy of the movements to be utilised fully. **COMPREHENSIVE COVERAGE OF A.C. CURRENT RANGES IN BOTH TYPES IS PROVIDED.** Both instruments are similar in appearance; the main differences as below:—
TYPE U4312—medium sensitivity movement (667 o.p.v. on both AC and DC ranges). High calibration accuracy — 1% on DC and 1.5% on AC ranges. High current and voltage ranges — up to 6 Amps and 900 Volts AC/DC make the instrument especially suitable for general electrical work, installation work, for use as a field standard for checking accuracy of other meters etc.
TYPE U4313 is a high sensitivity instrument (20,000 o.p.v. on DC and 2,000 o.p.v. on AC) with an accuracy of 1.5% on DC ranges and 2.5% on AC. Inclusion of three DC and one AC microamp range, as well as provision of output level and capacity ranges makes the meter suitable for general electronic applications, radio repair work and laboratory use.

The movement can withstand overloads of up to 100 times for short periods without damage. No overload protection is therefore provided. To avoid damage of the movement and associated components it is essential, when measuring voltages and currents, to use highest available range at the start, and switch down until good deflection is obtained.

THE INSTRUMENT SHOULD BE USED IN HORIZONTAL POSITION

U4312	PRICE	CODE	U4313	PRICE	CODE
	£11.61	G009		£14.90	G010

complete with sturdy steel carrying case and test leads.

TECHNICAL DATA

	TYPE U4312	TYPE U4313
DC current, Microamps	300	60—120
DC and AC current, mA	1.5-6-15-60-150-500	0.6-3-15-60-300
DC and AC current, Amps	1.5-6	1.5
DC millivolts	75	75
DC and AC Volts	0.3-1.5-7.5-30-60 150-300-600-900	1.5-3-7.5-15-30- 60-150-300-600
DC resistance, kilohms	0.2-5-50	1-10-100-1000
Frequency range	45-10,000 Hz	45-5,000 Hz
DC resistance additional ranges using external source of	300K ohms, 3 Megs 12.5 V	5 Megs 41 V
Capacity, using external source of 220V AC		0.5uF -10 to +12db
Transmission level		1.5%
Accuracy, DC ranges	1%	1.5%
Accuracy, AC ranges	1.5%	2.5%
Sensitivity, ohms per volt:-DC ranges	667	20,000
AC ranges	667	2,000
Voltage drop at the terminals:- in DC current measurements	0.63 V	0.3 V
in AC current measurements	0.63 V	1.0 V
Power supplies	4.5 V dry battery	4.5 V dry battery
Overall dimensions:- Instrument only	115 x 215 x 90mm	as U4312
Carrying case	205 x 260 x 105mm	as U4312
Weight, kilograms:- Instrument only 1/4 kg approx; Instrument with case 2 1/4 kg approx.		



C/P B

AC CLAMP VOLT-AMMETER TYPE U-91

Used for measurements of AC voltages and currents without breaking the circuits.

Ranges are selected by means of a rotary selector switch. Complete with carrying case, leads & 2 fuses G92

PRICE	CODE
£15.12	G012

AC/DC MULTIMETER AND TRANSISTOR TESTER

TYPE U4341

This Multimeter provides 27 AC/DC ranges as well as transistor testing facilities. Transistor measurements are made in the common emitter circuit.

Measurements Ranges & Specification

DC Voltage	0.3-1.5-30-60-150-300-900 V
AC Voltage	1.5-7.5-30-150-300-750 V
DC Current	0.06-0.6-6-60-600mA
AC Current	0.3-3-30-300mA
Resistance	0.5-5-50-500 kohms
Resistance extended range, with external voltage source of 35 to 40 V	5 megohms
Transistor parameters:-	
Collector cut-off current	60 microamps
D.C. current gain, h_{FE}	10-350

Accuracy, D.C. ranges	2.5%
Accuracy, A.C. ranges	4.0%
Accuracy, h_{FE}	5%
Sensitivity, D.C.	16700 ohms per volt
Sensitivity, A.C.	3300 ohms per volt
Voltage drop at the terminals:-	
on D.C. current ranges	0.3V
on A.C. current ranges	1.5V
Scale length	86 mm
Overall dimensions	115 x 215 x 90 mm

PRICE — complete with probes and leads and steel carrying case

PRICE	CODE
£11.88	G011

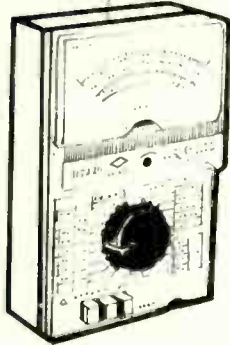
WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

AC/DC MULTIMETER TYPE U4324

With taut band suspension movement

High sensitivity movement and full coverage of AC and DC current and voltage ranges. 4-Volt cadmium cell operation. Sensitivity 20,000 ohms per volt on DC and 4,000 ohms per volt on AC.



Although movement itself will withstand overloads up to 100 times without damage, additional protection in the form of silicon diodes is provided. Four resistance ranges are available using internal battery. Lowest range (0 to 500 ohms) reverses the scale, i.e. with zero on the left.

TECHNICAL DATA

Scale length	80 mm
Volts and Amps	80 mm
Resistance	52 mm
Decibels	45 mm
DC current ranges	0.06-0.6-6-60-600mA-3 Amps
AC current ranges	0.3-3-30-300mA-3 Amps
DC voltage ranges	0.6-1.2-3-12-30-60-120-600-1200 Volts
AC voltage ranges	3-6-15-60-150-1300-600-900 Volts
Frequency range	45 to 20,000 Hz.
Resistance ranges:	
Using internal battery	500Ω, 5-50-500kΩ
Using external battery	5MΩ
Decibel range	-10 to +12dB
Accuracy (% of F.S.D.):-	
DC and resistance measurements	± 2.5
AC and decibel measurements	± 4.0
Dimensions	167 x 98 x 63 mm
Weight	680 g

PRICE complete with test leads, spare rectifier diode, operating instructions and fibreboard storage case.

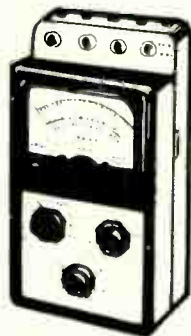
PRICE	CODE
£10.64	G015

Carr/Pack 'B'

AC/DC MULTIMETER TYPE U435

With taut suspension movements

High sensitivity movement and full coverage of AC and DC current and Voltage ranges. 1.5V dry cell operation. 20,000Ω/V on DC, and 2,000Ω/V on AC ranges.



The instrument is provided with one common positive terminal, capacity measuring terminal and five sockets for resistance measurements; these are: common, x 1, x 10, x 100 and x 1000.

Since two separate knobs select voltage and current ranges, it is possible to set both ranges simultaneously and perform voltage and current measurements simply by transferring negative plug from current to voltage socket.

PRICE complete with leads, crocodile clips and steel carrying case

PRICE	CODE
£11.88	G016

Carr/Pack 'B'

TECHNICAL DATA

DC current ranges	50μA, 1.5-25-100mA 0.5-2.5A
AC current ranges	5-25-100mA-0.5-2.5A
DC voltage ranges	75mV 2.5-10-25-100-250 500-1000V
AC voltage ranges	2.5-10-25-100-250-500- 1000V
Frequency range	45-20,000Hz
Resistance range	3-30-300kΩ
Additional resistance range with external battery	3MΩ
Capacity, with 230V mains supply ..	0.5μF
Basic error on DC ranges	± 2.5% of F.S.D.
Basic error on AC ranges	± 4% of F.S.D.
Basic error on resistance ranges	± 2.5% of F.S.D.
Basic error on capacity range	± 4% of F.S.D.
Full deflection current -	
on DC Voltage measurements	50μA
on AC Voltage measurements	0.5mA
Voltage drop across instrument terminals:-	
on DC current ranges	0.35V max.
on AC current ranges	1.1V max.
Scale length	85mm
Test voltage between circuit and housing	3kV r.j. s. 50Hz
Overall dimensions:	
Instrument	205 x 110 x 84
Steel carrying case	260 x 205 x 105
Weight:	
Instrument	1.3kg
Instrument and case	2.96kg

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. **PRICE INCLUSIVE OF V.A.T.**

AC/DC MULTIMETER Type U 4323
with built-in Generator.

A High sensitivity movement and full coverage of AC and DC current and voltage ranges.

The measuring circuit elements, generator and measuring mechanism of the instrument are enclosed in a housing protecting them against mechanical damage.

The measuring mechanism, jacks for connection to the circuit to be measured, ohmmeter zeroing disk, and nameplate are on the instrument face panel, while the additional information on instrument characteristics is on the nameplate at the back of the instrument. Provision has been made in the instrument design for the replacement of dry cells without deranging the Manufacturer's seal.

The instrument employs a measuring mechanism of magnetoelectric system on braces and inside-frame magnet.

To protect the measuring mechanism against accidental electrical overloads, diode protection is employed.

The current and voltage measurement ranges can be expanded by the use of shunts and range multipliers.

The alternating current is rectified in a full-wave circuit.

The resistance is measured in an in-series circuit of a magnetoelectric ohmmeter.

2 x U10 Batteries
20KΩ per volt DC
4KΩ per volt AC



TECHNICAL DATA

DC Current range..... 0.05-0.6-5-50-500
AC Current range..... 0.05
DC Voltage range..... 0.5-2.5-10-50-250-500-1000
AC Voltage range..... 2.5-10-50-250-500-1000
DC Resistance range..... 0.5-5-50-500 KΩ
Basic Instrument error in current & voltage not exceeding..... ± 5%
Error in DC resistance measurement not exceeding..... ± 5%
Dimensions..... 140 x 87 x 40 mm.
Weight..... 0.45 kg.

PRICE. Complete with leads, crocodile clips, instructions and plastic case.

PRICE	CODE
£8.64	G020

CARR/PACK 'A'

SUB-STANDARD MULTI-RANGE VOLTAMMETER. TYPE U4311

Sub-standard Multi-range Volt-ammeter type U4311 with basic sensitivity of 333Ω/V, both on AC and DC measurements. 13 DC voltage ranges and 10 AC voltage ranges are provided as well as 14 DC current ranges and 11 AC current ranges. Instrument is protected by transistorized relay circuit shunting the measuring mechanism in case of overload. The overload trip operates on 10 times overload, and time required to trip the instrument is approx. 0.03 sec. Trip circuit is operated by internal 4.5V battery.



AC Measurements

Voltage range	Full deflection current	Current range	Voltage drop
0.75V	1.5mA	3mA	0.4V
1.5V	0.7mA	7.5mA	0.55V
3.0V	5mA	15mA	0.60V
7.5V	3.5mA	30mA	0.65V
15V	3.5mA	75mA	0.65V
30V	3.5mA	150mA	0.65V
75V	3.5mA	300mA	0.65V
150V	3.5mA	750mA	0.70V
300V	3.5mA	1.5A	0.75V
750V	3.5mA	3.0A	0.80V
		7.5A	0.95V

Technical Data		DC Measurements	
Voltage range	Full deflection current	Current range	Voltage drop
75mV	343μA	300 μA	75mV
150mV	343μA	750 μA	0.36V
300mV	300μA	1.5mA	0.48V
750mV	500μA	3mA	0.54V
1.5V	500μA	7.5mA	0.57V
3.0V	5mA	15mA	0.59V
7.5V	3mA	30mA	0.60V
15V	3mA	75mA	0.60V
30V	3mA	150mA	0.60V
75V	3mA	300mA	0.60V
150V	3mA	750mA	0.63V
300V	3mA	1.5A	0.66V
750V	3mA	3.0A	0.71V
		7.5A	0.86V

Scale length 165mm
Rated frequency range 45-55Hz
Basic error, % of F.S.D.:—
on DC ranges 0.5%
on AC ranges 1.0%
Change of readings due to change of temperature from 20°C to any temperature within the range of +10°C to + 35°C not exceeding basic error
Change of readings caused by ±10° deviation of the instrument from horizontal not exceeding basic error
Waveform of current or voltage source factor not exceeding 2%
Maximum ripple on DC source 1%
Overall dimensions, instrument only 225 x 295 x 125 mm
Overall dimensions, case 275 x 330 x 140 mm
Weight, Instrument only 9lbs
Weight, Instrument & case 13lbs
Complete with 2 sets of test leads, spade terminals, crocodile clips, 2 spare diodes and fibre-board carrying case.

CARR/PACK 'B'

PRICE	CODE
£56.16	G021

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

TMK TESTMETERS

TMK UNIVERSAL TESTMETER Model 700

Meter movement is of 50 microamperes DC sensitivity, and has full automatic overload protection. Buzzer incorporated for testing wiring or short circuits. Movement lock for transit purposes. Rigid moulded handle can be swivelled for use as a tilt support. Meter size 114 mm x 85 mm, with a knife edge pointer over a widely spaced 2 colour scale for easy readings. Overall dimensions 190 x 145 x 95 mm approx. weight 2Kg. approx. Supplied complete with internal batteries, test leads and prods, and 12 page instruction manual.



CODE
G025

Carr/Pack 'B'

20,000 ohms per volt DC. 4,000 ohms per volt AC

SPECIFICATIONS

DC Current: 0-0.25-2.5-10-50-100-250-1,000-5,000 at 20,000 ohms per volt.
 AC Voltage: 0-2.5-10-50-100-250-1,000-5,000 at 4,000 ohms per volt.
 Direct Current: 0-50 Microamps. 0-0.5-5-50-500 mA. 0-10 Amps.
 Alt. Current: 0-0.5-5-50-500 mA. 0-10 Amps.
 Resistance: From 0.5 ohm to 50 Megohms. x 1- x 10- x 100- x 1K- x 10K, with centre scale readings of 30 ohms-300 ohms-3K ohms-30K ohms-300K ohms.
 Decibels: -10 to +42 dB (0dB = 1mW in 600 ohms).
 Continuity: Internal buzzer for audible warning.

Leather Carrying Case, optional extra.

CODE
G026

TMK UNIVERSAL TESTMETER Model 700B

A superb high sensitivity instrument for the Workshop or Laboratory Technician, incorporating 20 Microamperes DC movement with overload protective diodes. Fitted with buzzer for ease of checking short circuits or continuity, and movement lock for transit purposes. A special feature is the ability to measure very low Voltage & Current, both Alternating and Direct. Rigid moulded handle can be swivelled for use as a tilt support. Meter size 20 mm x 65 mm with knife edge pointer over a widely spaced 2 colour mirror scale for ease of reading. Overall dimensions 190 x 145 x 95 mm approx., weight 2kg approx. Supplied complete with internal batteries, test leads and prods, and 12 page instruction manual.



PRICE	CODE
£39.20	G027

Carr/Pack 'B'

With Mirror Scale and Overload Protection

SPECIFICATIONS

DC Voltage: 0-0.1-0.5-2.5-10-50-100-250-1,000V at 50,000 ohms per volt
 AC Voltage: 0-2.5-10-50-100-250-1,000V at 4,000 ohms per volt.
 Direct Current: 0-20 Microamperes 0-0.5-5-50-500 mA. 0-10 Amps.
 Alt. Current: 0-0.5-5-50-500 mA. 0-10 Amps.
 Resistance: 0-500 ohms. 0-5-50-500 Kohms. 0.50 Megohms (Centre scale readings 70 ohms-700 ohms-7Kohms-70Kohms-700K ohms)
 Decibels: -10 to +42 dB. (0dB = 1mW in 600 ohms)
 Continuity: Internal buzzer for audible warning.

Leather Carrying Case, optional extra.

CODE
G026

TMK UNIVERSAL TESTMETER Model 500

Sensitivity is 33 microamperes DC and use of a knife edge pointer over a 2 colour scale, which is in a clear perspex cover, gives quick easy readings. Stable printed circuit, positive action selector switch with recessed finger grip, "Off" position to lock movement in transit, and an internal buzzer to give audible warning when testing for short circuits. Complete with test leads and probes, internal batteries and operating instructions.
 Size: 84 x 161 x 70mm approx.
 Weight: ¾ Kg.



CODE
G028

Carr/Pack 'B'

With Mirror Scale and Overload Protection
 30,000 ohms per volt DC. 15,000 ohms per volt AC

SPECIFICATIONS

DC Voltage: 0-0.25-1-2.5-10-25-100-250-500-1,000V at 30,000 ohms per volt.
 AC Voltage: 0-2.5-10-25-100-250-500-1,000V at 15,000 ohms per volt.
 DC Current: 0.05-5-50-500mA; 0-12 Amps.
 Resistance: From 5 ohms to 60 Megohms x 10 x 1k x 10k (Centre scale readings 350 ohms - 35K ohms - 350K ohms).
 Decibels: -20 to +56 dB (0dB = 1mW, in 600 ohms).
 AF Output: Internal blocking condenser.
 Continuity: Internal buzzer for audible warning.

Leather Carrying Case, optional extra.

CODE
G029

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
 TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

TMK FET MULTITESTER

This new testmeter fills the long standing requirement for a 'battery powered Valve Voltmeter'. Use of these highly sensitive instruments has previously been confined to the availability of A.C. Mains supply, but the Model 150 has no such limitations. An entirely self contained portable unit, it incorporates Field Effect Transistors, with all readings to a 2 colour mirror scale which gives freedom from parallax errors. Input resistance 11 Megohms DC it measures Peak to Peak Voltage, the Meter can be set to centre zero for null indication, and a DC Polarity reversing switch is fitted. Complete with test leads and prods, internal batteries, and instruction book. Size: 110 x 165 x 70 mm approx. Weight: 0.57Kg. approx.

Carr/Pack 'B'



CODE
G034

MODEL 150

With a Mirrored two colour scale

DC VOLTAGE:
0.25-1-2.5-25-100-250-1,000 V
Input Resistance 11 Megohms on all ranges.

AC VOLTAGE:
RMS-2.5-25-250-1,000 V Input
Resistance 1 Megohm on all ranges.
P-P-7-70-700-2,800 V

DIRECT CURRENT:
0.025-0.25-2.5-25-250 mA

RESISTANCE:
0-5K first range, with Multiplication
factors of 10-1K-10K-1M.

(Centre scale readings 30 ohms-
300 ohms-30Kohms-300Kohms-
30 Megohms.)

DECIBELS:
-20 to +62 dB
(0dB=0.775V/600 Ohms.

Leather Carrying
Case,
optional extra

CODE
G029

TMK UNIVERSAL TESTMETER

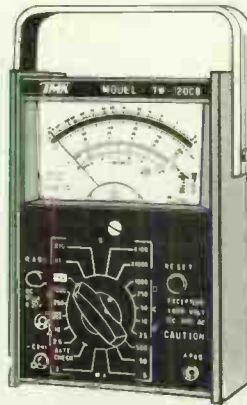
A low priced Testmeter with Positive Automatic protection by means of an "in-circuit" re-settable relay which opens in the presence of overloads, and fused test prods. Has 2 colour mirror scale, "Off" position to lock movement in transit, and internal battery check setting. Fills a long standing requirement by Service Engineers, Student bodies, etc., etc. Complete with internal batteries, test leads and prods, and instruction book.

Housed in grey moulded case, size: 110 x 165 x 60 mm approx. with rigid handle which can be swivelled for use as a tilt support, weight 0.57Kg.

CODE
G035

Carr/Pack 'B'

MODEL TW-20 CB



*20,000 ohms per volt
with a mirrored, two colour scale*
SPECIFICATIONS

DC VOLTAGE:
0-0.25-2.5-10-50-250-1,000V at
20,000 ohms per volt.

AC VOLTAGE:
0-2.5-10-50-250-1,000 V at
5,000 ohms per volt.

DC CURRENT:
0-50 Microamperes.
0-1-5-50-500 mA.,

RESISTANCE:
0-100 ohms. 0-1-10K ohms.
0-5 Megohms

(Centre scale readings 30 ohms-
300 ohms-3 K ohms-30 Kohms)

DECIBELS:
-20 to +62 dB.
(0dB=1 mW in 600 ohms)

Leather Carrying Case, optional extra

TMK MULTIMETER

An excellent low cost multimeter which will appeal to all engaged with transistor circuitry. Low DC Voltage and Current ranges allow minimum measurements, and a "Polarity" switch avoids changing test lead connections. Has 2 colour mirror scale, movement overload protection, and transit lock. Complete with internal batteries, test leads and prods, and operating instructions.

Housed in grey moulded case, size 110 x 165 x 60 mm approx.
Weight: 0.57Kg.

CODE
G036

Carr/Packing 'B'

MODEL TW-20S

20,000 ohms per volt with mirror scale



SPECIFICATIONS

DC VOLTAGE:
0-0.5-2.5-10-50-250-1,000 V at
20,000 ohms per volt.

AC VOLTAGE:
0-2.5-10-50-250-1,000 V at
5,000 ohms per volt.

DC CURRENT:
0-50-500 Microamperes
0-5-50-500 mA.
0-10 Amps.

RESISTANCE:
0-5-50-500K ohms; 0.5 Megohms.
(Centre scale readings 30 ohms;
300 ohms; 3 Kohms; 30 Kohms).

DECIBELS:
-20 to +52 dB.

OPTIONAL EXTRA: LEATHER CARRYING CASE TO FIT TW METERS

CODE
G037

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

TMK MULTITESTER

A very fine instrument incorporating variable sensitivity, which effectively doubles the Voltage and Current ranges. Has knife edge pointer over open 2 colour mirror scale. "Off" position to lock movement in transit, movement overload protection, and rigid handle which can be swivelled for use as a tilt support. Complete with internal batteries, test leads, and operating instructions.

Housed in grey moulded case.

Size: 110 x 165 x 60 mm.

Weight: 0.5 kg. approx.

CODE
G043

Carr/Pack 'B'

Leather carrying case, optional extra.

CODE
G037

MODEL TW-50K

**50,000 ohms per volt
with Mirror Scale**



SPECIFICATION

DC VOLTAGE:
0-0.25-10-50-250-1,000V
at 25,000 ohms per Volt.
0-0.125-1.25-5-25-125-500V
at 50,000 ohms per volt.

AC VOLTAGE:
0-3-10-50-250-1,000 V
at 2,500 ohms per volt
0-1.5-5-25-125-500 V
at 5,000 ohms per volt

DC CURRENT:
0-25 Microamps at 125 mV.
0-50 Microamps at 250 mV.
0-5-50-500mA at 250 mV.
0-2.5-25-250mA at 125 mV.
0-10 Amps at 250 mV.
0.5 Amps at 125 mV.

RESISTANCE:
0-10-100 Kohms; 0-1-10 Meg.
(Centre scale readings 65 ohms,
650 ohms; 6.5 Kohms; 65K ohms).

DECIBELS:
-20 to +81.5 dB.

TMK UNIVERSAL TESTMETER MODEL TP5 SN

A high sensitivity test meter designed primarily for use with Transistor and Television receivers, and advanced experimental work, this has low D.C. ranges of .5V and 5V full scale, "Off" position to lock movement in transit, and movement overload protective diode. Clear easily read open mirror scale with knife edge pointer. Complete with internal batteries, test leads and prods, and operating instructions.

In strong black wrinkle metal case, making it an ideal instrument for Installation and Service Engineers.

Size: 90 x 135 x 47 mm approx.

Weight: 0.4 kg. approx.

Carr/Pack 'B'

CODE
G044

Leather Carrying Case,
optional extra.

CODE
G045

**20,000 ohms per volt DC
10,000 ohms per volt AC
with Mirror Scale**

SPECIFICATION

DC VOLTAGES:
0-0.5-5-50-250-500-1,000V
at 20,000 ohms per volt.

AC VOLTAGES:
0-10-50-250-500-1,000 V
at 8,000 ohms per volt.

DC CURRENT:
0-50 Microamps. 0-5-50-500 mA

RESISTANCE:
0-10-100K; 0-1-10 Meg.
(Centre scale readings 60 ohms;
600 ohms; 6K ohms; 60K ohms).

CAPACITANCE:
0.00005-0.005 Microfarads.
0.001-0.1 Microfarads.

DECIBELS: -20 to +36 dB.



TMK TESTMETER

A first grade test meter designed for most radio uses, and readily portable being only 90 mm wide x 125 mm high x 36 mm deep, small enough to slip into a pocket. Now has ranges for reading 250 Volts full scale on both AC & DC, and is fitted with movement overload protective diode. Clear easily read open mirror scale, knife edge pointer and complete with internal batteries, test leads and prods, and operating instructions.

In black wrinkle metal case. Weight only 0.35 kg approx.

Leather carrying case, optional extra.

