Dear Customer,

As you look through this catalog you will see that the famous QRK turntables and Rek-O-Kut tone arms are now part of Broadcast Electronics. With consoles, Spotmaster Cartridge machines, QRK turntables, Rek-O-Kut tone arms, program automation systems and FM transmitters, Broadcast Electronics is one of the world's largest manufacturers of radio broadcasting equipment.

Our expanded 50,000 square feet modern plant is one of the world's largest facilities devoted entirely to the manufacture of radio broadcast equipment.

The list of Spotmaster equipment users ranges from the most senior U.S. radio stations and networks, such as KDKA and NBC, to the most prestigious overseas broadcast organizations, such as the BBC.

Broadcast Electronics, Inc. is a wholly owned subsidiary of Filmways Inc., Los Angeles, California. Filmways is a diversified company with $168 million revenues in Fiscal 1980, and is engaged in television and motion picture production and distribution, publishing, operation of recording studios, insurance and manufacturing.

Our company is staffed with an abundance of technically trained and experienced personnel in all departments. We're specialists; and our knowledge of and attention to broadcast equipment has allowed us to design and manufacture products precisely suited to broadcasters' needs.

With emphasis on technology and a large investment in product development, you can look to Broadcast Electronics for many more reliable new products, engineered always with the broadcaster in mind.

Lawrence J. Cervon
President

Curtis I. Kring
Vice President Marketing
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GENERAL DESCRIPTION

Totally new, Broadcast Electronics' 2100 family of tape cartridge machines combines versatile operation, quality components and top specifications, all at an economical price. There's more value in the 2100 series than ever found before in any professional cart machine. The combination of advanced engineering design and Broadcast Electronics' cost saving production methods produces a cart machine with double value for the most quality minded users and for those who can now afford the best.

The 2100 series has numerous benefits making it just right for nearly any application: Flexibility in size of carts accepted — A, B or C; Two cue tones (1 kHz and 150 Hz) are standard; Modular construction for easy field maintenance; Top quality Nortronics heads for exceptional performance; Direct drive transport and ½ inch aluminum deck for rugged, reliable operation; New Phase Lok IV head assembly for azimuth adjustment independent of height and zenith adjustments; Exclusive Mono/Stereo switching to aid in future conversions from mono to stereo broadcasting.

BOTH STEREO AND MONOAURAL MODELS — Whether for monaural or stereo, the series 2100 is a complete new line of cartridge machines. Playback only or Record/Playback are the same physical size and offered in stereo or monaural versions. Also available is the new Model 2100PA Monitor/Playback unit.

PHASE LOK IV HEAD ASSEMBLY — The head assembly features high quality Nortronics heads and the new Spotmaster Phase Lok IV head bracket. This head bracket has an azimuth adjustment which is independent of height and zenith, and provides the most precise head positioning possible. Head shielding to prevent hum pickup is extensive. The underside of the deck is covered with a steel plate. Above the head is a mu-metal shield, which has an extremely high rejection of magnetic flux. Additional shielding is provided by a steel plate located directly under the head recessed into the deck.

FEATURES

- Top Quality at an Economical Price
- Accepts A, B or C size Carts
- Two Cue Tones Standard (1 kHz and 150 Hz)
- Exclusive Mono/Stereo Switching
- Direct Drive Transport
- Modular Construction
- Quality Nortronics Heads
- New Phase Lok IV Head Assembly
- Low Voltage Air Damped Solenoid
- ½ Inch Aluminum Deck

TAPE TRANSPORT/COOL OPERATION — The tape transport features a powerful, direct-drive hysteresis synchronous motor, a large air damped solenoid with a teflon coated plunger, and a ½ inch thick precision aluminum deck.

The 2100 series of cart machines uses Broadcast Electronics' exclusive cut away top cover design which allows an "A" size machine to accommodate A, B, & C size cartridges.