CODE
G046
CODE
G045

MODEL TP10S

2,000 ohms per volt with Mirror Scale

SPECIFICATION

DC VOLTAGES:
0-10-50-250-1,000V at 2,000 ohms per V.

AC VOLTAGES:
0-10-50-250-1,000V at 2,000 ohms per V.

DC CURRENT:
0-500 Microamps. 0-500 mA.

RESISTANCE:
0-10K; 0-1 Meg.
(60 ohms; 6 Kohms at centre scale).

CAPACITANCE:
0.0025-0.2 Microfarads.
0.005-1 Microfarad.

DECIBELS:
-20 to +32 dB in 4 ranges.

OUTPUT JACK:
for Audio measurements.



Carr/Pack 'B'

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.



AVOMETER MODEL 8 MK. 5

SPECIFICATION:

Current Ranges:
AC 100mA to 10A
F.S.D. in 4 ranges.
DC 50 μ A to 10A
F.S.D. in 7 ranges.

Voltage Ranges:
AC 2.5V to 2,500 V
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:
AC voltage and current
 $\pm 2.25\%$ of F.S.D.

DC voltage 2% of indication
DC current $\pm 1\%$ of F.S.D.

Sensitivity:
AC voltage ranges
1,000 Ω /V (10V upwards)
DC voltage ranges
20,000 Ω /V (all ranges).

Size: 204 x 185 x 115 mm.

Weight: 2.95 kg.
(including leads).

CODE
G052

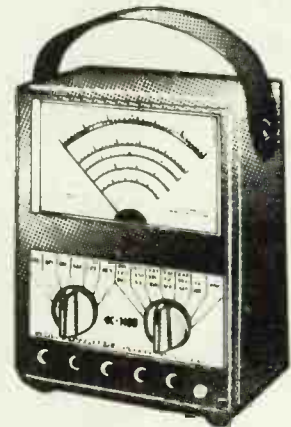
Carr/Pack 'B'

CODE
G053

LEATHER CASE Ever-Ready Type



Eagle[®] international V. O. M. MULTI-METER MODEL K1400



Professional quality VOM, using a giant 15cm meter with mirror scale. The vast range of readings are precise and easy to see. A feature of the instrument is the addition of 4 measuring ranges of AC current from 10mA to 10A complete with leather carrying handle, batteries and workshop operating manual.

Meter Sensitivity: 50 μ A.

DC Voltage:
0.025, 1, 2.5, 10, 50, 250, 1,000,
5,000V (20,000 O.P.V.)

AC Voltage:
2.5, 10, 50, 250, 1,000, 5,000V
(5,000 O.P.V.)

DC Current:
50 μ A, 1, 10, 100, 500mA, 10A.

AC Current:
10, 100, 500mA, 10A

Resistance:
0-2K ohm, 200K ohm, 20 megohm.

Mid-Scale: 12 ohm, 1.2K ohm, 120K ohm
Decibel: -20 to +50db (0db=1mW, 600 ohm). AC Voltage, AC Current $\pm 3.5\%$ of full scale value.

Size: 203 x 165 x 95 mm

PRICE	CODE
£36.93	G055

MULTIMINOR MK. 5

SPECIFICATION

Current Ranges:
DC 100 μ A to 1A F.S.D. in 5 ranges.

Voltage Ranges:
AC 10V to 1,000V F.S.D. in 5 ranges
DC 100mV to 1,000V F.S.D. in 7 ranges

Resistance:
0 to 2M Ω in 2 ranges (first indication 5 Ω).

Sensitivity:
AC voltage ranges 1,000 Ω /V.
DC voltage ranges 10,000 Ω /V.

Accuracy:
AC voltage ranges 2.75% of F.S.D.
DC voltage and current ranges
2.25% of F.S.D.

Size: 197 x 102 x 41 mm.
Weight (including case): 0.675 kg.

CODE
G054

Carr/Pack 'B'



KEW.66 20,000 O.P.V. MULTI-METER

Brilliantly designed and engineered ... advanced circuitry with 28 measuring ranges. Exclusive Eagle overload protection circuit, sloping mirror scale for accurate read-out, sealed operating components with printed circuitry, positive action rotary range selector switch. Complete with test leads, batteries, manual, and fitted case.

DC volts: 0 to 1, 2.5, 5, 10, 25, 50, 100, 250, 500, 1000 V.
AC volts: 0 to 1, 2.5, 5, 10, 25, 50, 100, 250, 500, 1000 V.

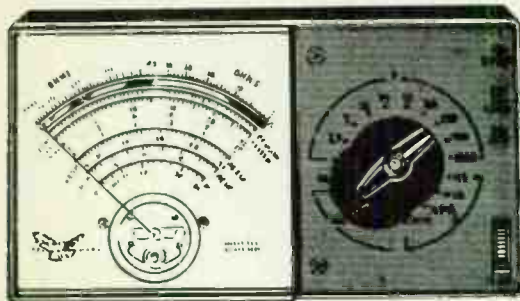
DC current: 0 to 50 μ A, 2.5 mA, 25 mA, 500 mA

Resistance: 0 to 5K, 50K, 500K, 5 meg.ohm
(Mid Scale): 50 ohm, 500 ohm, 5K, 50K.

Decibels: -20 to +22 db on 10V AC range.

Dimensions: 186 x 102 x 44 mm.

PRICE	CODE
£19.44	G056



CARRIAGE/PACKING 'B'

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

EP.10KN

10,000 O.P.V.
Multimeter
with Overload
Protection
Circuit and
Mirror Scale

PRICE	CODE
£13.41	G060

Carr/Pack 'B'



A really precision instrument at an economical price. 5 Multi-coloured scales, 19 test measurement ranges, exclusive 'EAGLE' Overload Protection Circuit and mirror scale, with test leads, batteries and manual.

SPECIFICATIONS:

DC Volts: 0 to 0.5, 2.5, 10, 50, 250, 500, 1000V (10,000 O.P.V.).
AC Volts: 0 to 10, 50, 250, 500, 1000V (4,000 O.P.V.).
DC Current: 0 to 100 μ A, 25 mA, 250 mA.
Resistance: ∞ to 3K, 300K, 7 meg.
Decibels: -10 to +22 dB.
Size: 128 x 82 x 35 mm approx.

MULTIMETER/ TRANSISTOR CHECKER

EP.100LN 100,000 O.P.V.
Band Suspension

PRICE	CODE
£33.11	G061



This is a precision instrument measuring up to laboratory standards in its sensitivity, but as rugged as ordinary bench instruments. Built-in socket for instant testing of transistors.

SPECIFICATIONS:

DC Volts: 0-0.12, 0.6, 3, 12, 30, 120, 600 V
AC Volts: 0-6, 30, 120, 600 V
DC Current: 0-12 μ A, 600 μ A, 12 mA, 300 mA, 12 A.
Resistance: 0-10K Ω , 0-1M Ω , 0-10M Ω
Decibels: -20db to +18db.
Transistor Ranges: (CO 0-12 μ A, Alpha 0-0.9965, Beta 0-280.
Dimensions: 165 x 125 x 6 mm

G21 20,000 OPV multi-meter

This inexpensive meter has a two-colour mirror scale and uses a bevel edge 90 degree movement for easy readout. With the sensitivity and overload protection of meters costing double, the G21 offers top value for money performance. Supplied complete with test leads, battery and operating manual.



PRICE	CODE
£12.24	G063

Carr/Pack 'B'

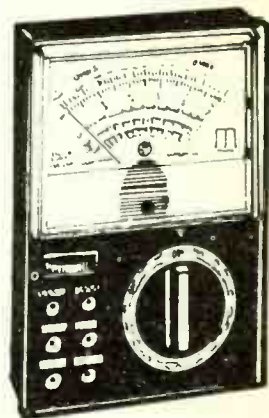
SPECIFICATIONS:

DC Volts: 0 to 5, 25, 125, 500, 1000 (20,000 O.P.V.)
AC Volts: 0 to 10, 50, 250, 1000 volts (10,000 O.P.V.)
DC Current: 0 to 50 μ A, 250 mA
Resistance: 0 to 60K, 6 Meg.
Decibels: -20 to +22 dB.
Dimensions: 120 x 78 x 27 mm.

Model G23

30,000 C.P.V.
Multimeter
with Overload
Protection
Circuit and
Mirror Scale

PRICE	CODE
£17.49	G064



The de luxe portable multimeter of advance performance and design provides wide voltage current resistance and dB ranges. Clearly visible on a large mirrored meter with coloured calibration. All multipliers used are 1% precision resistors for maximum accuracy and years of dependable service. 27 Test measurement ranges, 'EAGLE' Overload Protection Circuit with test leads, batteries and manual.

SPECIFICATIONS:

DC Volts: 0 to 0.6, 3, 12, 60, 300, 600, 1200, 3000 V (30,000 O.P.V.).
AC Volts: 0 to 6, 30, 120, 300, 1200V (10,000 O.P.V.)
DC Current: 0 to 30 μ A, 3mA, 30mA, 600mA.
Resistance: 0 to 8K, 800K, 8 meg.
Decibels: -20 to +17 dB.
Size: 102 x 156 x 40 mm approx.

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

C 3042 FIELD STRENGTH METER

A combination unit that will give relative field strength readings in forward and reflecting power. Co-axial fittings allow permanent installation for constant monitoring of transmitter output.

Impedance: 52 ohms.
Meter: 100uA two-colour scale.
Scale: SWR 1:1, 1:3
Dimensions: 153 x 50 x 70 mm



PRICE	CODE
10.10	G070

CARR/PACK 'A'

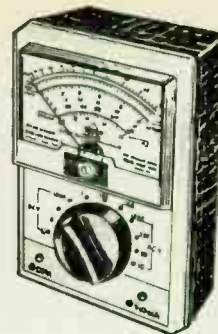
C.1000M MULTI-METER

A general purpose pocket size multimeter. Sensitivity 1,000 ohms per volt.

Ranges: Now with mirror scale

AC Volts: 10, 50, 250, 1,000 V
DC Volts: 10, 50, 250, 1000V
DC Current: 1 mA, 100 mA
Resistance: 0-150K ohms
Dimensions: 2 1/4" x 3 9/16" x 1 1/16"

Supplied complete with batteries, test prods and instructions.



PRICE	CODE
5.08	G074

Carr/Pack 'A'

KEW 500 INSULATION METER

A safe, heavy duty insulation tester and AC Voltmeter, the KEW.500 uses a transistorised generator to produce a test voltage of 500 volts. The large easy to read three colour meter scale also carries a battery check area. Supplied complete with test probes, batteries, fitted leather carrying case and built-in operating instructions.

Insulation Range: 0 to 100 meg ohms.
AC Volts: 0 to 150, 300, 600 V
Output Voltage: 500 volts.
Dimensions: 200 x 110 x 60 mm
Batteries: 8 x HP.7 or equivalent.
Weight: 750 gr.



PRICE	CODE
42.76	G071

Carr/Pack 'A'

K 200 FET MULTIMETER

Designed in the Eagle Laboratories for Technicians the K200 FET VOM represents a manufacturing breakthrough in offering a reasonably priced electronic multimeter. Stable and easy to use the K200 has an input resistance of 10 meg ohms complete with test leads, batteries and 12 page operating manual.

DC Voltage: 0 to 0.3, 1, 3, 10, 30, 100, 300, 1,000 V. (Input Resistance 10 Meg Ohms).

AC Voltage: 0 to 0.3, 1, 3, 10, 30, 100, 300, 1,000 V. (Input Resistance 10 Meg Ohms).

Frequency Response: 20 Hz to 3 MHz \pm 1 dB.

DC Current: 0 to 30 uA, 300 uA, 1mA, 3mA, 10mA, 30mA, 100mA, 300mA.

AC Current: 0 to 30 uA, 300 uA, 1mA, 3mA, 10mA, 30mA, 100mA, 300mA.
Resistance: 0 to 500 ohms, 5K, 50K, 500K, 5M, 500M.

Dimensions: 195 x 130 x 112 mm



PRICE	CODE
44.71	G075

Carr/Pack 'B'

KEW 8 and KEW 9 SNAP-ON METERS

Two heavy duty meters which enable you to measure high AC current without coming into actual contact with the source. Both units have locking pointers and rotary scales which allow you to read only the range coupled in. Both supplied complete with carrying case.

KEW 8

AC Amps: 0-6, 0-15, 0-40, 0-100, 0-300 amps.
AC Volts: 0-150, 0-300, 0-600 volts.
Resistance: 0-2Kohms, 25ohms (mid scale).
Internal jaw diameter: 24 mm (1 1/4 in).

KEW 9

AC Amps: 0-10, 0-30, 0-100, 0-300, 0-900 amps.
AC Volts: 0-150, 0-300, 0-750 volts.
Resistance: 0-2 K ohms, 25 ohms (mid scale).
Internal jaw diameter: 54 mm (2 1/8 in).



PRICE	CODE
29.16	G072

KEW 8

PRICE	CODE
33.88	G073

KEW 9

Carr/Pack 'A'

KEW 5 and KEW 6 SNAP-ON METERS

Compact accurate testers which measure AC amps without cutting the power or piercing the insulation and AC volts with convenient test probes. Both units are completely insulated and feature Eagle overload protection. KEW 6 incorporates a resistance range for speedy checkout of any circuit found defective. Both models supplied with fitted case and carrying strap.

KEW 5

AC amps: 0-5, 0-25 amps.
AC Volts: 0-150, 0-300, 0-600 volts.
Dimensions: 156 x 57 x 26 mm.
Internal jaw diameter: 27 mm (1").

KEW 6

AC Amps: 0-30, 0-150 amps.
AC Volts: 0-150, 0-300, 0-600 volts.
Resistance: 0-300 ohms, 25 ohms (mid scale).
Dimensions: 185 x 60 x 34 mm.
Internal jaw diameter: 27 mm (1").



PRICE	CODE
19.44	G076

KEW 5

PRICE	CODE
23.32	G077

KEW 6

Carr/Pack 'A'

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

ICE 680R The Revolutionary Supertester

The SUPERTESTER 680R is a completely new concept in measuring instruments. In itself a high quality test meter with eighty ranges on a 128mm mirror backed scale, it is also the basis of a complete measurement system. With the addition of the appropriate accessories it can measure a wide range of values including temperature, gauss and phase sequence. And there are other accessories to greatly extend the 680Rs range. The 680R System offers many advantages over conventional test meters, including tremendous versatility and economy. Use of the highest quality materials, strict control at each stage of production, and long experience and specialisation, all justify ICE's uncontested lead in the production of tester analysers. Complete with shockproof case for transport, including concealed compartment for leads etc.

FEATURING

- 20,000 ohm per volt sensitivity
- Fully screened against external magnetic fields
- Scale width and small case dimensions (128 x 95 x 32 mm)
- Accuracy and stability (1% in D.C., 2% in A.C.) of indicated reading
- Simplicity and ease of use and readability
- Full ranges of accessories
- 1000 times overload on the ohmetric ranges only
- Printed circuit board is removable without desoldering
- 10 fields of measurement and 80 ranges

SPECIFICATIONS

VOLTS A.C. 11 ranges:
2-10-50-250-1000-2500 Volts
and 4-20-100-500 & 2000 Volts

VOLTS D.C. 13 ranges:
100mV-2V-10-50-200-500-1000 Volts
200mV-4V-20-100-400 and 2000 Volts

AMP. D.C. 12 ranges:
50µA-500µA-5mA-50mA-500mA-5 Amp and
100µA-1mA-10mA-100mA-1Amp and 10 Amp

AMP. A.C. 10 ranges:
250µA-2.5mA-25mA-250mA-2.5 Amp and
500µA - 5mA - 50mA - 500mA - 5 Amp

OHMS 6 ranges:
x1-x10-x100-x1000-x10,000 and Low Ohms

DETECTOR REACTANCE 1 range: from 0 to 10 Megaohms

FREQUENCY OUTPUT 2 ranges:
from 0 to 500 and from 0 to 5000 Hz.

VOLTAGE OUTPUT 9 ranges: 10-50-250-1000-2500 V and 20-100-500-2000 Volts

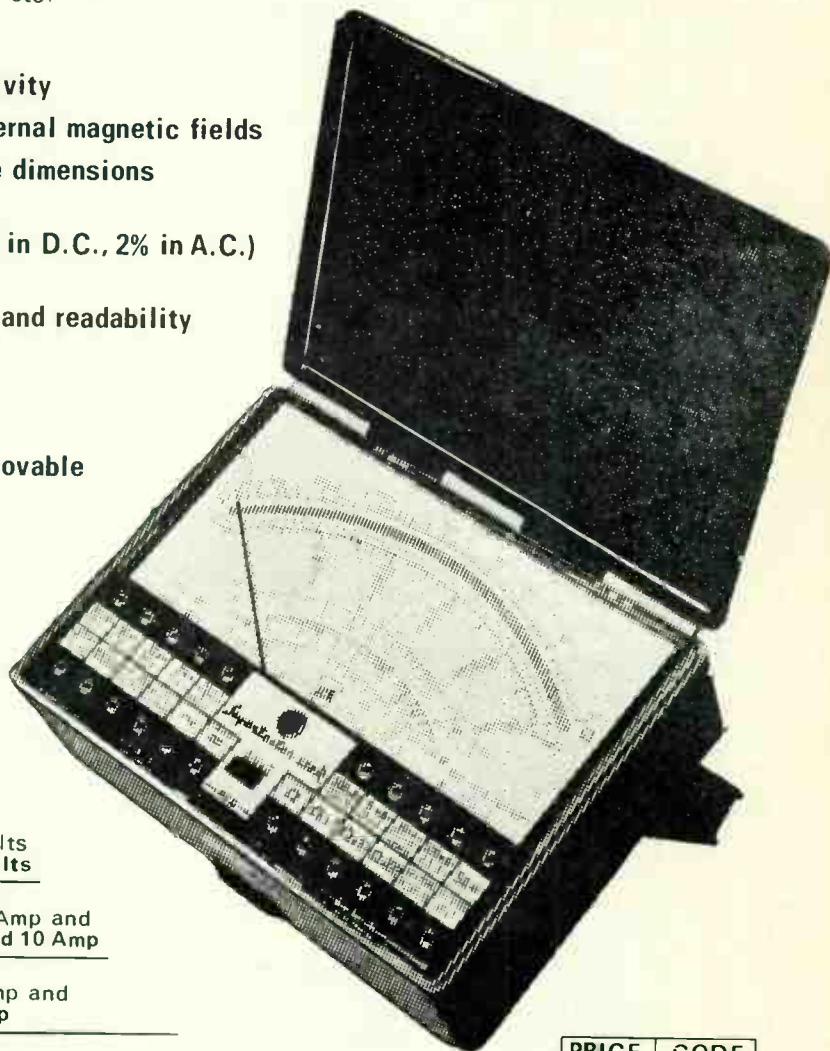
DECIBELS 10 ranges: from -24 to +70 db.

CAPACITY 6 ranges: from 0 to 50,000 and from 0 to 500,000 pF using the mains and from 0 to 20, from 0 to 200, from 0 to 2,000 and from 0 to 20,000 Microfarad using the incorporated 3 Volts battery.

Bold figures indicate A-V x 2

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.



PRICE	CODE
£19.98	G080

complete with case and probes

CARRIAGE/PACK 'B'

Accessories for ICE 680R Supertester

■ ELECTRONIC VOLT-OHMETER ICE 660B

TECHNICAL CHARACTERISTICS

C.C. voltage: 0.1-0.5-2.5-10-25-100-250-500-1000V
 Voltage p.p.: 2.5-10-25-100-250-500-100V
 C.C. Input Resistance: 11 Mohm on all ranges (1 Mohm on probe)
 Input impedance p.p.: 1.6. Mohm with about 10 pf in parallel
 Ohmic circuit.: Power supply with internal mercury battery of 1.4V. This circuit predetermines the readings on the Ohmic scale of the 680 meter, by multiplying by the indicated factors (Ohm x 10,000 x 100,000 x 1,000,000) which permit measurements of 10,000 Ohm to 10,000 Mohm.
Internal Power Supply. When the black plug is connected into the negative, automatically the 9V battery is switched on.
Screened Probe: Adjustable with three positions:
 V-D. C.; V. p.p.; Ohm.

PRICE	CODE
22.68	G084

complete with case and probes Carr/Pack 'A'



■ AMPERCLAMP

For current measurements in AC without switching off the circuit to be measured. For measurements on bare or insulated conductors up to 36mm diameter or bars up to 41 x 12 mm.

PRICE	CODE
12.90	G085

Carr/Pack 'A'

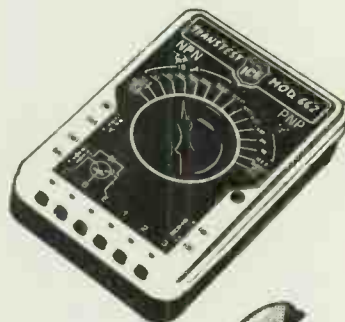


■ TRANSISTOR & DIODE TESTER TRANSTEST ICE 662

The Transtest 662 has 7 ranges in hFE in absolute value (5, 20, 50, 200, 500, 2000 and 5000) unlike competitive transistor testers which have only two ranges, relating to the measurement of co-efficient and amplification. These seven ranges in fact become 11 if considered in relation to the simple ranges of the base currents available. The Transtest 662, in conjunction with the Supertester 680, can carry out measurements of 20,000, 50 000, 20 000 and 500,000 hFE. With the Transtest 662 it is possible to measure I_{cbo} , I_{ebo} , I_{ceo} .
 Size: 126 x 85 x 28 mm Weight: 250 gms.

PRICE	CODE
12.90	G086

Carriage/Pack 'A'



■ AMPERTESTER MOD. 690 (Special order only)

For ammetric measurements in AC without the need to switch off the circuits. By rotating the various ranges commutator, the chosen scale immediately appears. This offers better legibility and eliminates errors. The indicator can be locked so that the reading is retained even after disconnecting the circuit under test. Ability of ammetric measurements in AC of bare or insulated connectors of up to 36mm diameter or bars up to 41 x 12mm. Size: 18.5 x 6.5 x 3 cm. Weight 400 gms. Case with shatter proof glass.

Perfect insulation up to 1000 V AC.

PRICE	CODE
42.66	G087

Carr/
Pack 'A'



Also available

- SIGNAL INJECTOR MOD.63
- HIGH VOLTAGE PROBE MOD.18
- TEMPERATURE PROBE MOD.36
- GAUSS METER MOD.27

PRICE	CODE
6.42	G088
6.42	G089
12.90	G090
12.90	G091

- PHASE SEQUENCE INDICATOR MOD.28
 - TRANSFORMER MOD.616
 - SHUNTS MOD.32,25,50 & 100A
- CARR/PACK on all above 'A'

PRICE	CODE
£6.42	G092
£7.56	G093
£4.86	G094

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

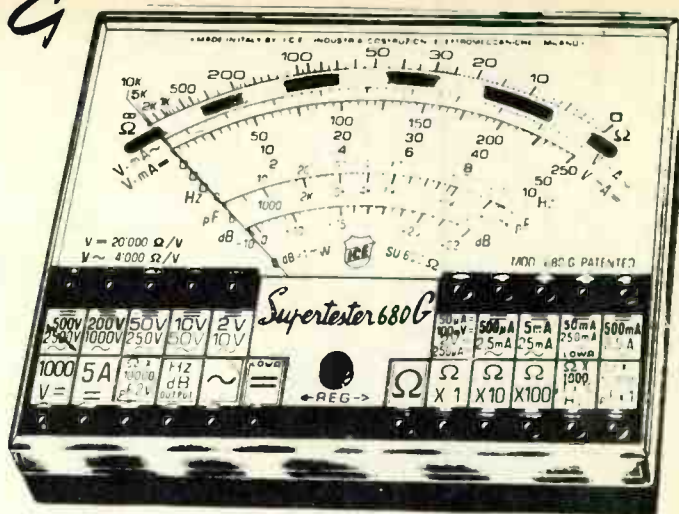
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.



(PATENTED) Supertester 680 G

sensitivity: 20,000 ohm/Volt
 precision: 2% DC+AC
 dimensions: 105 x 84 x 32 mm
 weight: 250 grams

- 20,000 ohm per volt sensitivity
- Fully screened against external magnetic fields
- Scale width and small case dimensions (105 x 84 x 32 mm)
- Accuracy and stability (2% in D.C., 2% in A.C.) of indicated reading
- Simplicity & ease of use & readability
- Full ranges of accessories
- 1000 times overload on the ohmetric ranges only
- Printed circuit board is removable without desoldering
- 10 fields of measurement & 48 ranges



PRICE	CODE
16.20	G099

Carriage/Pack '8'

TECHNICAL DATA

VOLTS D.C. 7 ranges:
 100mV-2V-10V-50V-200V-500V e 1000V
 (20kΩ/V)

VOLTS A.C. 6 ranges:
 2V-10V-50V-250V-1000V e 2500V (4kΩ/V)

AMP D.C. 6 ranges:
 50μA 500μA-5mA-50mA-500mA e 5A C.C.