Another key feature of the 2100 design is the solenoid control circuit which applies 36 volts at the beginning of the start cycle for a fast, sure start and then drops to 18 volts. This results in safer, cooler, transient-free operation, which is usually not found in machines using 110 volt solenoids.

The overall reliability inherent in this design has been demonstrated in life cycle testing programs which have, on a number of occasions, cycled this machine through two million operations without failure.

The cartridge guidance system provides very precise positioning. The cartridge is directed down into the head by a tapered side guide and locked in place by a beryllium-copper clamp which insures positive locking regardless of variations in cartridge thickness. The tensile strength of this clamp is exceptional and it will retain this strength throughout many years of use.

MONO/Stereo SWITCHING — The model 2100 employs Broadcast Electronics' exclusive automatic mono/stereo switching. This allows mono cartridges that have been previously recorded on any other tape cartridge machine to be played on a 2100 stereo machine with program material available from the left and right outputs.

This is accomplished by automatically recording a 150 Hz cue tone along with the normal 1 kHz cue tone at the beginning of the message.
When the machine detects both tones together the left channel preamp output is substituted for the right channel preamp output. This offers full compatibility to mono users who wish to convert their operation to stereo since all previously recorded cartridges can easily be encoded with the mono control signal (150 Hz + 1 kHz tones). A front panel LED indicates when the machine is in the mono play mode.

In addition to the standard 1 kHz tone, a 150 Hz tone sensor is included in the series 2100. This sensor provides information to the mono/stereo control circuit as well as closing a pair of relay contacts for external use. When both the 1 kHz and 150 Hz tones are detected together (mono detection) the relay contacts do not close. These detectors use active RC filters which provide very precise detection.

MODULAR CONSTRUCTION — Modular construction is used throughout the 2100 cart machine to allow simple field maintenance. The playback and record electronics are located on two individual PC boards that plug into a motherboard, which provides inter-connection, power supply and solenoid drive circuitry. The motor, solenoid, power transformer, and front and rear panels all plug into the motherboard.

Power supplies are all regulated and are thermally as well as overload protected. All logic in the 2100 series is provided by CMOS devices.

PLAYBACK CIRCUITRY — The playback amplifier consists of wideband IC operational amplifiers, advanced analog switching and differentially balanced output amplifiers. The amplifiers have an exceptionally wide equalization adjustment range to compensate for head wear, a feature which prolongs useful head life. The solid-state output amplifiers will deliver output levels up to +20 dBm before clipping thereby minimizing the potential for distortion with high level signals.

RECORD CIRCUITRY — The record circuitry has differentially balanced inputs followed by high performance IC operational amplifiers. These input circuits have extremely wide dynamic operating ranges which allow them to cleanly handle a greater range of signals than any competitive machine. This high level of signal handling ability, which is inherent throughout the design, contributes significantly to the high quality of reproduction which is characteristic of the 2100 series.

Stereo 2100 series machines can be used to record carts compatible with mono machines. A front panel LED indicates when the machine is in the mono record mode. At this time the left and right inputs are summed together and recorded on the left channel. In addition, the mono encode tone (150 Hz + 1 kHz) is recorded on the cue track. The 150 Hz secondary cue tone and logging information can be recorded in either the record or playback mode, as full bias switching is incorporated into this machine. External inputs and outputs, and bias switching are available on the cue track.

VU meters are automatically switched between the playback and record modes.

SPACE SAVING DESIGN — The space saving design of the Series 2100 permits side by side mounting of three 2100s in a 19-inch rack. Each machine is only 5.875" wide, 5.25" high and 15.5" deep.