AMP A.C. 5 ranges:
 250μA-2.5mA-25mA-250mA e 2.5 Amp. C.A.

OHMS 6 ranges:
 Ω: 10-Ωx1-Ωx10-Ωx100-Ωx1000-Ωx10000
 (per lettura da 1 decimo di Ohm fino a 100 Megaohms).

DETECTOR REACTANCE 1 range
 da 0 a 10 Megaohms

CAPACITY 4 ranges:
 da 0 a 5000 e da 0 a 500,000 pF-da 0 a 20 e da 0 a 200 Microfarad

FREQUENCY OUTPUT 2 ranges:
 0 ÷ 500 e 0 ÷ 5000 Hz

VOLTAGE OUTPUT 6 ranges:
 2V-10V-50V-250V-1000V e 250V

DECIBELS 5 ranges:
 da -10dB a + 62 dB

With more than 30 years of experience and study, ICE have now modified their best-selling test meter, model 680E to become their model 680G* Shockproof movement, with a compensated magnetic core provides a closed magnetic circuit screened against all external magnetic fields, with a mirror scale* All components are assembled on printed boards, and are easily removable without any desoldering* Uses the latest wire manganine and metallic film resistors of high stability and high precision (0.5%)* The special patented circuit ICE's own exclusive design) combines with a static suppressor to provide 1,000 times the overload on the ohmetric ranges only, and ohmetric circuit incorporates a fuse with a self-contained 100 spares* It is specially constructed for easy repair work, with interchangeable sections and all parts and components ex-stock* The instruction manual is well detailed and in the unlikely event of any repairs, is easy to follow* The tester comes in a protective case incorporating leads, and a range of supplementary accessories are available (same as for the Supertester 680R and Microtest Mod. 80).

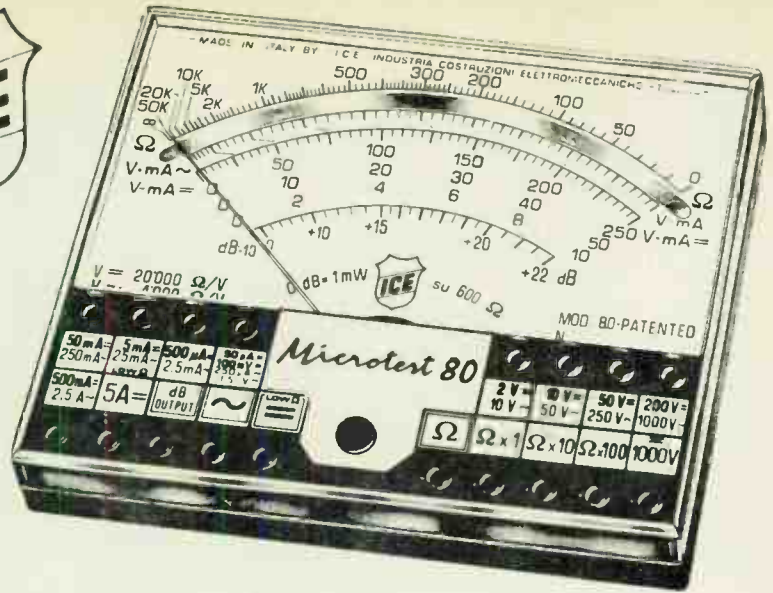
WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
 TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

the
80
microtest



The smallest precision tester in the world.

No bigger than a packet of cigarettes, the revolutionary new Microtest '80' combines all the techniques and skills of Italy's top instrument maker ICE into an accurate and precise tester. ■



Shockproof movement, with a compensated magnetic core provides a closed magnetic circuit screened against all external magnetic fields, with a mirror scale. ■

All components are assembled on printed boards, and are easily removable without any soldering. ■

Uses the latest wire manganin and metallic film resistors of high stability and high precision (0.5%) ■

No rotary switch. ■

The special patented circuit (ICE's own exclusive design) combines with a static suppressor to provide 1,000 times the overload on the ohmic ranges only, and ohmic circuit incorporates a fuse with a self-contained 100 spares. ■

With normal usage, the 1.35 V mercury battery will last for three years. ■

It is specially constructed for easy repair work, with interchangeable sections and all parts and components ex-stock. ■

The instruction manual is well detailed, and in the unlikely event of any repairs, is easy to follow—The tester comes in a protective case incorporating leads, and a range of supplementary accessories are available (same as for the Supertester 680R and 680G except for mod. 25). ■

ELECTRONIC ZERO OHM

- 20,000 ohm per volt sensitivity
- Fully screened against external magnetic fields
- Scale width and small case dimensions (90 x 70 x 18 mm)
- Accuracy and stability (2% in DC, 2% in AC) of indicated reading
- Simplicity and ease of use and readability
- Full ranges of accessories
- 1000 times overload on the ohmic ranges only
- Printed circuit board is removable without desoldering
- **8** fields of measurement and 40 ranges

NO : Rotary Switch

NO : Potentiometer

VOLT DC: 6 ranges: 100mV - 2V - 10V - 50V - 200V - 1000V (20 k Ω /V)

VOLT CA: 5 " 1.5V - 10V - 50V - 250V - 1000V (4 k Ω /V)

AMP. DC: 6 " 50μA - 500μA - 5mA - 50mA - 500mA - 5A

AMP. CA: 5 " 250μA - 2.5mA - 25mA - 250mA - 2.5A

OHM: 4 " Low Ω - Ω x 1 - Ω x 10 - Ω x 100 (da 1/10 di Ω fino a 5 Mega Ω)

V OUTPUT 5 " 1.5 V - 10V - 50V - 250V - 1000 V

DECIBELS: 5 " +6 dB, +22 dB, +36 dB, +50 dB, +62 dB

CAPACITY: 4 " 25μF - 250μF - 2500μF - 25,000μF

PRICE	CODE
£11.88	G102

P/C A

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRYPACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.



nombrex generators

WIDE RANGE AUDIO GENERATOR

Model 40

High stability low frequency generator operating in the range of 10 Hz to 100 KHz with stabilised output voltage up to 1 Volt pp.4 switched decade ranges.

Output voltage controlled by 3 position switch and continuous fine attenuator.

Basic circuit is a Wien - Bridge controlled sine wave oscillator and square wave is produced by means of a Schmitt trigger circuit.

SPECIFICATION

Frequency Ranges:	10 Hz .. 100 Hz
	100 Hz .. 1000 Hz (1 kHz)
	1 kHz .. 10 kHz
	10 kHz .. 100 kHz
	frequency accuracy \pm 5%.

Output Voltage:

1 millivolt p-p to 1 volt p-p \pm 3% for sine and square wave.

Impedance: 1 K ohm.

Distortion Factor:

0.2% for the sine wave output for the lower frequency range.

1.0% for the upper frequency range.

Rise Time:

0.1 microseconds for the square wave output in the lower frequency range, 0.3 microseconds in the upper frequency range.

Working Voltage:

9 Volt battery or external Power Supply Unit. Current load approximately 20 milliamperes.

Carriage/Pack '8'

PRICE	CODE
43.20	G106



WIDE RANGE RF SIGNAL GENERATOR

Model 42

A low priced R.F. Generator with numerous applications in the fields of radio, VHF and TV engineering. The wide frequency coverage divided into 8 ranges, covers from 150 kHz to 300 MHz. Ranges 1 to 7 are on fundamentals whereas range 8 is on harmonics. The output can be unmodulated, or modulated by means of an internal 400 Hz oscillator. The A.F. signal is available from a separate output socket. Both output sockets are provided with an isolating capacitor (500V D.C. max).

SPECIFICATION

Frequency Ranges:	150 kHz .. 430 kHz
	430 kHz .. 1.20 MHz
	1.1 MHz .. 3.6 MHz
	3.5 MHz .. 10.0 MHz
	10.0 MHz .. 31.0 MHz
	30.0 MHz .. 70.0 MHz
	55.0 MHz .. 150.0 MHz
	110.0 MHz .. 300.0 MHz

Accuracy: \pm 2%

R.F. Output Voltage: 50 millivolts minimum.

A.F. Output Voltage: Approximately 1 Volt at 800 Hz.

Working Voltage

9 Volt battery or external Power Supply Unit. Current load approximately 5 milliamperes.

Carriage/Pack 'B'

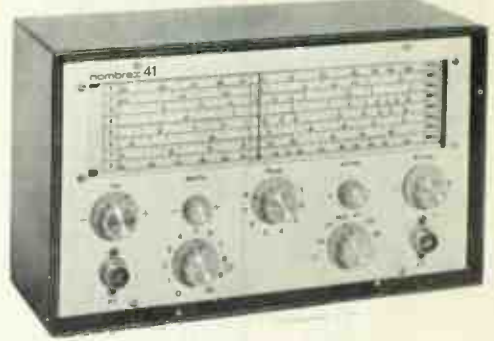
PRICE	CODE
32.40	G107

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

G15

World Radio History

MODEL 41 RF SIGNAL GENERATOR



RF generator for providing accurate and stable signals in the frequency range 150 kHz to 220 MHz.

The scale is clearly subdivided into 8 ranges thus permitting a clear and quick setting of the frequency required. Ease of tuning is assured by the 11-1 ratio, flywheel loaded, cursor drive. Greater accuracy can be obtained by using the additional scale setting control and built-in 1-MHz-quartz crystal oscillator.

Crystal oscillator signal is available at RF output socket. RF carrier can be internally and externally modulated from 0.5% - internal modulation frequency is variable between approximately 800 and 1200 Hz - AF output adjustable for level and frequency.

SPECIFICATION

Frequency Ranges:	147 kHz .. 455 kHz
	450 kHz .. 1.35 MHz
	1.3 MHz .. 4.2 MHz
	4.0 MHz .. 13.2 MHz
	13.0 MHz .. 45.0 MHz
	44.0 MHz .. 77.0 MHz
	75.0 MHz .. 130.0 MHz
	115.0 MHz .. 220.0 MHz

Scale Accuracy: 2% or \pm 0.1% when set against internal crystal calibrator.

RF Output Voltage: 50 millivolts minimum on all ranges.

AM Modulation: Internal and external from 0 to 50%.

AF Output: Variable for frequency and level.

Working Voltage:

9 Volt battery or external Power Supply Unit. Current load approximately 10 milliamperes.

Finish:

Robust steel case, blue hammered stoved enamel. Double anodised front panel, silver grey with black letter.

Dimensions:

240mmL x 140mmH x 100mmD.

Weight:

3½ lbs.

Carr/Pack 'B'

PRICE	CODE
55.68	G108

GENERAL - Each model (with the exception of Model 35) is powered by a 9 volt battery and a rear mounted socket is provided for operation from external battery or Power Supply Unit.

GUARANTEE - All instruments are guaranteed for a period of six months from purchase date against any defect or faulty manufacture, providing servicing is carried out by Nombrex (1969) Ltd.

FINISH - Robust steel case, blue hammered stoved enamel. Double anodised front panel, silver grey with black lettering.

DIMENSIONS - 240mmL x 140mmH x 100mmD.

ALL MODELS ARE TRANSISTORISED

nombrex equipment



MODEL 35 STABILISED POWER SUPPLY

The Type 35 is a mains operated short-circuit proof Stabilised Power Supply instrument ideally suitable for powering transistorised receivers, amplifiers, electronic test equipment and experimental circuits, and eliminates the inconvenience and expense of using dry batteries for prolonged test work.

The electronic regulation gives constant values of current and voltage. The values are separately adjusted and are indicated on the volt and ammeter fitted. Floating output—the positive or negative output can be earthed by linking the appropriate panel terminals. In the event of a short-circuit the instrument reverts to the same condition and output prior to the short-circuit.

SPECIFICATION

Current: Variable from 0-1 Amp.
 Voltage: Variable from 1-30 Volts.
 Residual Ripple: Less than 10 milli volts.
 Working Voltage: 220/240 volts, 50 c/s
 110/120 volts by request, on quantities.
 Output Terminals: Terminals are the 4 mm approved type.
 Protection: 2 Amp fuse fitted to front panel.

PRICE	CODE
56.16	G111

Carriage/Pack 'B'

MODEL 45 DIRECT READING FREQUENCY METER



This new unique low-priced instrument has been designed to measure frequencies in the range 10 Hz to 100 KHz simply and accurately and is an essential piece of equipment for School and Industrial Laboratories.

SPECIFICATION

Frequency Range: 10 Hz to 100 KHz in four decade ranges.

Input Sensitivity: 10mV to 5 Volts.
 Measurements independent of waveform.

Powered by 9 Volt battery.

Robust steel case.

Dimensions 240 mmL x 140mmH x 100mmD

PRICE	CODE
47.52	G112

Carriage/Pack 'B'



CAPACITY/ RESISTANCE BRIDGE

Model 43

The measuring ranges of this Capacity Resistance Bridge are 10 pF to 100 mfd capacity and 10 ohms to 10 meg-ohms. Measuring accuracy at the centre of the scale is $\pm 2\%$ except for capacities of 1 mfd and greater which are $\pm 5\%$ and $\pm 10\%$ at ends of effective scale.

The bridge amplifier gain control ensures a clear indication over the whole range of values.

A control operative on the highest capacity range gives power factor measurement from 0 to 70%.

Bridge balance is shown by means of a luminescent balance indicator tube.

A further switch position permits measurement of capacity leakage current.

SPECIFICATION

Resistance Ranges: 10 ohms
 centre scale value 1 K ohms
 1 K ohms
 centre scale value 10 K ohms
 10 K ohms
 centre scale value 100 K ohms
 100 K ohms
 centre scale value 1 meg ohms
 1 meg ohms
 centre scale value 1000 pF
 100 pF
 1000 pF
 centre scale value 0.1 mfd
 0.1 mfd
 centre scale value 1 mfd
 1 mfd

Capacity Ranges: 10 pF
 centre scale value 100 pF
 100 pF
 centre scale value 0.1 mfd
 0.1 mfd
 centre scale value 1 mfd
 1 mfd

Working Voltage: 9 Volt battery or external Power Supply Unit. Current load approximately 20 milliamperes

PRICE	CODE
28.08	G113

Carriage/Pack 'B'



INDUCTANCE BRIDGE

Model 44

Inductances from 1 micro H to 100 H in the LF and HF ranges are covered by this instrument.

The circuit comprises a source oscillator and amplifier, coupled to the bridge which follows the well-known Hay or Maxwell configuration selected by a panel control, and utilizes a miniature moving coil meter for balance indication.

SPECIFICATION

Measuring Ranges: 1 micro H .. 100H
 subdivided into 4 ranges from
 1 micro H .. 100 micro H
 100 micro H .. 10 milli H
 10 milli H .. 1 H
 1 H .. 100 H

measuring accuracy $\pm 5\%$
 Q-Factor: Q from 0.1 .. 1000 $\pm 10\%$
 (oscillator frequency 1592 Hz).

Loss Factor: tan from 10 .. 0.001 $\pm 10\%$

Working Voltage: 9 Volt battery or external Power Supply Unit. Current load approximately 15 milliamperes.

PRICE	CODE
41.04	G114

Carriage/Pack 'B'

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
 TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

AUDIO GENERATOR MODEL TE-22

Factory Calibrated and Tested

Low Distortion

Frequency Range
Sine: 20 cps—200Kc in 4 Bands
Square: 20 cps—25 Kc (Vernier Tuned)

Etched Circular Dial 4½"

Frequency Response: ± 1.5 DB.

60cps—150Kc Vernier Dial. Grey wrinkle steel case with leather carrying handle. Complete with a pair of test leads.



SPECIFICATIONS:

Frequency Range
Sine wave: 20—200,000 cps in 4 bands
Square wave: 60—30,000 cps.
Output Voltage: (Variable) Sine: 7 volt. Square: 7 volt P-P
Output Impedance: 1,000 ohm
Frequency Accuracy: ± 5
Distortion: Less than 2%
Tube Complement: 6BM8, 12AT7, 6X4.
Power Requirements: 105—125V, 220—240V AC 50/60 cps. 19W
Dimensions: 193 mmH x 265mmW x 150mmD
Net Weight: 3.5 Kg.

MODEL TE-22

Carr/Pack 'B'

CODE
G117

DE-LUXE AUDIO GENERATOR

MODEL TE22D (Matching TE20D below)

Output voltage: Sine Wave 7 volts(RMS)
Square Wave 7 volts(P-P)
Distortion: Less than 2%
Tube complement: 6BM8, 12AT7, 6 x 4
Attenuator: 4—range 1/1, 1/10, 1/100, 1/1000
Accessory: 1—Output cable
Power supply: a.c. 50/60 cps 220—240 volts
19 watts
Dimensions: 215 x 170 x 140mm
Net Weight: 3 Kgs.



SPECIFICATIONS:

Frequency range:
Sine Wave — 20 to 200,000c/s in 4 bands.
Square Wave — 20 to 30,000cps
Frequency Response ±1½ dB
Output Impedance: 1 Kohm.
Frequency Accuracy: ±5%

(Also see Model TE22)

TE22D

CODE
G118

Carriage Pack 'B'

RF SIGNAL GENERATOR

MODEL TE-20 D (Matching TE22D above)

- * Factory calibrated and tested
- * Dual output RF terminals
- * Separate variable Audio output
- * Employs a X'tal socket and can be used as
(a) Self-Calibration
(b) Market Generator

Printed Circuit for uniform characteristics

Power source: 105/125, 220/240 volts a.c.,
50/60 cps 12 watts.

Dimensions: 140 x 215 x 170mm
Weight: 2.8 kg



SPECIFICATIONS:

Frequency range: 120kc/s — 500mc/s (6 Fundamental Bands and 1 Harmonic Band)
Frequency accuracy: ±2%
Audio output: to 8 volts
Internal modulation: Approx. 400c/s
Tube complement: 12BH7A, 6AR5, Silicon Diode and Germanium Diode

TE20D

CODE
G119

Carriage/Pack 'B'

AC MILLIVOLTMETER

MODEL TE-40

High Sensitivity V.T.V.M.
Suitable to measuring Audio Circuits and Low Level a.c. Voltages up to 1 Mc/s.



SPECIFICATIONS:

A.C. V: 1 mV—300 VRMS (1 0Range).
Accuracy: 5 cps 1.2 MC±2 —25db); 10 cps. 1MC ±1 db; 20 cps. 250 KC ±0.2 db.
db. Scale: —40, —30, —20, —10, 0, 10, 20, 30, 40, 50dbm.
Power Source: 105—125, 220—240 V a.c. 50/60 cps.
Dimensions: 140 x 215 x 170mm.
Weight: 2.5 kg.

TE40

CODE
G120

Carriage/Pack 'B'

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

C 3042 FIELD STRENGTH METER

A combination unit that will give relative field strength readings in forward and reflecting power. Co-axial fittings allow permanent installation for constant monitoring of transmitter output.

Impedance: 52 ohms.
Meter: 100uA two-colour scale.
Scale: SWR 1:1, 1:3
Dimensions: 153 x 50 x 70mm



PRICE	CODE
10.10	G070

CARR/PACK 'A'

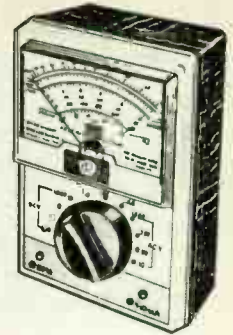
C.1000M MULTI-METER

A general purpose pocket size multimeter. Sensitivity 1,000 ohms per volt.

Ranges: Now with mirror scale

AC Volts: 10, 50, 250, 1,000 V
DC Volts: 10, 50, 250, 1000V
DC Current: 1 mA, 100mA
Resistance: 0-150K ohms
Dimensions: 2 1/4" x 3 1/16" x 1 1/16"

Supplied complete with batteries, test prods and instructions.



PRICE	CODE
5.08	G074

Carr/Pack 'A'

KEW 500 INSULATION METER

A safe, heavy duty insulation tester and AC Voltmeter, the KEW.500 uses a transistorised generator to produce a test voltage of 500 volts. The large easy to read three colour meter scale also carries a battery check area. Supplied complete with test probes, batteries, fitted leather carrying case and built-in operating instructions.

Insulation Range: 0 to 100 meg ohms.
AC Volts: 0 to 150, 300, 600 V
Output Voltage: 500 volts.
Dimensions: 200 x 110 x 60mm
Batteries: B x HP.7 or equivalent.
Weight: 750 gr.



PRICE	CODE
42.76	G071

Carr/Pack 'A'

K 200 FET MULTIMETER

Designed in the Eagle Laboratories for Technicians the K200 FET VOM represents a manufacturing breakthrough in offering a reasonably priced electronic multimeter. Stable and easy to use the K200 has an input resistance of 10 meg ohms complete with test leads, batteries and 12 page operating manual.

DC Voltage: 0 to 0.3, 1, 3, 10, 30, 100, 300, 1,000 V. (Input Resistance 10 Meg Ohms).

AC Voltage: 0 to 0.3, 1, 3, 10, 30, 100, 300, 1,000 V. (Input Resistance 10 Meg Ohms).

Frequency Response: 20 Hz to 3 MHz ± 1 dB.

DC Current: 0 to 30 uA, 300 uA, 1mA, 3mA, 10mA, 30mA, 100mA, 300mA.

AC Current: 0 to 30 uA, 300 uA, 1mA, 3mA, 10mA, 30mA, 100mA, 300mA.

Resistance: 0 to 500 ohms, 5K, 50K, 500K, 5M, 500M.

Dimensions: 195 x 130 x 112mm



PRICE	CODE
44.71	G075

Carr/Pack 'B'

KEW 8 and KEW 9 SNAP-ON METERS

Two heavy duty meters which enable you to measure high AC current without coming into actual contact with the source. Both units have locking pointers and rotary scales which allow you to read only the range coupled in. Both supplied complete with carrying case.

KEW 8

AC Amps: 0-6, 0-15, 0-40, 0-100, 0-300 amps.

AC Volts: 0-150, 0-300, 0-600 volts.

Resistance: 0.2Kohms, 25ohms (mid scale).

Internal jaw diameter: 24mm (1 1/4 in).

KEW 9

AC Amps: 0-10, 0-30, 0-100, 0-300, 0-900 amps.

AC Volts: 0-150, 0-300, 0-750 volts.

Resistance: 0-2 Kohms, 25 ohms (mid scale).

Internal jaw diameter: 54mm (2 1/8 in).



PRICE	CODE
29.16	G072

PRICE	CODE
38.88	G073

Carr/Pack 'A'

KEW 5 and KEW 6 SNAP-ON METERS

Compact accurate testers which measure AC amps without cutting the power or piercing the insulation and AC volts with convenient test probes. Both units are completely insulated and feature Eagle overload protection. KEW 6 incorporates a resistance range for speedy checkout of any circuit found defective. Both models supplied with fitted case and carrying strap.

KEW 5

AC amps: 0-5, 0-25 amps.

AC Volts: 0-150, 0-300, 0-600 volts.

Dimensions: 156 x 57 x 26 mm.

Internal jaw diameter: 27mm (1").

KEW 6

AC Amps: 0-30, 0-150 amps.

AC Volts: 0-150, 0-300, 0-600 volts.

Resistance: 0-300 ohms, 25 ohms (mid scale).

Dimensions: 185 x 60 x 34 mm.

Internal jaw diameter: 27mm (1").



PRICE	CODE
19.44	G076

PRICE	CODE
23.32	G077

KEW 5

KEW 6

Carr/Pack 'A'

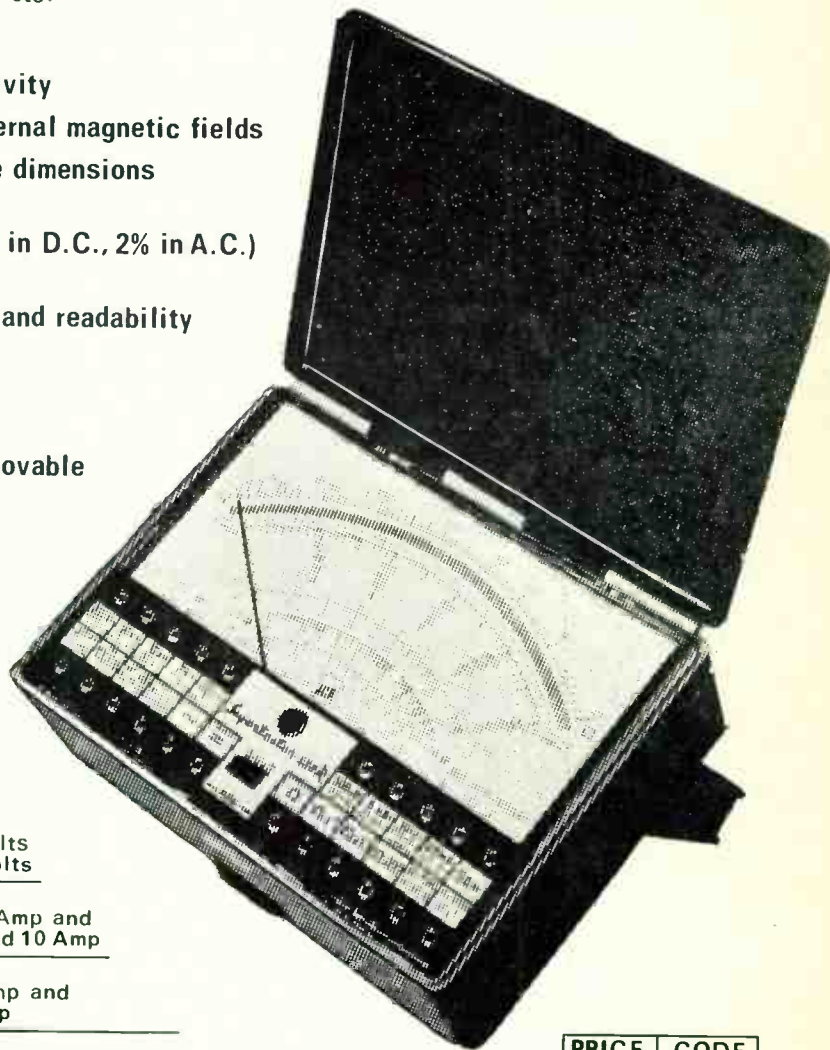
WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

ICE 680R The Revolutionary Supertester

The SUPERTESTER 680R is a completely new concept in measuring instruments. In itself a high quality test meter with eighty ranges on a 128mm mirror backed scale, it is also the basis of a complete measurement system. With the addition of the appropriate accessories it can measure a wide range of values including temperature, gauss and phase sequence. And there are other accessories to greatly extend the 680Rs range. The 680R System offers many advantages over conventional test meters, including tremendous versatility and economy. Use of the highest quality materials, strict control at each stage of production, and long experience and specialisation, all justify ICE's uncontested lead in the production of tester analysers. Complete with shockproof case for transport, including concealed compartment for leads etc.

FEATURING

- 20,000 ohm per volt sensitivity
- Fully screened against external magnetic fields
- Scale width and small case dimensions (128 x 95 x 32 mm)
- Accuracy and stability (1% in D.C., 2% in A.C.) of indicated reading
- Simplicity and ease of use and readability
- Full ranges of accessories
- 1000 times overload on the ohmmetric ranges only
- Printed circuit board is removable without desoldering
- 10 fields of measurement and 80 ranges



SPECIFICATIONS

VOLTS A.C. 11 ranges:
2-10-50-250-1000-2500 Volts
and 4-20-100-500 & 2000 Volts

VOLTS D.C. 13 ranges:
100mV-2V-10-50-200-500-1000 Volts
200mV-4V-20-100-400 and 2000 Volts

AMP. D.C. 12 ranges:
50μA-500μA-5mA-50mA-500mA-5 Amp and
100μA-1mA-10mA-100mA-1Amp and 10 Amp

AMP. A.C. 10 ranges:
250μA-2.5mA-25mA-250mA-2.5 Amp and
500μA -5mA -50mA -500mA -5 Amp

OHMS 6 ranges:
x1-x10-x100-x1000-x10,000 and Low Ohms

DETECTOR REACTANCE 1 range: from 0 to 10 Megaohms

FREQUENCY OUTPUT 2 ranges:
from 0 to 500 and from 0 to 5000 Hz.

VOLTAGE OUTPUT 9 ranges: 10-50-250-1000-2500 V and 20-100-500-2000 Volts

DECIBELS 10 ranges: from -24 to +70 db.

CAPACITY 6 ranges: from 0 to 50,000 and from 0 to 500,000 pF using the mains and from 0 to 20, from 0 to 200, from 0 to 2,000 and from 0 to 20,000 Microfarad using the incorporated 3 Volts battery.

Bold figures indicate A-V x 2

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.

TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

PRICE	CODE
£19.98	G080

complete with case and probes

CARRIAGE/PACK 'B'

Accessories for ICE 680R Supertester

■ ELECTRONIC VOLT-OHMETER ICE 660B

TECHNICAL CHARACTERISTICS

C.C. voltage: 0.1-0.5 2.5-10-25-100-250-500-1000V
 Voltage p.p.: 2.5-10-25-100-250-500-100V
 C.C. Input Resistance: 11 Mohm on all ranges (1 Mohm on probe)
 Input impedance p.p.: 1.6. Mohm with about 10 pf in parallel
 Ohmic circuit.: Power supply with internal mercury battery of 1.4V. This circuit predetermines the readings on the Ohmic scale of the 680 meter, by multiplying by the indicated factors (Ohm x 10,000 x 100,000 x 1,000,000) which permit measurements of 10,000 Ohm to 10,000 Mohm. Internal Power Supply. When the black plug is connected into the negative, automatically the 9V battery is switched on. Screened Probe: Adjustable with three positions: V-D.C.; V.p.p.; Ohm.

PRICE	CODE
22.68	G084

complete with case and probes Carr/Pack 'A'



■ AMPERCLAMP

For current measurements in AC without switching off the circuit to be measured. For measurements on bare or insulated conductors up to 36mm diameter or bars up to 41 x 12 mm.

PRICE	CODE
12.90	G085

Carr/Pack 'A'

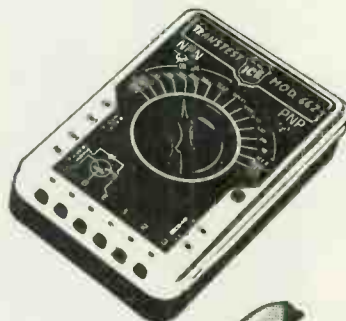


■ TRANSISTOR & DIODE TESTER TRANSTEST ICE 662

The Transtest 662 has 7 ranges in hFE in absolute value (5, 20, 50, 200, 500, 2000 and 5000) unlike competitive transistor testers which have only two ranges, relating to the measurement of α -efficient and amplification. These seven ranges in fact become 11 if considered in relation to the simple ranges of the base currents available. The Transtest 662, in conjunction with the Supertester 680, can carry out measurements of 20,000, 50 000, 20 000 and 500,000 hFE. With the Transtest 662 it is possible to measure I_{cbo} , I_{ebo} , I_{ceo} . Size: 126 x 85 x 28 mm Weight: 250 gms.

PRICE	CODE
12.90	G086

Carriage/Pack 'A'

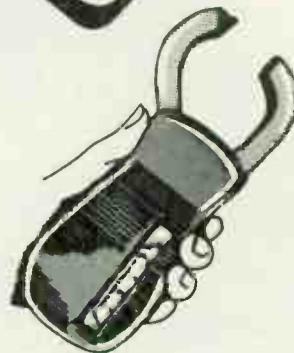


■ AMPERTESTER MOD. 690 (Special order only)

For ammetric measurements in AC without the need to switch off the circuits. By rotating the various ranges commutator, the chosen scale immediately appears. This offers better legibility and eliminates errors. The indicator can be locked so that the reading is retained even after disconnecting the circuit under test. Ability of ammetric measurements in AC of bare or insulated connectors of up to 36mm diameter or bars up to 41 x 12mm. Size: 18.5 x 6.5 x 3 cm. Weight 400 gms. Case with shatter proof glass.

PRICE	CODE
42.66	G087

Perfect insulation up to 1000 V AC. Carr/Pack 'A'



Also available

- SIGNAL INJECTOR MOD.63
- HIGH VOLTAGE PROBE MOD.18
- TEMPERATURE PROBE MOD.36
- GAUSS METER MOD.27

PRICE	CODE
6.42	G088
6.42	G089
12.90	G090
12.90	G091

- PHASE SEQUENCE INDICATOR MOD.28
- TRANSFORMER MOD.616
- SHUNTS MOD.32,25,50 & 100A

CARR/PACK on all above 'A'

PRICE	CODE
£6.42	G092
£7.56	G093
£4.86	G094

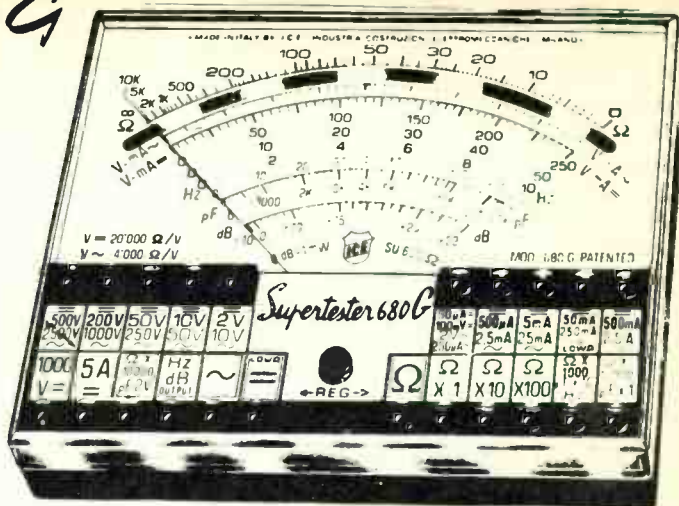
WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
 TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.



(PATENTED) Supertester 680 G

sensitivity: 20,000 ohm/Volt
 precision: 2% DC+AC
 dimensions: 105 x 84 x 32 mm
 weight: 250 grams

- 20,000 ohm per volt sensitivity
- Fully screened against external magnetic fields
- Scale width and small case dimensions (105 x 84 x 32 mm)
- Accuracy and stability (2% in D.C., 2% in A.C.) of indicated reading
- Simplicity & ease of use & readability
- Full ranges of accessories
- 1000 times overload on the ohmmetric ranges only
- Printed circuit board is removable without desoldering
- 10 fields of measurement & 48 ranges



PRICE	CODE
16.20	G099

Carriage/Pack 'B'

G

TECHNICAL DATA

VOLTS D.C.	7 ranges:
100mV-2V-10V-50V-200V-500V. e 1000V (20 kΩ/V)	
VOLTS A.C.	6 ranges:
2V-10V-50V-250V-1000V e 2500V (4k Ω/V)	
AMP D.C.	6 ranges:
50μA 500μA-5mA-50mA-500mA e 5A C.C.	
AMP A.C.	5 ranges:
250μA-2.5mA-25mA-250mA e 2.5 Amp. C.A.	
OHMS	6 ranges:
Ω:10-Ωx1-Ωx10-Ωx100-Ωx1000-Ωx10000 (per lettura da 1 decimo di Ohm fino a 100 Megaohms).	
DETECTOR REACTANCE	1 range
da 0 a 10 Megaohms	
CAPACITY	4 ranges:
da 0 a 5000 e da 0 a 500,000 pF-da 0 a 20 e da 0 a 200 Microfarad	
FREQUENCY OUTPUT	2 ranges:
0 ÷ 500 e 0 ÷ 5000 Hz	
VOLTAGE OUTPUT	6 ranges:
2V-10V-50V-250V-1000V e 250V	
DECIBELS	5 ranges:
da -10 dB a + 62 dB	

With more than 30 years of experience and study, ICE have now modified their best-selling test meter, model 680E to become their model 680G* Shockproof movement, with a compensated magnetic core provides a closed magnetic circuit screened against all external magnetic fields, with a mirror scale* All components are assembled on printed boards, and are easily removable without any desoldering* Uses the latest wire manganine and metallic film resistors of high stability and high precision (0.5%)* The special patented circuit ICE's own exclusive design) combines with a static suppressor to provide 1,000 times the overload on the ohmmetric ranges only, and ohmmetric circuit incorporates a fuse with a self-contained 100 spares* It is specially constructed for easy repair work, with interchangeable sections and all parts and components ex-stock* The instruction manual is well detailed and in the unlikely event of any repairs, is easy to follow* The tester comes in a protective case incorporating leads, and a range of supplementary accessories are available (same as for the Supertester 680R and Microtest Mod. 80).

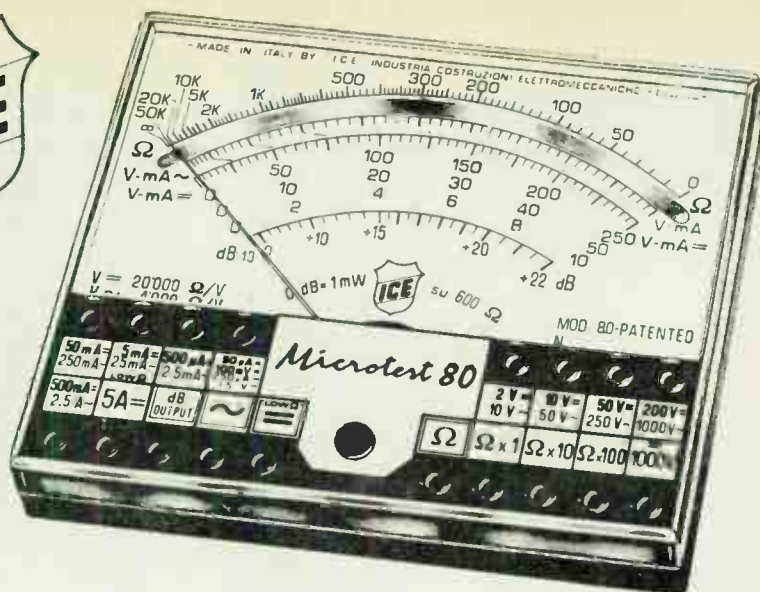
WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
 TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

the
80
microtest



The smallest precision tester in the world.

No bigger than a packet of cigarettes, the revolutionary new Microtest '80' combines all the techniques and skills of Italy's top instrument maker ICE into an accurate and precise tester. ■



Shockproof movement, with a compensated magnetic core provides a closed magnetic circuit screened against all external magnetic fields, with a mirror scale. ■

All components are assembled on printed boards, and are easily removable without any soldering. ■

Uses the latest wire manganine and metallic film resistors of high stability and high precision (0.5%) ■

No rotary switch. ■

The special patented circuit (ICE's own exclusive design) combines with a static suppressor to provide 1,000 times the overload on the ohmic ranges only, and ohmic circuit incorporates a fuse with a self-contained 100 spares. ■

With normal usage, the 1.35 V mercury battery will last for three years. ■

It is specially constructed for easy repair work, with interchangeable sections and all parts and components ex-stock. ■

The instruction manual is well detailed, and in the unlikely event of any repairs, is easy to follow — The tester comes in a protective case incorporating leads, and a range of supplementary accessories are available (same as for the Supertester 680R and 680G except for mod. 25).

PRICE	CODE
£11.88	G102

P/C A

ELECTRONIC ZERO OHM

- 20,000 ohm per volt sensitivity
- Fully screened against external magnetic fields
- Scale width and small case dimensions (90 x 70 x 18 mm)
- Accuracy and stability (2% in DC, 2% in AC) of indicated reading
- Simplicity and ease of use and readability
- Full ranges of accessories
- 1000 times overload on the ohmic ranges only
- Printed circuit board is removable without desoldering
- **8** fields of measurement and 40 ranges

NO : Rotary Switch

NO : Potentiometer

VOLT DC:	6	ranges:	100mV—2V—10V—50V—200V—1000V (20 k Ω/V)
VOLT CA:	5	"	1.5V—10V—50V—250V—1000V (4 k Ω/V)
AMP. DC:	6	"	50μA—500μA—5mA—50mA—500mA—5A
AMP. CA:	5	"	250μA—2.5mA—25mA—250mA—2.5A
OHM:	4	"	Low Ω—Ω x 1—Ω x 10—Ω x 100 (da 1/10 di Ω fino a 5 Mega Ω)
V OUTPUT	5	"	1.5 V—10V—50V—250V—1000V
DECIBELS:	5	"	+6 dB, +22 dB, +36 dB, +50 dB, +62 dB
CAPACITY:	4	"	25μF—250μF—2500μF—25,000μF

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.



nombrex generators

WIDE RANGE AUDIO GENERATOR

Model 40

High stability low frequency generator operating in the range of 10 Hz to 100 KHz with stabilised output voltage up to 1 Volt pp.4 switched decade ranges.

Output voltage controlled by 3 position switch and continuous fine attenuator.

Basic circuit is a Wien - Bridge controlled sine wave oscillator and square wave is produced by means of a Schmitt trigger circuit.

SPECIFICATION

Frequency Ranges:	10 Hz ..	100 Hz
	100 Hz ..	1000 Hz (1 kHz)
	1 kHz ..	10 kHz
	10 kHz ..	100 kHz
	frequency accuracy \pm 5%.	

Output Voltage:

1 millivolt p-p to 1 volt p-p \pm 3% for sine and square wave.

Impedance: 1 K ohm.

Distortion Factor:

0.2% for the sine wave output for the lower frequency range,

1.0% for the upper frequency range.

Rise Time:

0.1 microseconds for the square wave output in the lower frequency range, 0.3 microseconds in the upper frequency range.

Working Voltage:

9 Volt battery or external Power Supply Unit. Current load approximately 20 milliamperes.

Carriage/Pack 'B'

PRICE	CODE
43.20	G106



WIDE RANGE RF SIGNAL GENERATOR

Model 42

A low priced R.F. Generator with numerous applications in the fields of radio, VHF and TV engineering. The wide frequency coverage divided into 8 ranges, covers from 150 kHz to 300 MHz. Ranges 1 to 7 are on fundamentals whereas range 8 is on harmonics. The output can be unmodulated, or modulated by means of an internal 400 Hz oscillator. The A.F. signal is available from a separate output socket. Both output sockets are provided with an isolating capacitor (500V D.C. max).

SPECIFICATION

Frequency Ranges:	150 kHz ..	430 kHz
	430 kHz ..	1.20 MHz
	1.1 MHz ..	3.6 MHz
	3.5 MHz ..	10.0 MHz
	10.0 MHz ..	31.0 MHz
	30.0 MHz ..	70.0 MHz
	55.0 MHz ..	150.0 MHz
	110.0 MHz ..	300.0 MHz

Accuracy: \pm 2%

R.F. Output Voltage: 50 millivolts minimum.

A.F. Output Voltage: Approximately 1 Volt at 800 Hz.

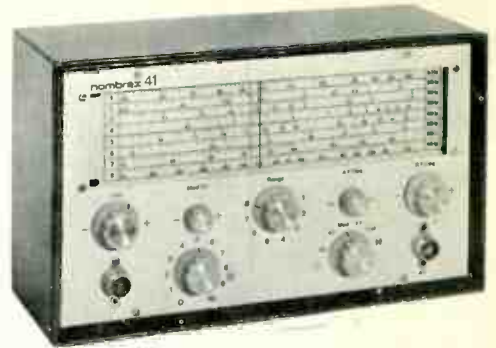
Working Voltage

9 Volt battery or external Power Supply Unit. Current load approximately 5 milliamperes.

Carriage/Pack 'B'

PRICE	CODE
32.40	G107

MODEL 41 RF SIGNAL GENERATOR



RF generator for providing accurate and stable signals in the frequency range 150 kHz to 220 MHz.

The scale is clearly subdivided into 8 ranges thus permitting a clear and quick setting of the frequency required. Ease of tuning is assured by the 11-1 ratio, flywheel loaded, cursor drive. Greater accuracy can be obtained by using the additional scale setting control and built-in 1-MHz-quartz crystal oscillator.

Crystal oscillator signal is available at RF output socket. RF carrier can be internally and externally modulated from 0.5% - internal modulation frequency is variable between approximately 800 and 1200 Hz - AF output adjustable for level and frequency.

SPECIFICATION

Frequency Ranges:	147 kHz ..	455 kHz
	450 kHz ..	1.35 MHz
	1.3 MHz ..	4.2 MHz
	4.0 MHz ..	13.2 MHz
	13.0 MHz ..	45.0 MHz
	44.0 MHz ..	77.0 MHz
	75.0 MHz ..	130.0 MHz
	115.0 MHz ..	220.0 MHz

Scale Accuracy: 2% or \pm 0.1% when set against internal crystal calibrator.

RF Output Voltage: 50 millivolts minimum on all ranges.

AM Modulation: Internal and external from 0 to 50%.

AF Output: Variable for frequency and level.

Working Voltage: 9 Volt battery or external Power Supply Unit. Current load approximately 10 milliamperes.

Finish: Robust steel case, blue hammered stoved enamel. Double anodised front panel, silver grey with black letter.

Dimensions: 240mmL x 140mmH x 100mmD.

Weight: 3½ lbs.

PRICE	CODE
55.68	G108

Carr/Pack 'B'

GENERAL - Each model (with the exception of Model 35) is powered by a 9 volt battery and a rear mounted socket is provided for operation from external battery or Power Supply Unit.

GUARANTEE - All instruments are guaranteed for a period of six months from purchase date against any defect or faulty manufacture, providing servicing is carried out by Nombrex (1969) Ltd.

FINISH - Robust steel case, blue hammered stoved enamel. Double anodised front panel, silver grey with black lettering.

DIMENSIONS - 240mmL x 140mmH x 100mmD.

ALL MODELS ARE TRANSISTORISED

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

nombrex equipment



MODEL 35 STABILISED POWER SUPPLY

The Type 35 is a mains operated short-circuit proof Stabilised Power Supply instrument ideally suitable for powering transistorised receivers, amplifiers, electronic test equipment and experimental circuits, and eliminates the inconvenience and expense of using dry batteries for prolonged test work.

The electronic regulation gives constant values of current and voltage. The values are separately adjusted and are indicated on the volt and ammeter fitted. Floating output—the positive or negative output can be earthed by linking the appropriate panel terminals. In the event of a short-circuit the instrument reverts to the same condition and output prior to the short-circuit.

SPECIFICATION

Current: Variable from 0-1 Amp.
 Voltage: Variable from 1-30 Volts.
 Residual Ripple: Less than 10 milli volts.
 Working Voltage: 220/240 volts, 50 c/s
 110/120 volts by request, on quantities.

Output Terminals: Terminals are the 4 mm approved type.
 Protection: 2 Amp fuse fitted to front panel.

PRICE	CODE
56.16	G111

Carriage/Pack 'B'

MODEL 45 DIRECT READING FREQUENCY METER



This new unique low-priced instrument has been designed to measure frequencies in the range 10 Hz to 100 KHz simply and accurately and is an essential piece of equipment for School and Industrial Laboratories.

SPECIFICATION

Frequency Range: 10 Hz to 100 KHz in four decade ranges.

Input Sensitivity: 10mV to 5 Volts.

Measurements independent of waveform.

Powered by 9 Volt battery.

Robust steel case.

Dimensions 240 mmL x 140mmH x 100mmD

PRICE	CODE
47.52	G112

Carriage/Pack 'B'



CAPACITY/ RESISTANCE BRIDGE

Model 43

The measuring ranges of this Capacity Resistance Bridge are 10 pF to 100 mfd capacity and 10 ohms to 10 meg-ohms. Measuring accuracy at the centre of the scale is $\pm 2\%$ except for capacities of 1 mfd and greater which are $\pm 5\%$ and $\pm 10\%$ at ends of effective scale.

The bridge amplifier gain control ensures a clear indication over the whole range of values.

A control operative on the highest capacity range gives power factor measurement from 0 to 70%.

Bridge balance is shown by means of a luminescent balance indicator tube.

A further switch position permits measurement of capacity leakage current.

SPECIFICATION

Resistance Ranges: 10 ohms
 centre scale value 1 K ohms
 1 K ohms
 centre scale value 100 K ohms
 100 K ohms
 centre scale value 10 meg.ohms
 10 meg.ohms
 centre scale value 1 meg ohm
 1 meg ohm

Capacity Ranges: 10 pF
 centre scale value 100 pF
 1000 pF
 centre scale value 0.1 mfd
 0.1 mfd
 centre scale value 1 mfd
 1 mfd

Working Voltage: 9 Volt battery or external Power Supply Unit. Current load approximately 20 milliamperes

PRICE	CODE
28.08	G113

Carriage/Pack 'B'



INDUCTANCE BRIDGE

Model 44

Inductances from 1 micro H to 100 H in the LF and HF ranges are covered by this instrument.

The circuit comprises a source oscillator and amplifier, coupled to the bridge which follows the well-known Hay or Maxwell configuration selected by a panel control, and utilizes a miniature moving coil meter for balance indication.

SPECIFICATION

Measuring Ranges: 1 micro H .. 100H
 subdivided into 4 ranges from
 1 micro H .. 100 micro H
 100 micro H .. 10 milli H
 10 milli H .. 1 H
 1 H .. 100 H

measuring accuracy $\pm 5\%$
 Q-Factor: Q from 0.1 .. 1000 $\pm 10\%$
 (oscillator frequency 1592 Hz).

Loss Factor: tan from 10 .. 0.001 $\pm 10\%$

Working Voltage: 9 Volt battery or external Power Supply Unit. Current load approximately 15 milliamperes.

PRICE	CODE
41.04	G114

Carriage/Pack 'B'

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
 TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

AUDIO GENERATOR MODEL TE-22

Factory Calibrated and Tested

Low Distortion

Frequency Range
Sine: 20 cps—200Kc in 4 Bands
Square: 20 cps—25 Kc (Vernier Tuned)

Etched Circular Dial 4½"

Frequency Response: ± 1.5 DB.

60cps—150Kc Vernier Dial. Grey wrinkle steel case with leather carrying handle. Complete with a pair of test leads.



SPECIFICATIONS:

Frequency Range
Sine wave: 20—200,000 cps in 4 bands
Square wave: 60—30,000 cps.
Output Voltage: (Variable) Sine: 7 volt. Square: 7 volt P-P
Output Impedance: 1,000 ohm
Frequency Accuracy: ± 5
Distortion: Less than 2%
Tube Complement: 6BM8, 12AT7, 6X4.
Power Requirements: 105—125V, 220—240V AC 50/60 cps. 19W
Dimensions: 193 mmH x 265mmW x 150mmD
Net Weight: 3.5 Kg.

MODEL TE-22
Carr/Pack 'B'

CODE
G117

DE-LUXE AUDIO GENERATOR

MODEL TE22D (Matching TE20D below)

Output voltage: Sine Wave 7 volts(RMS)
Square Wave 7 volts(P-P)
Distortion: Less than 2%
Tube complement: 6BM8, 12AT7, 6 x 4
Attenuator: 4—range 1/1, 1/10, 1/100, 1/1000
Accessory: 1—Output cable
Power supply: a.c. 50/60 cps 220—240 volts
19 watts
Dimensions: 215 x 170 x 140mm
Net Weight: 3 Kgs.

TE22D

CODE
G118

Carriage Pack 'B'



SPECIFICATIONS:

Frequency range:
Sine Wave — 20 to 200,000c/s in 4 bands.
Square Wave — 20 to 30,000cps
Frequency Response $\pm 1\frac{1}{2}$ dB
Output Impedance: 1 Kohm.
Frequency Accuracy: $\pm 5\%$

(Also see Model TE22)

RF SIGNAL GENERATOR

MODEL TE-20 D (Matching TE22D above)

- * Factory calibrated and tested
- * Dual output RF terminals
- * Separate variable Audio output
- * Employs a X'tal socket and can be used as
(a) Self-Calibration
(b) Market Generator

Printed Circuit for uniform characteristics

Power source: 105/125, 220/240 volts a.c.,
50/60 cps 12 watts.

Dimensions: 140 x 215 x 170mm
Weight: 2.8 kg

TE20D

CODE
G119

Carriage/Pack 'B'



SPECIFICATIONS:

Frequency range: 120kc/s — 500mc/s (6 Fundamental Bands and 1 Harmonic Band) $\pm 2\%$
Frequency accuracy: $\pm 2\%$
Audio output: to 8 volts
Internal modulation: Approx. 400c/s
Tube complement: 12BH7A, 6AR5, Silicon Diode and Germanium Diode

AC MILLIVOLTMETER

MODEL TE-40

High Sensitivity V.T.V.M.
Suitable to measuring Audio Circuits and Low Level a.c. Voltages up to 1 Mc/s.

TE40

CODE
G120



SPECIFICATIONS:

A.C. V: 1 mV—300 VRMS (10 Range).
Accuracy: 5 cps 1.2 MC ± 2 —25db; 10 cps. 1MC ± 1 db; 20 cps. 250 KC ± 0.2 db.
db. Scale: —40, —30, —20, —10, 0, 10, 20, 30, 40, 50dbm.
Power Source: 105—125, 220—240 V a.c. 50/60 cps.
Dimensions: 140 x 215 x 170mm.
Weight: 2.5 kg.

Carriage/Pack 'B'

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

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. 28 ranges.

SPECIFICATION

D.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: 4 x 10-100-1K-10K-
100K-1M-10M(0.2
1000M).

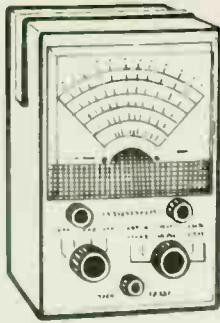
Decibe 1: -10 db to +65 db.

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.

PRICE	CODE
24.30	G124

Carr/Pack 'B'

EXTRA PROBES FOR TE-65 V.T.V.M.

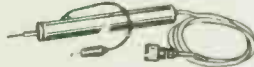
MODEL RF-22

Measures high Frequency at max. 20V.

Dimensions: 160 mm.

Weight: 85 g.

PRICE	CODE
3.18	G125



MODEL HV-20

Measures d.c. Voltage 20 x of original Scale up to 3 KV.

Dimensions: 250 mm.

Weight: 140 g.

PRICE	CODE
3.78	G126



CARR-PACK ON BOTH 'A'

GRID DIP METER All Transistor

MODEL TE15

Operates as a Grid Dip. Oscillator, Absorption Wave-meter and Oscillation Detector. Battery operated. Versatile Portable Applications.

SPECIFICATIONS:

Transistors: 3 and 1 diode

Meter: 500 A F/S.

Battery: 9 volts PP3

Dimensions: 180 x 80 x 40 mm

Weight: 730 g

Frequency Range: 440 kc/s-280 mc/s
with 6 coils:

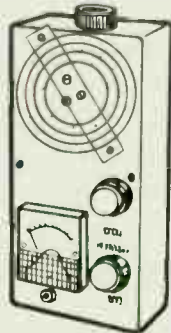
A coil 0.44-1.3 mc/s; B coil 1.3-4.3 mc/s;

C coil 4-14 mc/s; D coil 14-40 mc/s;

E coil 40-140 mc/s; F coil 120-280 mc/s.

PRICE	CODE
21.54	G127

CARR-PACK 'B'



TT.145

TRANSISTOR/DIODE TESTER



Tests Ico, Alpha, and Beta general power transistors or diodes. Essential to service man and experimenter in electronics. This is more than a go-no-go tester-it actually measures the parameters of the transistor, so that the readings can be checked against the manufacturer's specification. Quick-test socket mounted on front panel. Full view meter for accuracy and easy reading. Supplied with accessories and fully detailed instructions.

Dimensions: 178 x 108 x 83 mm.

PRICE	CODE
17.49	G128

CARR-PACK 'B'

TT.144

DYNAMIC TRANSISTOR TESTER



Tests in or out of circuit. Identifies PNP and NPN types. Indicator lamp provides positive information on electrode open circuits and current drain, reliable go-no-go tests at practical collector currents of from 5mA-50mA, or more on power transistors. Quick-check transistor socket is mounted on front panel. Supplied complete with accessories and instructions.

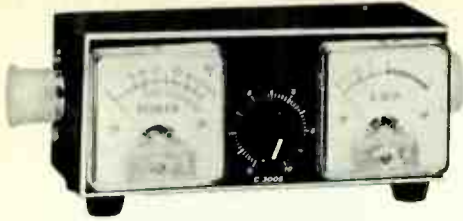
Dimensions: 160 x 95 x 64 mm.

PRICE	CODE
9.72	G129

CARR-PACK 'B'

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT TO CONVERT CARR-PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

G133 SWR and power meter



A compact meter which uses the dual bridge method to measure the standing wave ratio for transmitter aerial loading. Gives direct readings using two movements.

Frequency range: 3–150 MHz.
Impedance: 52 ohms
Dimensions: 120 x 70 x 30 mm
Connectors: UHF.

PRICE	CODE
14.25	G133

CARR./PACKING ON ALL ITEMS 'B'

G138 Transistor Checker

This compact self-powered checker for both germanium and silicon transistors incorporates flick switch PNP/NPN selection and rotary setting for determining the B and I_{ceo} factors on the easy-to-read panel meter. Transistors to be tested are inserted in a quick check socket mounted on top of the metal cabinet which is fitted with protective feet. Internal 9V battery. 80 x 55 x 50mm. Measuring Range: B(hfe) 1 ... 400. I_{ceo} 0–100mA



PRICE	CODE
8.16	G138

G139 In-Circuit Transistor Checker

A professional instrument designed to test and evaluate all transistor functions. Presented in a strongly moulded case with reinforced carrying handle which doubles as a non-slip bench strut. The highly sensitive movement enables PNP, NPN and Diode semi-conductors to be checked for B, I_{ceo} values both in and out of circuit. Instant test button; type selector switch; 4 position range switch; calibration adjustment, needle zeroing adjustment. Supplied with flexible heavy duty connector leads already fitted with insulated crocodile clips. 135 x 80 x 175mm. Measuring range: B (hfe): 0-250, 0-1000. I_{ceo}: 0-5, 0-50mA.

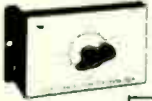


PRICE	CODE
25.27	G139

ANCILLARY EQUIPMENT

Capacitance and Resistance Substitution Boxes

A range of substitution boxes designed for the Service Engineer, Technician or Experimenter.



PRICE	CODE
2.00	G134

CAPACITANCE Range: (pfd) 50, 100, 200, 500. (mfd) .001, .002, .005, .01, .05, .1, .2, .25, .5, 1, 10, 20, 40.

Test Leads: 0.5 metres. **Dimensions:** 800 x 130 x 70 mm **Test Terminals:** 4mm.



PRICE	CODE
2.70	G135

RESISTANCE Low Range: 15 ohms to 10K ohms in 12 steps. **High Range:** 15K ohms to 10Mohms in 12 steps.

Test Leads: 1 metre. **Dimensions:** 120 x 58 x 32 mm. (**CAPACITANCE**)

Ranges (mfd): .0001, .001, .0022, .0047, .01, .022, .047, .1, .22.

Dimensions: 120 x 58 x 32 mm.

Switched Capacitance, Resistance
Resistance in Series with Capacitance
Resistance in Parallel with Capacitance
Resistance Range: 25, 50, 100, 250, 500
1K, 10K, 25K, 50K, 100K, 250K, 500K, 1M
215M, 10M.



PRICE
9.07
CODE
G136

TEST PRODS AND TEST LEAD KITS

Type A TEST PRODS

Red/Black with 40" leads, fitted pin type plugs as illustrated.

PRICE	CODE
43p	G140

PRICE	CODE
54p	G141

Type B TEST PRODS

As A, but banana plugs.

COMPREHENSIVE TEST LEAD SET

A basic red and black flexible 1 metre lead which carries an insulated threaded socket at both ends.

Into the sockets can be screwed any combination of the following:

- 4 x alligator clips,
- 2 x spade terminals,
- 4 x 4 mm banana plugs,
- 2 x test probes, 2 x 2mm plugs.



PRICE	CODE
2.26	G142

FLEXIBLE TEST LEADS

1.5 metres long extra flexible test leads with unbreakable probes and moulded strain reliefs for long and reliable service. Two plug types fit all meters.



Carr./Packing on all items A

Meter plugs-2mm
Meter plugs-4mm

PRICE	CODE
90p	G143
90p	G144

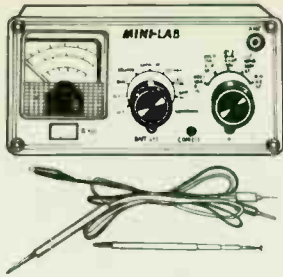
WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

EQUIPMENT FOR THE TEST ENGINEER OR THE AMBITIOUS AMATEUR

G 150 ALL IN ONE MINI-LAB

PRICE	CODE
16.74	G150

Ten-in-One tester



A multi-function and multi-purpose Ten-in-One tester. It combines its innate performance as a tester with functions of field strength indicator, generator, resistor, condenser and battery checker. The Mini-Lab, in its small case, is completely battery operated and suited for quick checkups in service shops and home-service calls.

CARRIAGE/PACKING B

SPECIFICATIONS

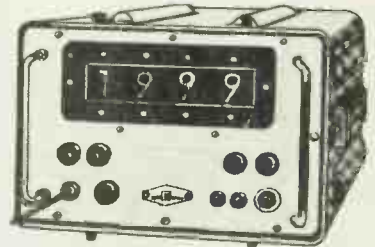
- AC & DC Voltmeter *Meter Movement 0 to 217 μ A.
*Input Resistance, 4,000 ohm/volt *Four Ranges: 0-15, 0-50, 0-150 and 0-500V *Accuracy: \pm 3% of full scale.
- Ohm Meter *0-10K, 0-100K, and 0-1M ohms.
*Accuracy: \pm 3% of full scale.
- Resistance Substitution *Resistors: 1/2W 1% tolerance *Five values: 100ohm, 1K ohm, 10K ohm, 100K ohm and 1 Mohm.
- Capacitance Substitution *Five values: .002 μ fd, .005 μ fd, .02 μ fd (oil) at 600WV and 10 μ (electrolytic), at 350WV.
- RF Field Strength Indicator *Frequency Range: 1 to 140 MC *Antenna: 5 section, 10.3/4".
- DC Ammeter *0.500mA (at full scale)
- Battery Supply *9V DC.
- RF Signal Generator *Frequency: Fixed at 455Kc (up to 700Kc adjustable) *Output: 35mV (Approx)
- Audio Generator *Frequency: 400c/s (Approx.), *Output: 35mV (Approx.) *Weight: 750g *Size: 7.48" (W) x 3.74" (D) x 3.30" (H) *Accessories: The unit comes with test leads, an antenna and 3 batteries.

G 151 DIGITAL VOLT-KILOOHMMETER (Carr./Packing 'C')

D.C. Voltage Range: 0.01-1,000V. Resistance Range: 100 ohms-1,000k 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:

- (a) Measuring Unit (c) Zero Balance Unit (e) Indicator Unit
(b) Control Unit (d) Source of Reference Voltage (f) Power Supply Unit

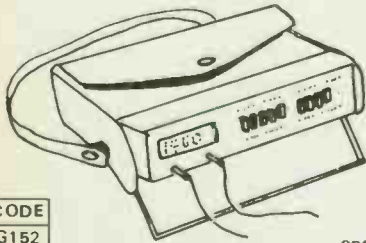
Specification Voltage Measurement: Range: 0.01-1,000 V d.c.; Accuracy: \pm .2% \pm 1 digit; Range Selection: Automatic; Polarity Selection: Automatic; Max. Ripple Contents: 0.1%; Input Resistance, Minimum: 1M ohm. Resistance Measurement Range: 100 ohms-1,999k ohms; Range Selection: Automatic; Accuracy: \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-.01 μ F; Max. Series Inductance: 1H. Time of Measuring Cycle: 3 sec. Power Supplies: 220 V \pm 10% 50Hz, 220 V \pm 5% and 115V \pm 5% 400 Hz. Dimensions: 325 x 220 x 415 mm. Weight: 30kg approx. Complete with full complement of spares & instruction manual.



SPECIAL ORDER ITEM

PRICE	CODE
On application	G151

G 152 Digital multimeter



PRICE	CODE
63.72	G152

Case optional extra.

The DM2 multimeter from Sinclair is a five-function four-range instrument with a 3 1/2 digit l.e.d. display. The meter uses a m.o.s. l.s.i. chip which has built-in 7-segment decoding and provides an input impedance of typically 10M Ω . A chain of metal film resistors form a voltage divider to obtain ranges up to 1000V, and to provide current shunts for ranges up to 1A. A mean averaging a.c. to d.c. converter is also incorporated, to provide alternating voltage and current ranges; overload protection is provided. The meter is battery powered, measures 220 x 150 x 50mm approx.

Carr./Packing C

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT. TO CONVERT CARR/PACK. CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

G 153 Multi-purpose Signal Tracer Carr./Pack. B

Gain: Over 60 dB Gain Control: Continuous from zero to 5 V
Attenuation Factor: 0-20-40-60dB
Input Impedance: AF; Over 75 K ohm RF; Over 100K ohm
Output Impedance: Ext. Speaker; 8 ohm Output; 600 ohm unbalanced
Meter: VU 200uA
Speaker: 2-1/4" dynamic

NEW INTEGRATED CIRCUIT DESIGN!

Power Supply: Dry Cell BLO06P 9V x 1
Size: 150 x 85 x 70mm
Weight: Approx. 530gs (1.17 lbs)
Accessories: Test prod x 1, Clip cord x 1, Dry cell x 1.

Here is a most unusual and versatile signal tracer of exceptional value, Handy as follows and easy to operate. Designed for use with AM, FM, TV and audio circuitry, its high gain enables direct tracing of the actual signal at the input terminal. Has a fine visual indicator plus output terminals for use with VTVM or scope. Other features include: test amplifier; checking of speaker microphone, pick-up, etc.



PRICE	CODE
13.50	G153



OSCILLOSCOPES

CARR/PACKING ON ALL ITEMS D

G 157 Pulse Oscilloscope



PRICE	CODE
47.52	G157

The pulse oscilloscope is used for the 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.

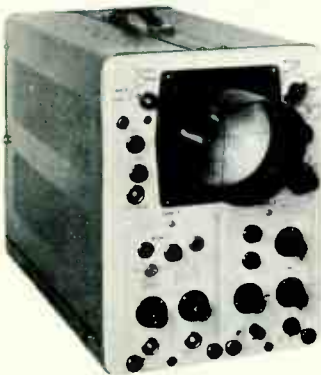
SPECIFICATION

Max. Amplitude of Test Signals: 200V. Characteristics of Vertical Amplifier: Bandwidth: 10 MHz; Sensitivity at 100 kHz: V RMS/mm; Wide Passband, 3-25; Narrow Passband-10-500,000 kHz; Input Impedance: 5M ohms; Capacitance in Shunt with Input Impedance, pF: 50; Tilt of 2,000 μ sec: pulse: 15%; Total Overshoot of 1 μ sec 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: .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 sec; Triggered Sweep Error: \pm 20%; Free-running Sweep Frequency Range: 20-200,000 Hz, in nine ranges; Trigger Voltage: .25V max; Sync. Voltage: .12V max. Time Calibrator: Preset Repetition Rates of Calibrating Pips: .05, .2, 1, 5, 20, 100 μ sec; Calibrator Error: \pm 5%. Amplitude Calibrator Voltage Measurement: Error within the Range .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 50Hz and 115V 400Hz. Overall Dimensions: 220 x 360 x 430 mm. Weight: 18kg. approx.

STANDARD EQUIPMENT

Supply Lead; Set of Coaxial Cables; Spare Fuse; Graticule; Operating Manual.

G 158 Single Beam D.C. Oscilloscope



PRICE	CODE
88.58	G158

This Oscilloscope is designed for visual observation of D.C. and A.C. voltages up 1mHz. Triggered and free-running time base is provided with time base calibrator. Built-in amplitude calibrator generates square voltage pulses from 10mV to 100V. Special facilities included 'X' trace expansion and provision of brightness modulation. 5 $\frac{1}{2}$ -in tube with post deflection accelerator with long afterglow is employed. Vertical and horizontal deflection plates are accessible for direct connection.

BASIC SPECIFICATION

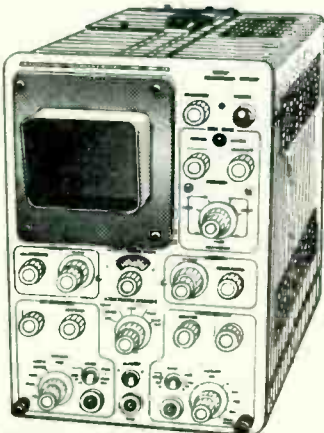
Display size 80 x 50mm. Vertical Amplifier: Max. sensitivity 5mm/mV; Passband: between 3db and 1mHz; Passband between .5 db points. DC to 250kHz; Non-linearity of vertical amplifier, 5% max; Input resistance, 1 megohm; Parallel input capacitance, 40 pF; Maximum input voltage, 200V; Attenuator settings, 1:1, 1:10, 1:100, 1:1000 Direct-to-plate input:— Maximum input voltage, 400V; Input resistance, 3.3 megohms; Parallel input capacitance, 40pF. Time base, triggered and free-running:— Range, in six decade subranges, 100 microsec. to 10 sec. per sweep; Synchronizing and triggering input:— Minimum signal amplitude for periodic sweep triggering, 10mm image size; Range of external triggering signals, 1-100V; Frequency of external triggering signals, 3Hz to 1mHz; Minimum signal amplitude for internal single shot triggering, 10mm image size; Minimum pulse length, 2 microsec.; Range of external signal for shot triggering, 1 to 100V; Pulse repetition rate, 1 Hz - 10 kHz. Internal time base calibrator: Time marks repetition rates, 5-20-100-500 microsec. 2-10-50-200 millisecc. 2-10-100-500 millisecc.; Calibration error, 5%. Internal Amplitude calibrator:— Pulse height, 0.01-0.1-1-10-100 V; Calibration error, 5%. Supply Voltage: 115/240 V A.C. Dimensions: 250 x 500 x 360mm. Weight: 22.6 kg.

STANDARD EQUIPMENT

Supply cable—Set of connecting cables, clips and adaptors—Probe—Attenuator 1:100—spare lamps and fuses—Viewing hood—Instruction Manual.

G159 Double Beam Oscilloscope

G



PRICE	CODE
93.98	G159

This double-beam oscilloscope 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 .015M 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 Ratio: 10 kHz. Built-in Amplitude Calibrator: Amplitude of Test Pulses with Duration of 0.35 μ sec 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 sec: 10%. Instrument Warm-up Time: 30 min. Power Supplies: 220 \pm 22V, 50Hz. Overall Dimensions: 260 x 550 x 376mm. Weight: 25 kg. approx.

STANDARD EQUIPMENT

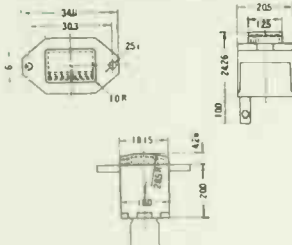
External Attenuator 1:10:2 Mains Lead: 1. Coaxial Cable with Jack: 2. 75 ohm Coaxial Cable with Jack: 2. Coaxial Jack: 4. Connector for coupling to Plates: 4. Crocodile Clips: 4. Viewing Hood: 1. Spare Lamps and Fuses. Operating Manual.

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

PANEL METERS

HENELEC RANGE OF EDGE TYPE AND PANEL METERS

SERIES 11



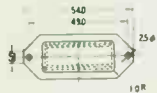
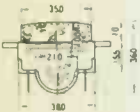
F11 Centre zero tuning or null indicator. 1200 ohms resistance. 100-0-100 μ A.

V11 Tuning or level indicator. Pointer rest on left. 1200 ohms resistance. 130 μ A on $\frac{2}{3}$ rds scale. 200 μ A. Full scale.

SB11 Stereo balance or null indicator. 410 ohms resistance. 100-0-100 μ A
CARR/PACK 'A'

PRICE EACH	CODE
1.12	G162

SERIES 31



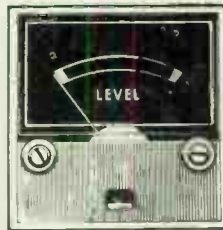
V31/6 Tuning or level indicator. Pointer rest to left. 1200 ohms resistance. 130 μ A $\frac{2}{3}$ rds scale, 200 μ A full scale.

SB31 Stereo balance or null indicator. 410 ohms resistance 100-0-100 μ A. Full scale.

CARR/PACK 'A'

PRICE EACH	CODE
1.18	G184

SERIES 45



V45/6 Tuning or level indicator. Pointer rest to left. 410 ohms resistance, 260 μ A on $\frac{2}{3}$ rds scale 400 μ A full scale.

V45 (Calibrated Vu)
As above, but 1200 ohms resistance. 130 μ A on $\frac{2}{3}$ rds scale, 200 μ A full scale.

CARR/PACK 'A'

PRICE EACH	CODE
1.58	G184

PRICE EACH	CODE
1.25	G185

MODEL PE70 PROFESSIONAL EDGEWISE PANEL METERS



Dimensions: 89mm x 35mm x 70mm deep overall

CARRIAGE PACKING 'A'

Available as follows:

- 50 Microamp
- 50-0-50 Microamp
- 100 Microamp
- 100-0-100 Microamp
- 200 Microamp
- 500 Microamp
- 1 Milliamp
- 300 Volt AC
- VU Meter

PRICE EA.	CODE
4.48	G166
4.42	G167
4.88	G168
4.37	G169
4.37	G170
4.21	G171
4.15	G172
4.28	G173
5.37	G174

PANEL METERS FOR EDUCATIONAL AND INDUSTRIAL USE

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

HENELEC

PRECISION PANEL METERS

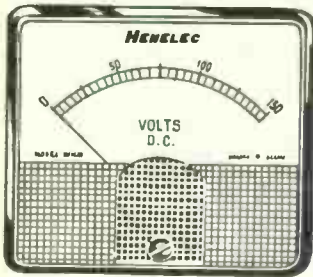
Moving Coil Types (Unless Stated)

* MOVING COIL TYPE
2.5% ACCURACY FSD

* CLEAR PLASTIC
PANEL INSTRUMENTS

* INDIVIDUALLY
BOXED AND
GUARANTEED

Carr/Packing on all
Panel Meters (each) 'A'



VOLTMETER
65 and 85 Series

Ruggedly built quality panel meters, all with D Arsonval movements, dual bearings and clear plastic removable fronts. Accuracy 2½% of full scale. Silver dials with black numerals and pointer. Terminal polarity clearly marked. Front zero adjustment screw, cushioned ceramic bumpers protect pointer. Fitted Screw Terminals. Four corner fixing by threaded studs.

SERIES 38

Scale	Face size	42 x 42 mm	Microamp	DC	900 ohms
50	DC	900	ohms		
100	DC	900	"		
200	DC	900	"		
500	DC	180	"		
50-0-50	Microamp	DC	1000 ohms		
100-0-100	"	DC	1000 "		
500-0-500	"	DC	100 "		
1	Milliamp	DC	105 ohms		
5	"	DC	1.9 "		
50	"	DC	1.9 "		
100	"	DC	1.9 "		
500	"	DC	1.9 "		
1	Amp	DC	1.9 ohms		
5	"	DC	1.9 "		
10	Volts	DC	105 ohms		
20	"	DC	105 "		
50	"	DC	105 "		
100	"	DC	105 "		
300	"	DC	105 "		
500	"	DC	105 "		
S Meter		38 Series			
VU Meter		38 Series			
50	Volt	AC	Rectifier Type		

SERIES 65

Scale	Face Size	86 x 78 mm	Microamp	DC	1300 ohms
50	DC	1300	ohms		
100	DC	1000	"		
500	DC	180	"		
1	Milliamp	DC	110 ohms		
5	"	DC	2 "		
10	"	DC	2 "		
50	"	DC	2 "		
100	"	DC	2 "		
500	"	DC	2 "		
10	Volts	DC	110 ohms		
20	"	DC	110 "		
50	"	DC	110 "		
100	"	DC	110 "		
300	"	DC	110 "		

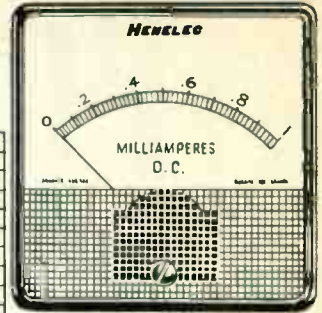
SERIES 85

Scale	Face Size	120 x 110 mm	Microamp	DC	1300 ohms
50	DC	1300	ohms		
100	DC	1000	"		
500	DC	180	"		
1	Milliamp	DC	110 "		
100	"	DC	2 "		
500	"	DC	2 "		

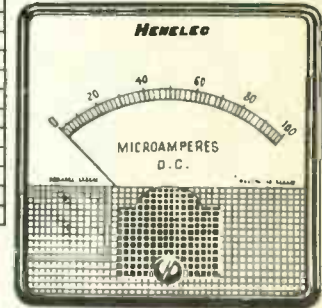
PRICE	CODE
3.08	G180
3.08	G181
3.08	G182
3.08	G183
3.08	G184
3.08	G185
3.08	G186
3.08	G187
3.08	G188
3.08	G189
3.08	G190
3.08	G191
3.08	G192
3.08	G193
3.08	G194
3.08	G195
3.08	G196
3.08	G197
3.08	G198
3.08	G199
3.08	G200
3.58	G201
3.08	G202

PRICE	CODE
4.10	G203
4.10	G204
4.10	G205
4.10	G206
4.10	G207
4.10	G208
4.10	G209
4.10	G210
4.10	G211
4.10	G212
4.10	G213
4.10	G214
4.10	G215
4.10	G216

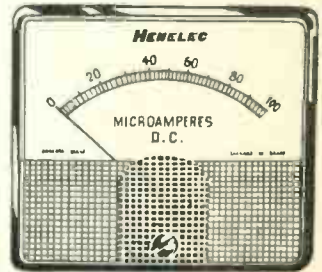
PRICE	CODE
5.88	G217
5.88	G218
5.87	G219
5.87	G220
5.87	G221
5.87	G222



MILLIAMMETER
38 Series Full Size

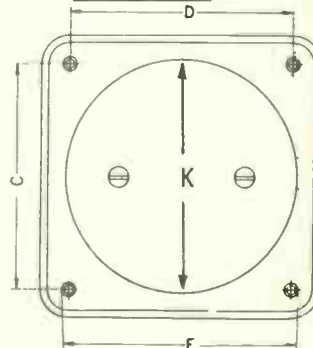
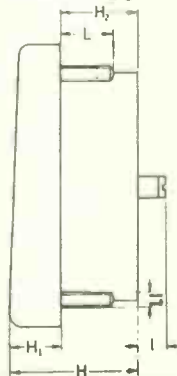
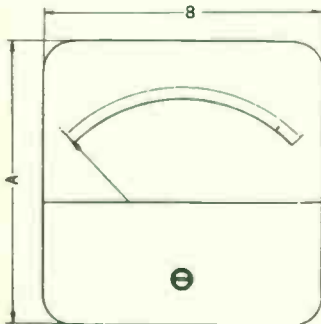


MICROAMMETER
38 Series Full Size



MICROAMMETER
65 and 85 Series

G



DIMENSIONS

Type & Dimensions	A	B	C	D	E	H	H	H	L	L	I	F	G	K
85 m/m	110	120	88	98	85	47	15	33	16	4	11	30	8	68
65 m/m	78	86	57	57	69	41	14	28	12	3	17			64
38 m/m	42	42	32	32	38	32	9	23	13	2.3	5			37

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.



METERS (51 mm RANGE)

FACE SIZE: 60 x 45 x 40 mm

★ WIDE VIEW SHAPE

★ SNAP ON ACRYLIC FACES

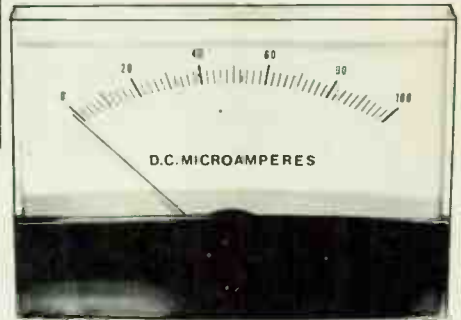
★ PRE-WIRED FOR ILLUMINATION

T21	0 - 50	Microamp	DC	1250	ohms resistance
T22	0 - 100	"	DC	580	" "
T23	0 - 500	"	DC	170	" "
T24	0 - 1	Milliamp	DC	170	" "
T25	0 - 5	"	DC	170	" "
T26	0 - 10	"	DC	6	" "
T27	0 - 50	"	DC	0.5	" "
T28	0 - 100	"	DC	0.5	" "
T29	0 - 500	"	DC	0.5	" "
T30	0 - 1	amp	DC	0.5	" "
T33	0 - 50	volts	AC	50k	" "
T34	0 - 300	"	AC	300k	" "
T35	"S" Meter				
T36	"VU" Meter				

PRICE	CODE
3.08	G226
3.08	G227
3.08	G228
3.08	G229
3.08	G230
3.08	G231
3.08	G232
3.08	G233
3.08	G234
3.08	G235
3.08	G236
3.08	G237
3.56	G238
3.56	G239



51 mm Range



102 mm Range

CARRIAGE/PACKING on all meters, each 'A'



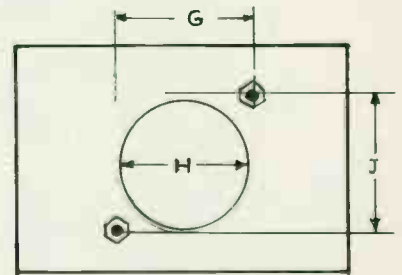
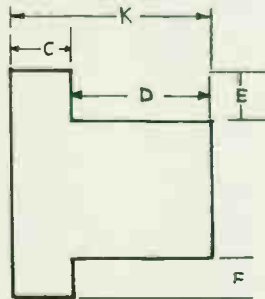
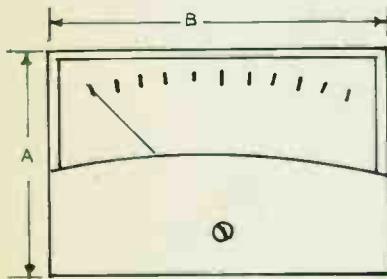
METERS (102 mm RANGE)

FACE SIZE: 110 x 82 x 43 mm

T37	0 - 50	Microamp	DC	1400	ohms resistance
T38	0 - 100	"	DC	730	" "
T39	0 - 500	"	DC	200	" "

PRICE	CODE
4.10	G240
4.10	G241
4.10	G242

The above 'T' meters both in the 2 & 4 inch range have been styled with a clear modern uncluttered look and have a wide view shape, with a snap on acrylic face. The 2" models can be mounted into panels up to 7 mm deep and require 38 mm cut out hole, whilst the 4" models can fit panels up to 11 mm deep and require a circular cut out of 59 mm. All models have a zero adjustment screw, rear bolt fitting for front mounting and are pre-wired for incorporating the illuminating kits (below). Moving coil permanent magnet movements on all except AC volt meter which has a rectifier type movement.



TYPE & DIMENSIONS	A	B	C	D	E	F	G	H	J	K
Two Inch Range	45 mm	60 mm	10 mm	30 mm	7 mm	2 mm	30 mm	38 mm	30 mm	40 mm
Four Inch Range	82 mm	110 mm	12 mm	33 mm	21 mm	4 mm	55 mm	58 mm	55 mm	45 mm

Illuminating Kit for above Panel Meters

PRICE	CODE
86p	G243

Two 6.3 v bulbs for press-in fitting onto pre-wired connector blocks which require 12.6 v external power through the rear terminals already fitted.

CARR/PACKING 'A'

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

Introducing HENRY's

PIK - A - PAK's




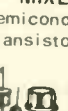












Ideal for all Hobbyists – Constructors – Schools etc.

We are pleased to offer for the first time PRE PACKED PRODUCTS which offer a wide selection of popular types, then SUBSTANTIAL SAVINGS are made by purchasing PAK's.

(UNLESS OTHERWISE STATED ALL PRODUCT IS BRANDED, FULL SPECIFICATION & IS FULLY GUARANTEED).

























We Offer: WIDE VARIETY – EXCELLENT SELECTION – LOW PRICES

SPECIAL DISCOUNTS 5 PAKS deduct 5% 25 PAKS deduct 15%
 10 PAKS deduct 10% 100 PAKS or more, deduct 20%

<p>10 IN4001 to IN4007 Mixed voltages up to 1Kv Small size 7 x 2 mm 1 amp silicon miniature rectifiers</p>  <table border="1" data-bbox="228 702 389 776"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>55p</td> <td>PAK 001</td> </tr> </tbody> </table>	PRICE	CODE	55p	PAK 001	<p>10 BZY88 and BZX83 400 MW Zeners mixed voltages wire ended 5% tolerance</p>  <table border="1" data-bbox="524 702 685 776"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>85p</td> <td>PAK 005</td> </tr> </tbody> </table>	PRICE	CODE	85p	PAK 005	<p>10 2N2926 * Popular General purpose Silicon NPN 200 mHz. transistors mixed gain groups.</p>  <table border="1" data-bbox="819 702 981 776"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>85p</td> <td>PAK 009</td> </tr> </tbody> </table>	PRICE	CODE	85p	PAK 009	<p>75 TRANSISTORS/DIODES MIXED ASSORTMENT Semiconductor surprise pack. Transistors-Rectifiers-Diodes Good Mixed Bag. You won't be disappointed.</p>  <table border="1" data-bbox="1115 702 1276 776"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 013</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 013
PRICE	CODE																		
55p	PAK 001																		
PRICE	CODE																		
85p	PAK 005																		
PRICE	CODE																		
85p	PAK 009																		
PRICE	CODE																		
99p	PAK 013																		
<p>50 ASSORTMENT MIXED DIODES Germanium and silicon diodes, general purpose for switching UHF and logic designs</p>  <table border="1" data-bbox="215 997 376 1071"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>49p</td> <td>PAK 002</td> </tr> </tbody> </table>	PRICE	CODE	49p	PAK 002	<p>3 2N3819 * Field effect transistors T092 High Z input 250 mHz 'N' Channel</p>  <table border="1" data-bbox="510 979 672 1053"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 006</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 006	<p>10 IN5400 SERIES 3 amp rectifiers silicon wire ended mixed voltages between 50 and 1000 P.I.V.</p>  <table border="1" data-bbox="819 979 981 1053"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 010</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 010	<p>15 IN4148 Fast switching diodes, ultra high frequency and binary digital in computers</p>  <table border="1" data-bbox="1115 979 1276 1053"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>55p</td> <td>PAK 014</td> </tr> </tbody> </table>	PRICE	CODE	55p	PAK 014
PRICE	CODE																		
49p	PAK 002																		
PRICE	CODE																		
99p	PAK 006																		
PRICE	CODE																		
99p	PAK 010																		
PRICE	CODE																		
55p	PAK 014																		
<p>3 THYRISTORS CRS * 1 amp 200 P.I.V. T05 Thyristors for latching and counting circuits.</p>  <table border="1" data-bbox="215 1238 376 1312"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>55p</td> <td>PAK 003</td> </tr> </tbody> </table>	PRICE	CODE	55p	PAK 003	<p>10 BC107/BC108/BC109 Silicon NPN and PNP mixed, low noise. Very popular general purposes. T018</p>  <table border="1" data-bbox="510 1256 672 1330"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 007</td> </tr> </tbody> </table> <p>TOTAL 10 DEVICES</p>	PRICE	CODE	99p	PAK 007	<p>10 BC171/BC173 Silicon NPN/PNP Replace BC107/8/9 General purpose transistors, mixed gain groups.</p>  <table border="1" data-bbox="819 1256 981 1330"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>89p</td> <td>PAK 011</td> </tr> </tbody> </table> <p>TOTAL 10 DEVICES</p>	PRICE	CODE	89p	PAK 011	<p>2 ORP12-LDR03 * LDR up to 110 volts 1/2 x 5/8" deep 0.2 watts For light operated gadgets</p>  <table border="1" data-bbox="1115 1238 1276 1312"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>1.15</td> <td>PAK 015</td> </tr> </tbody> </table>	PRICE	CODE	1.15	PAK 015
PRICE	CODE																		
55p	PAK 003																		
PRICE	CODE																		
99p	PAK 007																		
PRICE	CODE																		
89p	PAK 011																		
PRICE	CODE																		
1.15	PAK 015																		
<p>25 TRANSISTORS MIXED ASSORTMENT Germanium and silicon transistors includes pair of power devices 10 watt.</p>  <table border="1" data-bbox="215 1515 376 1589"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>59p</td> <td>PAK 004</td> </tr> </tbody> </table>	PRICE	CODE	59p	PAK 004	<p>3 2N3055 Soliddev silicon T03 output power transistors 25 watt 20 volt 1 amp</p>  <table border="1" data-bbox="510 1496 672 1570"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 008</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 008	<p>15 IN34A Computer switching and general diode applications.</p>  <table border="1" data-bbox="819 1496 981 1570"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>49p</td> <td>PAK 012</td> </tr> </tbody> </table>	PRICE	CODE	49p	PAK 012	<p>3 709c & 741c * Linear amplifiers D.I.L. and T05 cans For use in analogue computers relay drivers etc.</p>  <table border="1" data-bbox="1115 1515 1276 1589"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 016</td> </tr> </tbody> </table> <p>TOTAL 3 DEVICES</p>	PRICE	CODE	99p	PAK 016
PRICE	CODE																		
59p	PAK 004																		
PRICE	CODE																		
99p	PAK 008																		
PRICE	CODE																		
49p	PAK 012																		
PRICE	CODE																		
99p	PAK 016																		

























* CIRCUITS AND DATA INCLUDED

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
 TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. ADD PRICE INCLUSIVE OF V.A.T.

<p>7 7400 SERIES * INTEGRATED CIRCUITS</p> <p>TTL. 14 pin dual in line IC's. Includes gates, flip-flops, buffers.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 017</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 017	<p>20 AA119</p> <p>Fast switching diodes. General purpose.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>89p</td> <td>PAK 023</td> </tr> </tbody> </table>	PRICE	CODE	89p	PAK 023	<p>5 ACY22</p> <p>Germanium T05 180 M/W. 1.1 MHz 300 M/A Low frequency</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>69p</td> <td>PAK 029</td> </tr> </tbody> </table>	PRICE	CODE	69p	PAK 029	<p>3 BTY80</p> <p>Silicon controlled Rectifiers (SCR) 3 amp 200 P.I.V. T048 Stud mounting</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 035</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 035
PRICE	CODE																		
99p	PAK 017																		
PRICE	CODE																		
89p	PAK 023																		
PRICE	CODE																		
69p	PAK 029																		
PRICE	CODE																		
99p	PAK 035																		
<p>2 2N2646 and 2N4871</p> <p>Unijunction transistors 300m/w 30 volts for motor speed control, timers.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>85p</td> <td>PAK 018</td> </tr> </tbody> </table>	PRICE	CODE	85p	PAK 018	<p>2 2N1309</p> <p>Germanium General purpose switching. T05 15 MHz and computers. High frequency.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>69p</td> <td>PAK 024</td> </tr> </tbody> </table>	PRICE	CODE	69p	PAK 024	<p>2 AD161/AD162</p> <p>Audio Driver and Output, T066 6 watts, 32 volts ½ amp.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 030</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 030	<p>4 BY100</p> <p>Silicon Rectifier 1 amp 600 P.I.V. Metal Case.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>79p</td> <td>PAK 036</td> </tr> </tbody> </table>	PRICE	CODE	79p	PAK 036
PRICE	CODE																		
85p	PAK 018																		
PRICE	CODE																		
69p	PAK 024																		
PRICE	CODE																		
99p	PAK 030																		
PRICE	CODE																		
79p	PAK 036																		
<p>3 7490 7473 7474 IC's *</p> <p>Adders, Registers for computers. 14 pin D.I.L. Also Digital uses experimenters.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 019</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 019	<p>20 AAZ15 and AAZ13</p> <p>Germanium diodes for switching, computers, etc.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 025</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 025	<p>1 TBA800 *</p> <p>5 watt integrated circuit. Audio amplifier. Into 15 ohms.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>£1.05</td> <td>PAK 031</td> </tr> </tbody> </table>	PRICE	CODE	£1.05	PAK 031	<p>8 BY127</p> <p>Silicon Rectifier 1 amp 800 P.I.V. Plastic Case.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 037</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 037
PRICE	CODE																		
99p	PAK 019																		
PRICE	CODE																		
99p	PAK 025																		
PRICE	CODE																		
£1.05	PAK 031																		
PRICE	CODE																		
99p	PAK 037																		
<p>1 LM309K</p> <p>5v regulator 1A T03 for use with IC's. Employs internal current limitations Thermal shut down Input 35 v max.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>£1.69</td> <td>PAK 020</td> </tr> </tbody> </table>	PRICE	CODE	£1.69	PAK 020	<p>4 AC128/AC176</p> <p>Audio output transistors T01. 1 amp Germanium PNP and NPN 700 MW. Class A or B</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>79p</td> <td>PAK 026</td> </tr> </tbody> </table>	PRICE	CODE	79p	PAK 026	<p>1 TBA810s *</p> <p>6 watt integrated circuit Audio amplifier Into 3 ohms.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>£1.05</td> <td>PAK 032</td> </tr> </tbody> </table>	PRICE	CODE	£1.05	PAK 032	<p>10 BYX10</p> <p>Industrial wire ended Rectifier. Plastic case.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 038</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 038
PRICE	CODE																		
£1.69	PAK 020																		
PRICE	CODE																		
79p	PAK 026																		
PRICE	CODE																		
£1.05	PAK 032																		
PRICE	CODE																		
99p	PAK 038																		
<p>2 2N1305</p> <p>General purpose switching T05 5MHz amplifier. High frequency. Germanium transistors PNP</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>55p</td> <td>PAK 021</td> </tr> </tbody> </table>	PRICE	CODE	55p	PAK 021	<p>4 AC141/AC142</p> <p>Audio output transistors T01. Germanium PNP and NPN.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>79p</td> <td>PAK 027</td> </tr> </tbody> </table>	PRICE	CODE	79p	PAK 027	<p>5 AF117</p> <p>Germanium PNP T07 50m/w 75MHz IF and R.F. amplifier for MW/L Wave</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 033</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 033	<p>3 C106D (C106S5)</p> <p>3 amp plastic, tag connection SCR. 400 P.I.V. Electrically isolated medium current. Ideal for temperature controls light dimmers.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 039</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 039
PRICE	CODE																		
55p	PAK 021																		
PRICE	CODE																		
79p	PAK 027																		
PRICE	CODE																		
99p	PAK 033																		
PRICE	CODE																		
99p	PAK 039																		
<p>2 2N1307</p> <p>General purpose switching. T05, 10 MHz Germanium transistors PNP</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>69p</td> <td>PAK 022</td> </tr> </tbody> </table>	PRICE	CODE	69p	PAK 022	<p>4 AC187/AC188</p> <p>Audio output transistors T01 300M/A. Germanium PNP and NPN. 1.5 MHz</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>79p</td> <td>PAK 028</td> </tr> </tbody> </table>	PRICE	CODE	79p	PAK 028	<p>10 BSY25 and BSY65</p> <p>Silicon switching transistors NPN T018 300m/w 100 MHz. VHF. Fast switching.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>65p</td> <td>PAK 034</td> </tr> </tbody> </table>	PRICE	CODE	65p	PAK 034	<p>3 C106B</p> <p>3 amp plastic, tag connection SCR. 100 P.I.V. Med. current for temperature controls, dimmers, speed control.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 040</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 040
PRICE	CODE																		
69p	PAK 022																		
PRICE	CODE																		
79p	PAK 028																		
PRICE	CODE																		
65p	PAK 034																		
PRICE	CODE																		
99p	PAK 040																		


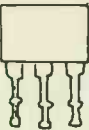






















* CIRCUITS AND DATA INCLUDED

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

<p>2 AD142 Germanium output Transistor T03 High Power.</p>  <table border="1" data-bbox="221 212 396 267"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 041</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 041	<p>1 NE555 Timer, times from 1 microsecond to 1 hour. Uses time delay oscillator pulse detector, power modulator. Resettable 5-15 v 8 pin mini dip package.</p>  <table border="1" data-bbox="517 304 692 369"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>69p</td> <td>PAK 049</td> </tr> </tbody> </table>	PRICE	CODE	69p	PAK 049	<p>1 SC35D Triac 3 amp 400 P.I.Volts T048 Stud mounting 3v 50m/A Gate</p>  <table border="1" data-bbox="813 231 981 304"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 055</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 055	<p>4 AF139 VHF TV 600mc/s amplifier. Germanium P.N.P. Pre-formed leads for Tuners.</p>  <table border="1" data-bbox="1115 231 1283 304"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 061</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 061
PRICE	CODE																		
99p	PAK 041																		
PRICE	CODE																		
69p	PAK 049																		
PRICE	CODE																		
99p	PAK 055																		
PRICE	CODE																		
99p	PAK 061																		
<p>2 CRS1/40AF Popular 1 amp T05 400 P.I.Volts SCR For relay switching, latching and counting circuits etc.</p>  <table border="1" data-bbox="221 526 396 591"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 042</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 042	<p>15 OA200/OA202 Very popular silicon general purpose diodes. 50 P.I.V. and 150 P.I.V. at 160m/A.</p>  <table border="1" data-bbox="517 545 692 609"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 050</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 050	<p>1 SC 40D Triac 6 amp 400 P.I.Volts T048 Stud mounting 3v 50m/A Gate</p>  <table border="1" data-bbox="813 489 981 563"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>£1.30</td> <td>PAK 056</td> </tr> </tbody> </table>	PRICE	CODE	£1.30	PAK 056	<p>15 ASY57 Germanium PNP General purpose transistors R047 Ideal low cost for experimenters.</p>  <table border="1" data-bbox="1115 508 1283 582"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 062</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 062
PRICE	CODE																		
99p	PAK 042																		
PRICE	CODE																		
99p	PAK 050																		
PRICE	CODE																		
£1.30	PAK 056																		
PRICE	CODE																		
99p	PAK 062																		
<p>4 CRS3/025 3 amp 25 volt T046 SCR. Med. current. For Burglar alarms Temp. controls, low voltage dimmers etc.</p>  <table border="1" data-bbox="221 757 396 831"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 043</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 043	<p>2 OC 35 Germanium P.N.P. power output transistors T03 30 watts 250KHz. 60 volts</p>  <table border="1" data-bbox="517 757 692 822"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 051</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 051	<p>1 SC 45D Triac 10 amps 400 P.I.Volts T048 Stud mounting 3v 50m/A Gate</p>  <table border="1" data-bbox="813 757 981 822"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>£1.65</td> <td>PAK 057</td> </tr> </tbody> </table>	PRICE	CODE	£1.65	PAK 057	<p>2 W01 1 amp bridge Rectifiers silicon 100P.I.Volts Min. Cylindrical Full wave.</p>  <table border="1" data-bbox="1115 776 1283 850"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>55p</td> <td>PAK 063</td> </tr> </tbody> </table>	PRICE	CODE	55p	PAK 063
PRICE	CODE																		
99p	PAK 043																		
PRICE	CODE																		
99p	PAK 051																		
PRICE	CODE																		
£1.65	PAK 057																		
PRICE	CODE																		
55p	PAK 063																		
<p>3 CRS3/10 3 amp 100 P.I.V. T048 SCR. Med. current. D.C. motors, Temp. controls, etc.</p>  <table border="1" data-bbox="221 1034 396 1108"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 044</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 044	<p>2 OC 36 Germanium P.N.P. power output transistors T03 30 watts 250 KHz. 80 volts.</p>  <table border="1" data-bbox="517 1016 692 1090"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 052</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 052	<p>1 SC 50D Triac 15 amps 400 P.I.Volts T048 Stud mounting 3v 50m/A Gate</p>  <table border="1" data-bbox="813 1016 981 1090"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>£1.95</td> <td>PAK 058</td> </tr> </tbody> </table>	PRICE	CODE	£1.95	PAK 058	<p>2 W06 1 amp bridge, full wave Rectifiers Silicon 600 P.I.V. Min. Cylindrical</p>  <table border="1" data-bbox="1115 1016 1283 1090"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>69p</td> <td>PAK 064</td> </tr> </tbody> </table>	PRICE	CODE	69p	PAK 064
PRICE	CODE																		
99p	PAK 044																		
PRICE	CODE																		
99p	PAK 052																		
PRICE	CODE																		
£1.95	PAK 058																		
PRICE	CODE																		
69p	PAK 064																		
<p>50 ASSORTMENT DIODES GD SERIES General purpose Germanium diodes Eq. to OA70 OA73 OA79. Real bumper pack, excellent for builders, hobbyists</p>  <table border="1" data-bbox="221 1321 396 1395"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>59p</td> <td>PAK 045</td> </tr> </tbody> </table>	PRICE	CODE	59p	PAK 045	<p>2 OC72 Germanium P.N.P. output transistors 400 M/Watts R08. Class B output.</p>  <table border="1" data-bbox="517 1284 692 1358"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>55p</td> <td>PAK 053</td> </tr> </tbody> </table>	PRICE	CODE	55p	PAK 053	<p>2 AD149 Germanium PNP output pair T03 22.5 watts 50 volt.</p>  <table border="1" data-bbox="813 1284 981 1358"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 059</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 059	<p>3 B2/10 Bridge rectifiers silicon full wave miniature 2 amps 100 P.I.Volts 12 x 12 x 4 m/m</p>  <table border="1" data-bbox="1115 1302 1283 1376"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>89p</td> <td>PAK 065</td> </tr> </tbody> </table>	PRICE	CODE	89p	PAK 065
PRICE	CODE																		
59p	PAK 045																		
PRICE	CODE																		
55p	PAK 053																		
PRICE	CODE																		
99p	PAK 059																		
PRICE	CODE																		
89p	PAK 065																		
<p>2 MEU22 Field effect transistor</p>  <table border="1" data-bbox="221 1515 396 1589"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>89p</td> <td>PAK 048</td> </tr> </tbody> </table>	PRICE	CODE	89p	PAK 048	<p>2 OC 76 Germanium P.N.P. switching 75 M/W 350 KHz R08</p>  <table border="1" data-bbox="517 1533 692 1607"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>55p</td> <td>PAK 054</td> </tr> </tbody> </table>	PRICE	CODE	55p	PAK 054	<p>4 AF124-AF127 P.N.P. Germanium RF and IF amplifiers T072 Mixers. 75 mc/s.</p>  <table border="1" data-bbox="813 1533 981 1607"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 060</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 060	<p>3 B2/05 Bridge rectifiers silicon 2 amps 50 P.I.Volts. Full wave. 12 x 12 x 4 m/m</p>  <table border="1" data-bbox="1115 1561 1283 1635"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>89p</td> <td>PAK 066</td> </tr> </tbody> </table>	PRICE	CODE	89p	PAK 066
PRICE	CODE																		
89p	PAK 048																		
PRICE	CODE																		
55p	PAK 054																		
PRICE	CODE																		
99p	PAK 060																		
PRICE	CODE																		
89p	PAK 066																		

























* CIRCUITS AND DATA INCLUDED

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

 <p>2 B4/10 Bridge rectifiers Silicon 4 amps 100 P.I.Volts. Full wave 15 x 15 x 5 m/m</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 067</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 067	 <p>10 BC157/BC158/BC159 Silicon PNP Lock fits. 220m/w 200MHz. Low power application</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>89p</td> <td>PAK 073</td> </tr> </tbody> </table>	PRICE	CODE	89p	PAK 073	 <p>2 BD124 Silicon 3 watts output transistors T066 Case Audio amplifier application</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>£1.40</td> <td>PAK 079</td> </tr> </tbody> </table>	PRICE	CODE	£1.40	PAK 079	 <p>6 BFY50/BFY52 Silicon NPN T05 800M/W 50 MHz Low power applications.</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 085</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 085
PRICE	CODE																		
99p	PAK 067																		
PRICE	CODE																		
89p	PAK 073																		
PRICE	CODE																		
£1.40	PAK 079																		
PRICE	CODE																		
99p	PAK 085																		
 <p>2 B4/40 Bridge rectifiers Silicon 4 amps 400 P.I.Volts Full wave 15 x 15 x 6m/m</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 068</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 068	 <p>10 BC207B/BC208B Low cost replacement for BC107 and BC108 Plastic version.</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>89p</td> <td>PAK 074</td> </tr> </tbody> </table>	PRICE	CODE	89p	PAK 074	 <p>5 BF179 T05 Silicon N.P.N. T05. 600 MW 120 MHz. VCBO 225</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 080</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 080	 <p>2 BFY90 Silicon VHF 1000 Mc/s for mobile paging systems, etc. T0</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>£1.25</td> <td>PAK 086</td> </tr> </tbody> </table>	PRICE	CODE	£1.25	PAK 086
PRICE	CODE																		
99p	PAK 068																		
PRICE	CODE																		
89p	PAK 074																		
PRICE	CODE																		
99p	PAK 080																		
PRICE	CODE																		
£1.25	PAK 086																		
 <p>12 BAX13 Silicon fast switching diodes. Very popular industrial type</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>55p</td> <td>PAK 069</td> </tr> </tbody> </table>	PRICE	CODE	55p	PAK 069	 <p>20 BF216 / BF219 Silicon PNP and NPN. T098 mixed general purpose. A real bumper pack.</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 075</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 075	 <p>4 BF180 and BF181 Silicon NPN T072 150m/w 600MHz Popular industrial applications</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 081</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 081	 <p>3 B025/10 1/4 amp silicon bridge rectifier, full wave. 100 P.I.V. Ideal where space is limited. 8 x 8 x 3 m/m</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>55p</td> <td>PAK 087</td> </tr> </tbody> </table>	PRICE	CODE	55p	PAK 087
PRICE	CODE																		
55p	PAK 069																		
PRICE	CODE																		
99p	PAK 075																		
PRICE	CODE																		
99p	PAK 081																		
PRICE	CODE																		
55p	PAK 087																		
 <p>10 BC114 Silicon NPN R097A Plastic 20MHz 30v 200 HFE</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 070</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 070	 <p>5 BCY70/BCY72 Silicon PNP T018 300M/W 200MHz Popular industrial types.</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>79p</td> <td>PAK 076</td> </tr> </tbody> </table>	PRICE	CODE	79p	PAK 076	 <p>4 BF257/BF259 Silicon NPN T05 800M/W 100MHz High voltage TV.</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 082</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 082	 <p>3 B25/05 1/4 amp 50 P.I.V. bridge rectifiers silicon. Full wave space saver. 8 x 8 x 3 m/m</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>45p</td> <td>PAK 090</td> </tr> </tbody> </table>	PRICE	CODE	45p	PAK 090
PRICE	CODE																		
99p	PAK 070																		
PRICE	CODE																		
79p	PAK 076																		
PRICE	CODE																		
99p	PAK 082																		
PRICE	CODE																		
45p	PAK 090																		
 <p>6 BC142 and BC143 Silicon T05 Transistors for domestic applications</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 071</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 071	 <p>2 BD112 Silicon N.P.N. output T03 transistors High power. High current.</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 077</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 077	 <p>5 BFX12/BFX13 Silicon PNP T018 300M/W 230MHz 20v HFE 50</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>85p</td> <td>PAK 083</td> </tr> </tbody> </table>	PRICE	CODE	85p	PAK 083	 <p>2 W005 Silicon bridge rectifiers 1 amp 50 P.I.Volts. Full wave, tubular.</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>55p</td> <td>PAK 091</td> </tr> </tbody> </table>	PRICE	CODE	55p	PAK 091
PRICE	CODE																		
99p	PAK 071																		
PRICE	CODE																		
99p	PAK 077																		
PRICE	CODE																		
85p	PAK 083																		
PRICE	CODE																		
55p	PAK 091																		
 <p>10 BC147/BC148/BC149 Plastic silicon N.P.N. Lock fits for all those domestic replacements</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>89p</td> <td>PAK 072</td> </tr> </tbody> </table>	PRICE	CODE	89p	PAK 072	 <p>3 BD115 Silicon N.P.N. output T039 transistors 6 watts VCBO220</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 078</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 078	 <p>5 BFX88 Silicon PNP T05 600M/W 100MHz 40v. General purpose industrial.</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 084</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 084	 <p>2 W02 Silicon bridge rectifiers 1 amp 200 P.I.Volts. Full wave, tubular.</p> <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>69p</td> <td>PAK 092</td> </tr> </tbody> </table>	PRICE	CODE	69p	PAK 092
PRICE	CODE																		
89p	PAK 072																		
PRICE	CODE																		
99p	PAK 078																		
PRICE	CODE																		
99p	PAK 084																		
PRICE	CODE																		
69p	PAK 092																		

















* CIRCUITS AND DATA INCLUDED

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

<p>1 TBA 820S * Integrated circuit audio amplifier 2 watts into 3 ohms</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>£1.25</td> <td>PAK 093</td> </tr> </tbody> </table>	PRICE	CODE	£1.25	PAK 093	<p>5 CIMOS 4000AE Integrated circuits Cosmos. Latest series 14 pin D.I.L. A selection of gates, flip flops etc.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>89p</td> <td>PAK 099</td> </tr> </tbody> </table>	PRICE	CODE	89p	PAK 099	<p>2 OC29 P.N.P. Germanium output transistors T03 30 watts, high current, 60 volts</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 105</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 105	<p>5 2N2483 Silicon NPN T018 case 60 volts 10 Mcs. Low level amplifier</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>89p</td> <td>PAK 112</td> </tr> </tbody> </table>	PRICE	CODE	89p	PAK 112
PRICE	CODE																		
£1.25	PAK 093																		
PRICE	CODE																		
89p	PAK 099																		
PRICE	CODE																		
99p	PAK 105																		
PRICE	CODE																		
89p	PAK 112																		
<p>6 RED LIGHT EMITTING DIODE Red LED miniature, high brightness. Solid state. Wide viewing</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>89p</td> <td>PAK 094</td> </tr> </tbody> </table>	PRICE	CODE	89p	PAK 094	<p>2 CIMOS 4000 SERIES * Integrated circuits Cosmos latest series. Adders, decoders Complex 14 pin D.I.L.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 100</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 100	<p>5 OC46 Ger. PNP R09 88m/w 3 MHz 20 v 80HFE Low power applications.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 106</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 106	<p>6 2N2904-2N2907A Mixed T05 and T018 Silicon PNP 200 MHz. Low power application.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 113</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 113
PRICE	CODE																		
89p	PAK 094																		
PRICE	CODE																		
99p	PAK 100																		
PRICE	CODE																		
99p	PAK 106																		
PRICE	CODE																		
99p	PAK 113																		
<p>2 2N6290 Plastic power output transistors audio amplifier</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>89p</td> <td>PAK 095</td> </tr> </tbody> </table>	PRICE	CODE	89p	PAK 095	<p>1 BU105 Silicon NPN T03 8 watt 1500 volt High power TV transistor</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>£2.25</td> <td>PAK 101</td> </tr> </tbody> </table>	PRICE	CODE	£2.25	PAK 101	<p>1 OCP71 Germanium photo transistor. General purpose, very popular type.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 107</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 107	<p>6 2N2218 - 2N2222A Mixed T05 and T018 Silicon NPN 250 MHz. Low power applications</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 114</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 114
PRICE	CODE																		
89p	PAK 095																		
PRICE	CODE																		
£2.25	PAK 101																		
PRICE	CODE																		
99p	PAK 107																		
PRICE	CODE																		
99p	PAK 114																		
<p>2 2N6107 Plastic power driver transistors audio amplifier</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>89p</td> <td>PAK 096</td> </tr> </tbody> </table>	PRICE	CODE	89p	PAK 096	<p>10 GET882 - GET897 Germanium PNP T05 120M/W Switching up to 20 v. Mixed experimentors pack</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 102</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 102	<p>1 MC1310P * F.M. IC. Decoder</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>£2.65</td> <td>PAK 108</td> </tr> </tbody> </table>	PRICE	CODE	£2.65	PAK 108	<p>10 2N3135 Sil PNP T018 400 MW. 200 MHz 50 volts. Low power applications</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>89p</td> <td>PAK 115</td> </tr> </tbody> </table>	PRICE	CODE	89p	PAK 115
PRICE	CODE																		
89p	PAK 096																		
PRICE	CODE																		
99p	PAK 102																		
PRICE	CODE																		
£2.65	PAK 108																		
PRICE	CODE																		
89p	PAK 115																		
<p>2 TIP3055 Plastic silicon output transistors High voltage High power output</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 097</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 097	<p>10 FST 3/0 to 3/8 Rectifiers, mixed voltages. 1 amp 50-800 P.I.V. Axial leads. Low cost pack.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>59p</td> <td>PAK 103</td> </tr> </tbody> </table>	PRICE	CODE	59p	PAK 103	<p>10 2N744 Silicon 10 pin T018 300M/W 400 MHz 20 volt. Low power applications</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>89p</td> <td>PAK 110</td> </tr> </tbody> </table>	PRICE	CODE	89p	PAK 110	<p>1 2N3054 Silicon power N.P.N. T066 25 watts 30 KHz 90v. High power</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>55p</td> <td>PAK 116</td> </tr> </tbody> </table>	PRICE	CODE	55p	PAK 116
PRICE	CODE																		
99p	PAK 097																		
PRICE	CODE																		
59p	PAK 103																		
PRICE	CODE																		
89p	PAK 110																		
PRICE	CODE																		
55p	PAK 116																		
<p>1 ZN414 * I.C. Tuner. T018 case for those microminiature circuits.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>£1.39</td> <td>PAK 098</td> </tr> </tbody> </table>	PRICE	CODE	£1.39	PAK 098	<p>1 OC16 Output transistors Germanium PNP 10W. Up to 32 volts 2 amps</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>77p</td> <td>PAK 104</td> </tr> </tbody> </table>	PRICE	CODE	77p	PAK 104	<p>2 2N2160 Unijunction 450 m/w 70 m/A RMS emitter current. 2 amps 30 volts for oscillators and SCR Triggers.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>£1.45</td> <td>PAK 111</td> </tr> </tbody> </table>	PRICE	CODE	£1.45	PAK 111	<p>25 2N3708K, 2N3711K 2N4062 K Silicon NPN and PNP T092 Popular mixed for general applications. A real bargain pack.</p>  <table border="1"> <thead> <tr> <th>PRICE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>99p</td> <td>PAK 117</td> </tr> </tbody> </table>	PRICE	CODE	99p	PAK 117
PRICE	CODE																		
£1.39	PAK 098																		
PRICE	CODE																		
77p	PAK 104																		
PRICE	CODE																		
£1.45	PAK 111																		
PRICE	CODE																		
99p	PAK 117																		

* CIRCUITS AND DATA INCLUDED

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

 <p>1 2N3772 Silicon 150 watt 60 volts 20 amps T03 . Power transistor HFE 15-60 at 10 amps.</p> <table border="1"> <tr><th>PRICE</th><th>CODE</th></tr> <tr><td>£1.69</td><td>PAK 118</td></tr> </table>	PRICE	CODE	£1.69	PAK 118	<p>4 8 PIN D.I.L.SOCKETS Dual in line p plated pins. IC sockets 8 pin</p>  <table border="1"> <tr><th>PRICE</th><th>CODE</th></tr> <tr><td>69p</td><td>PAK 123</td></tr> </table>	PRICE	CODE	69p	PAK 123	<p>2 SCR71 SCR 25 P.I. Volts 12 amps. T048 stud. High current for dimmers etc.</p>  <table border="1"> <tr><th>PRICE</th><th>CODE</th></tr> <tr><td>59p</td><td>PAK 127</td></tr> </table>	PRICE	CODE	59p	PAK 127	<p>10 BAX16 Silicon fast switching rectifiers Popular industrial type.</p>  <table border="1"> <tr><th>PRICE</th><th>CODE</th></tr> <tr><td>55p</td><td>PAK 131</td></tr> </table>	PRICE	CODE	55p	PAK 131
PRICE	CODE																		
£1.69	PAK 118																		
PRICE	CODE																		
69p	PAK 123																		
PRICE	CODE																		
59p	PAK 127																		
PRICE	CODE																		
55p	PAK 131																		
<p>1 2N3773 Silicon 150watts 80 volts 20amps T03 Power transistor. High gain. High current</p>  <table border="1"> <tr><th>PRICE</th><th>CODE</th></tr> <tr><td>£2.20</td><td>PAK 119</td></tr> </table>	PRICE	CODE	£2.20	PAK 119	<p>3 14 PIN D I L SOCKETS Dual in line plated pins. IC sockets 14 pin</p>  <table border="1"> <tr><th>PRICE</th><th>CODE</th></tr> <tr><td>45p</td><td>PAK 124</td></tr> </table>	PRICE	CODE	45p	PAK 124	<p>15 ZL 1.5 WATT ZENERS Zener diodes 1.5 wa watt. Voltages between 3.9 v - 91 v. Axial leads.</p>  <table border="1"> <tr><th>PRICE</th><th>CODE</th></tr> <tr><td>99p</td><td>PAK 128</td></tr> </table>	PRICE	CODE	99p	PAK 128	<p>3 CRS1/10 * SCR. 1 amp T05 100 P.I.V. for speed controllers, dimmers, relays, etc.</p>  <table border="1"> <tr><th>PRICE</th><th>CODE</th></tr> <tr><td>59p</td><td>PAK 132</td></tr> </table>	PRICE	CODE	59p	PAK 132
PRICE	CODE																		
£2.20	PAK 119																		
PRICE	CODE																		
45p	PAK 124																		
PRICE	CODE																		
99p	PAK 128																		
PRICE	CODE																		
59p	PAK 132																		
<p>10 2N5305 Dual transistor. Two for the price of one. High gain - Low cost.</p>  <table border="1"> <tr><th>PRICE</th><th>CODE</th></tr> <tr><td>69p</td><td>PAK 120</td></tr> </table>	PRICE	CODE	69p	PAK 120	<p>2 16 PIN D.I.L.SOCKETS Dual in line plated pins IC sockets 16 pin</p>  <table border="1"> <tr><th>PRICE</th><th>CODE</th></tr> <tr><td>45p</td><td>PAK 125</td></tr> </table>	PRICE	CODE	45p	PAK 125	<p>10 ZS10 10 WATT ZENERS Zener diodes 10 watts. Mixed voltages. Stud mounting.</p>  <table border="1"> <tr><th>PRICE</th><th>CODE</th></tr> <tr><td>99p</td><td>PAK 129</td></tr> </table>	PRICE	CODE	99p	PAK 129	<p>10 IN914 Fast switching diode 4 nano seconds 90 P.I.V. IF.10</p>  <table border="1"> <tr><th>PRICE</th><th>CODE</th></tr> <tr><td>39p</td><td>PAK 133</td></tr> </table>	PRICE	CODE	39p	PAK 133
PRICE	CODE																		
69p	PAK 120																		
PRICE	CODE																		
45p	PAK 125																		
PRICE	CODE																		
99p	PAK 129																		
PRICE	CODE																		
39p	PAK 133																		
<p>2 40636 Silicon power device, High voltage. High current.</p>  <table border="1"> <tr><th>PRICE</th><th>CODE</th></tr> <tr><td>£1.50</td><td>PAK 121</td></tr> </table>	PRICE	CODE	£1.50	PAK 121	<p>2 SCR51 SCRs 25 P.I. Volts 12 amps. T048 Stud. High current for low voltage dimmers</p>  <table border="1"> <tr><th>PRICE</th><th>CODE</th></tr> <tr><td>49p</td><td>PAK 126</td></tr> </table>	PRICE	CODE	49p	PAK 126	<p>6 RS50-RS56 3 amp Stud rectifiers, mixed types 50-60C P.I.V.</p>  <table border="1"> <tr><th>PRICE</th><th>CODE</th></tr> <tr><td>99p</td><td>PAK 130</td></tr> </table>	PRICE	CODE	99p	PAK 130	<p>2 723C Voltage regulator + and - regulation 0-40 volts T05 800 M/W 150 m/A output. Adjustable current limiting</p>  <table border="1"> <tr><th>PRICE</th><th>CODE</th></tr> <tr><td>99p</td><td>PAK 134</td></tr> </table>	PRICE	CODE	99p	PAK 134
PRICE	CODE																		
£1.50	PAK 121																		
PRICE	CODE																		
49p	PAK 126																		
PRICE	CODE																		
99p	PAK 130																		
PRICE	CODE																		
99p	PAK 134																		

Introducing HENRY's

PIK - A - PAK's

Ideal for all Hobbyists - Constructors - Schools etc.

We are pleased to offer for the first time PRE PACKED PRODUCTS which offer a wide selection of popular types, then SUBSTANTIAL SAVINGS are made by purchasing PAK's.



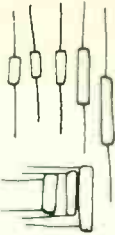


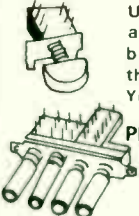









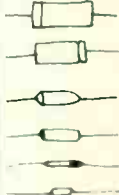




(UNLESS OTHERWISE STATED ALL PRODUCT IS BRANDED, FULL SPECIFICATION & IS FULLY GUARANTEED).

We Offer: WIDE VARIETY - EXCELLENT SELECTION - LOW PRICES








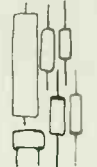












SPECIAL DISCOUNTS 5 PAKS deduct 5% 25 PAKS deduct 15%
10 PAKS deduct 10% 100 PAKS or more, deduct 20%

* CIRCUITS AND DATA INCLUDED

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

<p>PAK 200 5 Potentiometers Mixed values between 1K—2.2 Meg assorted sizes and spindles less switch.</p>  <p>PRICE 50p</p>	<p>PAK 205 8 Skeleton Pre Sets Miniature carbon pre-set pots, mixed values between 20ohms — 2.2 MEG.</p>  <p>PRICE 50p</p>	<p>PAK 210 12 Power Resistors Vitreous carbon and wirewound mixed types and values 1—10 watts.</p>  <p>PRICE 59p</p>	<p>PAK 215 20 Tubular Capacitors Assorted Values between 4.7PF 5000PF mixed voltages</p>  <p>PRICE 50p</p>
<p>PAK 201 8 Potentiometers Assortment of singles and dual controls LOG and LINEAR up to 2 Meg.</p>  <p>PRICE 99p</p>	<p>PAK 206 3 Push button Switches Useful singles and multi push button units for the Do-it-Yourself man.</p>  <p>PRICE 59p</p>	<p>PAK 211 1 MK2P Relay Coded 60.01 Open type 2 pole change over 12V D.C. 6 Amp 250V A.C. coil voltage eq. to Omron Mk2 silver contacts</p>  <p>PRICE 89p</p>	<p>PAK 216 25 Resistors ¼—1 Watt 5% resistors mixed assortment between 10 Ohms — 2.2 Meg</p>  <p>PRICE 50p</p>
<p>PAK 202 4 Precision Micro Pots Miniature potentiometers by Borg 990T and 990PC values between 20 ohms — 50K, gold plated terminal pins. 1 watt at 70°C 100M Ohms insulation resistance. Low noise output, Linear with lead screw rotation for constant input voltage.</p>  <p>PRICE 99p</p>	<p>PAK 207 3 Decoder coils Set of three 10m/m FM decoder coils.</p>  <p>PRICE 99p</p>	<p>PAK 212 30 Precision Resistors 1% and 2% resistors for use in critical circuits and equipment. Mixed values up to 10Megs up to 2 Watt</p>  <p>PRICE 99p</p>	<p>PAK 217 1 MK2P Relay Coded 60.12 8 pin plug in 2 pole 240V A.C. 6 Amp 250V A.C. Relay. Silver contacts, boxed and dust cover. Half million operations.</p>  <p>PRICE 99p</p>
<p>PAK 203 6 Controls A.B. Metal, Egen etc. potentiometers. Minimum 2½" spindles standard types mixed between 5K — 2MEG LOG and LINEAR less switch</p>  <p>PRICE 99p</p>	<p>PAK 208 6 Microswitches Mixed standard and miniature single pole change over</p>  <p>PRICE 99p</p>	<p>PAK 213 20 Disc Capacitors Ideal for small spaces. Selection between 0.0001 MFD 0.05 MFD</p>  <p>PRICE 49p</p>	<p>PAK 218 10 Tantalum Capacitors Tubular tantalum and Castanet for those quality units 0.2 MFD—220MFD 3—150V mixed sizes and values voltages</p>  <p>PRICE 79p</p>
<p>PAK 202 6 Slide Switch Small slide switches with 1 Pole or 2 pole ½ way.</p>  <p>PRICE 79p</p>	<p>PAK 209 1 MK2P Relay Coded 60.12 Plug in 2 pole 6V D.C. 6 amp relay 250V A.C. coil voltage 60.12 I.M.O. equivalent to MK2P Omron Silver contact Min 500,000 operations. Supplied boxed, with dust cover.</p>  <p>PRICE 99p</p>	<p>PAK 214 1 MK2P Relay Coded 60.12 8 pin plug-in 2 pole 48 V D.C. 6 Amp 250 A.C. coil voltage relay eq. to Mk 2P Omron silver contacts, boxed with dust cover. 500K operations.</p>  <p>PRICE 99p</p>	<p>PAK 219 1 MK3P Relay Coded 60.12 11 Pin plug in 48 V D.C. 6 Amp 250V A.C. coil voltage. Silver contacts and dust cover. Long life.</p>  <p>PRICE 99p</p>

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT. CARR Carr/Pack A TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T.

<p>PAK 220 10 Electrolytic Capacitors 1MFD—100MFD Wire ended mixed selection of sizes and values voltages</p>  <p>PRICE 59p</p>	<p>PAK 226 1 Relay 60.12 I.M.O. 2 pole change- over 12V D.C. 6 Amp I.M.O. 250V A.C. coil voltage silver contact and dust cover</p>  <p>PRICE 99p</p>	<p>PAK 231 10 Capacitors Standard selection between 0.1MFD —2MFD 150—350 volts wire ends.</p>  <p>PRICE 79p</p>	<p>PAK 236 60 BUMPER PACK Contains: printed circuit panel with lots of components ALSO: Relay, knobs, pots, quartz crystals, mallyory cells 10 transistors and diodes, transformers, push button switch, IF trans- formers, lots of resistors and capacitors.</p>  <p>PRICE £1</p>
<p>PAK 221 1 MK3P Relays Coded 60.13 11 pin plug in 3 pole changeover 48V A.C. 6 Amp I.M.O. 250V A.C. coil voltage relay 60.13 silver contact and dust cover ½ million operations.</p>  <p>PRICE 99p</p>	<p>PAK 227 10 Quartz Crystals Crystals 10X series between quarter Meg and 50MC/S our selection. Ideal for Hams.</p>  <p>PRICE £1</p>	<p>PAK 232 5 Electrolytic 1000MFD—5000 MFD Wire ended assortment of values voltages</p>  <p>PRICE 89p</p>	<p>PAK 237 20 Capacitor SPECIAL Non electrolytic wide assortment mixed valves, sizes, voltages.</p>  <p>PRICE 59p</p>
<p>PAK 222 6 Electrolytic Capacitors 100MFD—1000 MFD selection of wire ended mixed valves voltages and sizes</p>  <p>PRICE 59p</p>	<p>PAK 228 50 Resistor SPECIAL 50 Resistors of various sizes and values. Our pack mixed 5 and 10%. Good value.</p>  <p>PRICE 50p</p>	<p>PAK 233 5 Electrolytic Can Types 80MFD—5000 MFD Can types assortment of values voltages</p>  <p>PRICE 99p</p>	<p>PAK 238 10 Capacitors Polyester and foil capacitors 20% 250V assortment between 0.01— 2.2 MFD</p>  <p>PRICE 59p</p>
<p>PAK 223 30 Resistors ¼ watt 5% selection of values between 10 Ohms 2.2 Megs</p>  <p>PRICE 50p</p>	<p>PAK 229 1 MK2 Relay Coded 60.02 Open type 2 pole changeover 230V A.C. 6 Amp 250V A.C. coil change over. Silver contacts. Long l ife. Very durable eq. to MK2 series.</p>  <p>PRICE 89p</p>	<p>PAK 234 10 Quartz Crystals FT243 series mixture between 5.7 MC/S and 8650KC/S ½" pin spacing</p>  <p>PRICE £1.50</p>	<p>PAK 239 1 Relay Plug in relay with cover 2 pole or 3 pole 6 amp 250V A.C. coil voltage silver contacts long life, mixed voltages</p>  <p>PRICE 99p</p>
<p>PAK 224 1 I.M.O. Relay Coded 60.43 2 pole open type 24V D.C. 6 Amp 250V A.C. Coil voltage long life</p>  <p>PRICE 89p</p>	<p>PAK 230 10 Electrolytic SPECIAL A mixture of sizes/Values voltages between 1MFD—5000MFD YOU WON'T BE DISAPPOINTED</p>  <p>PRICE 99p</p>	<p>PAK 235 1 Relay Open type chassis 2 pole changeover 6 Amp 250V A.C. coil voltage silver contacts long life. Ideal for experimenter Voltage 12 A.C.</p>  <p>PRICE 69p</p>	<p>PAK 240 Anyones Guess SUPRISE PACK Contains a wealth of elec- tronic components If purchased separately, would cost many times more than our selling price. YOU WON'T BE DISAPPOINTED</p>  <p>PRICE £1</p>

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARR/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. PRICE INCLUSIVE OF V.A.T. Carr/pack A

NEW EXCITING

Play Video Ball Games on your own Television

THE FANTASTIC

Videosport

BRITISH MADE

THREE GAMES



FOOTBALL – TENNIS
& HOLE-IN-THE-WALL



Ideal for all ages.

Simply plugs into the Aerial socket of your TV (B/W or colour)

Mains operated, use's no more electricity than a light bulb. Horizontal & vertical movement.

**SUITABLE FOR ALL
MAKES OF TV'S –
CHILD PROOF – FOOL PROOF**

ASSEMBLED &
READY TO USE

PRICE	CODE
£29.50	H001

Ins/Carr/Pack £2.50

The whole family can now enjoy the fun, thrills and excitement of Videosport Football, Tennis and Hole in the Wall, from the comfort of their favourite armchair. Just plug into the aerial socket at the back of your TV, select the game you want to play and away you go.

It will astound and amaze your friends. By playing regularly, you'll find that your reactions become faster, giving you the edge over your opponents.

THE 3 IN 1 VIDEOSPORT UNIT IS MAINS OPERATED, AND PACKED INTO ITS COMPACTNESS IS YEARS OF BRITISH RESEARCH AND DEVELOPMENT FOR YOUR PLEASURE AND ENJOYMENT.

VIDEOSPORT FOOTBALL (FOR TWO PLAYERS)

Select football, flick the goalkick button and the game's in motion. Each player has full mobility up and down and across the screen. When a goal is scored the game is re-started by flicking the goalkick button. As your expertise and reactions improve you will score and save more goals. You choose the length of each game and change ends at half time.

VIDEOSPORT TENNIS (FOR TWO PLAYERS)

Select Tennis, toss a coin and serve. Both bats have full mobility from baseline to the net and the full width of the court. No disputes over won points because the loser has to serve to get the game back in motion by pressing the serve button on his hand control console. Just to add to the excitement the ball has built-in spin and pitches at an unexpected angle just when you think you have it covered and the situation under control. If you wish you can play a form of doubles, two players per hand control taking it in turn to return the ball.

VIDEOSPORT HOLE-IN-THE-WALL (FOR ONE PLAYER)

An exciting game developed for the solo player. The object is to slip the ball through a small hole in the wall. Both bat and hole are moved with the same control. It's a lot harder than it sounds, but with practice your skill will overcome the difficulties.

NOW AVAILABLE AS A COMPLETE KIT OF PARTS WITH CABINETS (Nothing else to purchase)

ORDER NOW WHILST STOCKS LAST TO AVOID DISAPPOINTMENT

PRICE	CODE
£19.50	H002

Ins/Carr/Pack £2.50

WHERE PRICE IS NOT SHOWN AGAINST ITEM, REFER TO PRICE SUPPLEMENT.
TO CONVERT CARRIAGE/PACKING CODE REFER TO PAGE 2 OF CATALOGUE. **PRICE INCLUSIVE OF V.A.T.**

HENRY'S

1976 Catalogue

(Available early 1976)

(WITH 50p VOUCHER)

RESERVE YOUR COPY NOW & SAVE

BY PAYING TODAY'S PRICE OF **75p** including Carr/Pack.

(There is every possibility it will be more expensive by 1976)

This new catalogue is a must for anyone interested in Electronics.

In fact, it's one publication that you cannot really afford to be without.

So treat yourself – or better still, get your wife to treat you – to the

***most up to date
and comprehensive
HENRY'S catalogue yet,***

by using the special privilege order form below.

TO HENRY'S 'FREEPOST' LONDON W2 6BR

Please reserve me a copy of your 1976 catalogue.

I enclose POs / Chq. / Cash to the value of 75p.

NAME MR/MRS/MISS

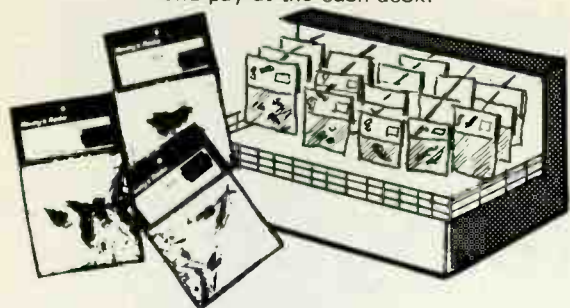
ADDRESS



H

SUPERMARKET

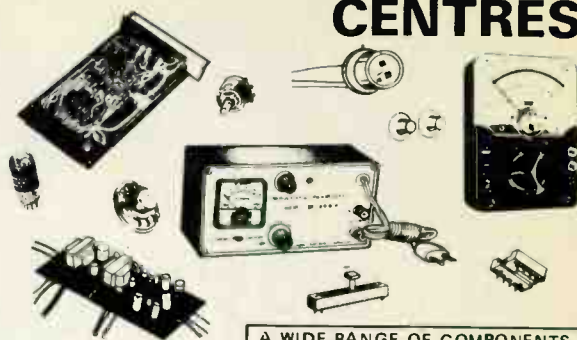
Shop for your components the modern way.
No queuing, or waiting. Just select your requirements and pay at the cash desk.



A varied selection of components available.
Come and browse around.

404, EDGWARE ROAD, LONDON W2
(Open Monday to Saturday, 9 a.m. to 6 p.m.)

ELECTRONIC'S CENTRES



A WIDE RANGE OF COMPONENTS & EQUIPMENT ALWAYS IN STOCK

404, EDGWARE ROAD, LONDON, W2
(Open Monday to Saturday 9 a.m. to 6 p.m.)

303, EDGWARE ROAD, LONDON W2
(Open Monday to Wednesday, Friday & Sat. 9 a.m. to 6 p.m.)
(Closed all day Thursday)

HENRY'S

MAIL ORDER DEPT.



**SUPPLIERS TO THE GENERAL PUBLIC,
EDUCATIONAL ESTABLISHMENTS,
AND TRADE SOURCES.**

All orders to:—
HENRY'S "FREEPOST" LONDON W2 6BR
Leaflet & Enquiries to:—
303, EDGWARE ROAD, LONDON W2 1BW

EXPORT DEPARTMENT



Your order delivered to ANY corner of the world

All orders and enquiries to:—
EXPORT DEPARTMENT
303, EDGWARE ROAD, LONDON W2 1BW

H

We are always pleased to receive your enquiries regarding —
STOCK AVAILABILITY OF UNUSUAL ITEMS, QUOTATIONS FOR PROJECTS,
AND COST OF DESPATCHING GOODS TO FOREIGN SHORES.

ERRATUM

Page	Item	Code	Price
B15	SP25 Mk 4	B181	£21.00
B15	MSP25/M75-6	B182	£40.00
B15	MP60/TPD	B183	£33.30
	BDS8/TPD/K7E		£43.00
	BDS80 chassis		£27.00
B15	BSR MP60	B185	£17.90
B15	HT70 chassis	B186	} <i>Discontinued</i>
B15	HT70/TPD	B187	
B15	HT70/TPD/K8	B188	
B15	610 chassis	B189	
B15	710 chassis	B190	£47.25
B15	810 chassis	B191	£58.50
G1	TML33	G001	£7.50
G1	ITI-2	G003	£6.00
G1	AF105	G004	£13.00
G1	AF105 case	G005	£2.75
G5	700	G025	£38.61
G5	700 case	G026	£6.53
G5	TMK 700B	G027	£42.12
G5	500	G028	£17.55
G5	500-150 case	G029	£3.27
G6	150	G034	£26.73
G6	TW 20CB	G035	£22.30
G6	TW 20S	G036	£15.44
G6	TW case	G037	£3.24
G7	TW 50K	G043	£16.93
G7	TP 5SN	G044	£12.47
G7	TP case	G045	£2.97
G7	TP 10S	G046	£10.10
G8	AVO 8 Mk 5	G052	£68.51
G8	AVO 8 case	G053	£14.86
G8	AVO Multi Minor	G054	£22.74
G17	TE22	G117	£25.00
G17	TE22D	G118	£26.50
G17	TE20D	G119	£23.50
G17	TE40	G120	£26.50

H

NOTES

H

NOTES

H

NOTES

H

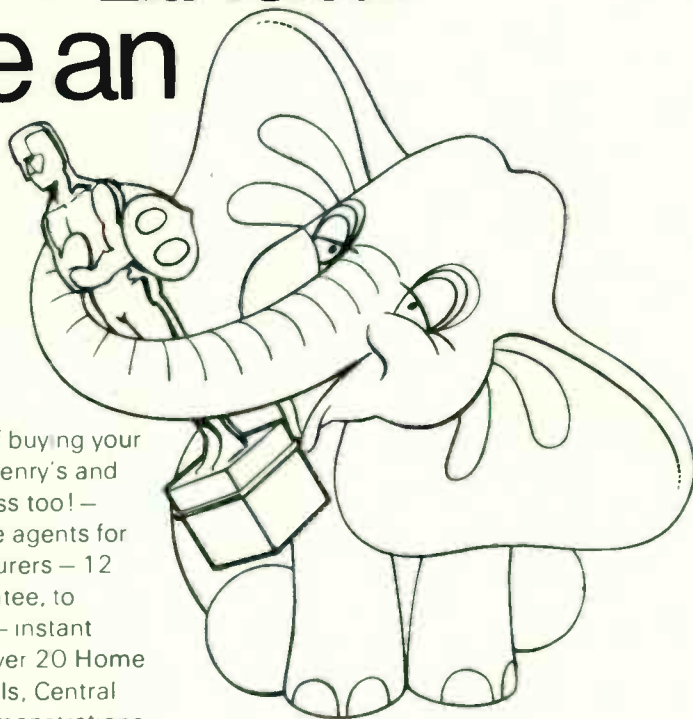
NOTES

H

NOTES

H

In the world of audio entertainment, Henry's + Lindair deserve an Oscar!



Just look at all the advantages of buying your next audio or hi-fi system from Henry's and Lindair – low prices, so VAT is less too! – unbiased advice, because we are agents for over 70 world famous manufacturers – 12 months' parts and labour guarantee, to ensure long-lasting satisfaction – instant credit for callers, at any one of over 20 Home Entertainment Centres in Brussels, Central London or out-of-town – and demonstrations at *every* Centre!

On top of all that, Henry's and Lindair offer you the widest selection of equipment on the market. Plus the combined expertise of the staff of the recently merged Henry's and Lindair organisations. Even before the

merger, each was a powerful force in audio entertainment. Together, they are unbeatable!

With all this going for Henry's and Lindair, who'd bother going anywhere else!

HENRY'S + LINDAIR

TOTTENHAM COURT RD LONDON W1

Lindair House
227 Tottenham Ct Rd W1 01-580 7383
230 Tottenham Ct Rd W1 01-530 1785
231 Tottenham Ct Rd W1 01-636 6682
241/2 Tottenham Ct Rd W1 01-580 2255
245 Tottenham Ct Rd W1 01-323 4949

EDGWARE RD LONDON W2

354 Edgware Rd W2 01-402 5854
372 Edgware Rd W2 01-402 8140
376/8 Edgware Rd W2 01-723 0818
299/301 Edgware Rd W2 01-262 2251
120 Shaftesbury Ave W1 01-437 9692
137 Charing Cross Rd WC2 01-437 8718

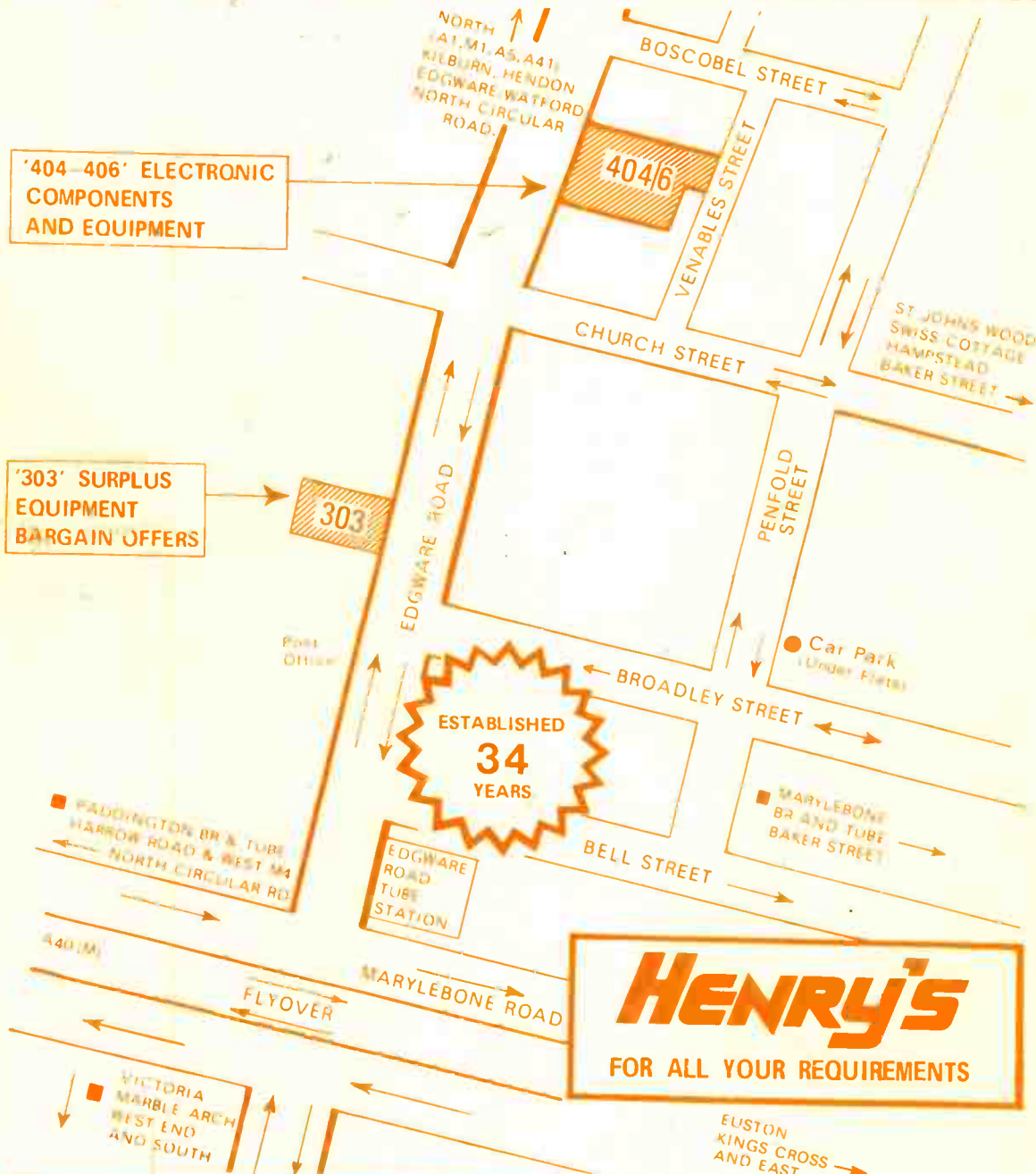
OUT-OF-TOWN

190/4 Station Rd Harrow Middx 01-863 7788
144 Burnt Oak B'way Edgware 01-952 7402
55 Gloucester Rd Bristol 7 0272 45791
179/181 Victoria Rd Aldershot Hants 0252 314856
256 Banbury Rd Oxford 0865 53072
94/96 Upper Parliament St Nottingham 0602 40403

E. Day

HENRY'S RADIO Edgware Road London W.2.

ENGLANDS LEADING ELECTRONICS CENTRES
ELECTRONIC COMPONENTS AND EQUIPMENT • PUBLIC ADDRESS • RETAIL AND INDUSTRIAL SALES



'404-406' ELECTRONIC COMPONENTS AND EQUIPMENT

'303' SURPLUS EQUIPMENT BARGAIN OFFERS

ESTABLISHED 34 YEARS

HENRY'S
FOR ALL YOUR REQUIREMENTS

HENRY'S Radio ELECTRONIC COMPONENTS & EQUIPMENT STORES	404-406 Electronic Components and Equipment 01-402 8381	Open - 9 a.m. - 6 p.m. All Stores open all day Saturday.
	94-96 Upper Parliament Street Nottingham 0602 40403	
	231, Tottenham Court Road, London W.1. (Closed Mon.)	
	303 Special offers and bargains store (Closed all day Thurs.)	
ALL MAIL TO 303 EDGWARE ROAD, LONDON W2 1BW		

MAIL ORDERS (ONLY) TO: HENRY'S RADIO, FREEPOST, LONDON W2 6BR
CABLES: TELEGRAMS: HENELEC LONDON W2 TELEX: 28116 (TRANSONICS LONDON)