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>2100P</td>
<td>907-2110</td>
<td>Mono Playback; 115 V/60 Hz</td>
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<tr>
<td>2100RP</td>
<td>907-2111</td>
<td>Mono record/play; 115 V/60 Hz</td>
</tr>
<tr>
<td>2100PS</td>
<td>907-2112</td>
<td>Stereo playback; 115 V/60 Hz</td>
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<tr>
<td>2100RPS</td>
<td>907-2113</td>
<td>Stereo record/play; 115 V/60 Hz</td>
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<tr>
<td>2100PA</td>
<td>907-2124</td>
<td>Mono Monitor/Playback; 115V/60Hz</td>
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<tr>
<td>2100P</td>
<td>907-2120</td>
<td>Mono Playback; 220 V/50 Hz</td>
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<td>907-2121</td>
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<td>907-2123</td>
<td>Stereo record/play; 220 V/50 Hz</td>
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<tr>
<td>2100PA</td>
<td>907-2125</td>
<td>Mono Monitor/Playback; 220V/50Hz</td>
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<tr>
<td>907-2114</td>
<td></td>
<td>Rack Mount Shelf for E1A 19&quot; Rack</td>
</tr>
<tr>
<td>471-2101</td>
<td></td>
<td>Top cover for shelf above</td>
</tr>
<tr>
<td>503-2122</td>
<td></td>
<td>Rack Shelf Filler Panel, 1/2 Rack</td>
</tr>
<tr>
<td>503-2123</td>
<td></td>
<td>Rack Shelf Filler Panel, 1/2 Rack</td>
</tr>
<tr>
<td>919-2100</td>
<td></td>
<td>Extender, P.C. Boards</td>
</tr>
</tbody>
</table>

Phase Lok IV Head Bracket

In the Phase Lok IV Head Bracket the height and zenith adjustments are not affected by azimuth adjustment. This assures extremely tight control of stereo phasing.
Series 2100

MONITOR/PLAYBACK
MODEL 2100PA — The model 2100PA is a playback unit with full monitoring capabilities. It features the same outstanding mechanical and electronic performance as the rest of the Series 2100 cartridge tape machines.

The 2100PA incorporates a built-in amplifier, front panel speaker, volume control and headphone jack—everything necessary to monitor the content of pre-recorded NAB size A, B and C carts in a single compact unit.

The versatile 2100PA has a variety of applications. It can be used in virtually any location since it does not have to be interfaced with audio mixers, amplifiers or other production equipment.

The news department will appreciate being able to write lead-ins and out-cues and time news stories from the convenience of any desk. For private listening merely plug a headset in and the front panel speaker is muted.

The 2100PA is also a great sales aid. It can be used to play demo tapes to a prospective client either in the sales office or the client’s own office. When used with a telephone coupler, the 2100PA saves time by allowing the client to approve commercial copy over the phone.

Music programming is also made easier with the 2100PA. Programmers can time cuts and intros or review the music recorded on carts without tying up the production room.

Of course, the 2100PA can also be used as a regular mono playback machine for on-air broadcasting. The on-air output is available even when the unit is in the "monitor" mode with no switching necessary. The speaker and headphones can also be muted remotely.

SPECIFICATIONS

SERIES 2100

Tape Speed: 7.5 ips (19.05 cm/s)

Timing Accuracy (at 7.5 ips): 0.1%

Wow and Flutter: 0.15% peak weighted

Noise (Reproducer):
Monophonic: 62 dB or better below reference of 400 Hz at 3% THD; 54 dB below 160 nWb/m at 1 kHz
Stereophonic: 60 dB or better below reference of 400 Hz at 3% THD; 52 dB below 160 nWb/m at 1 kHz

Distortion: 2% or less record to playback at 160 nWb/m, 1 kHz

Equalization: NAB, IEC, CCIR as specified

Frequency Response:
≤ 2 dB from 50 Hz to 15 kHz exclusive of head contour effect

Crosstalk (magnetic head limited):
Cue channel to program channel, monophonic
150 Hz: 50 dB or better
1000 Hz: 55 dB or better

Input Impedance (Record Models):
78 Kohms, balanced, bridging.

Input Levels:
18 to +20 dBm (100 mV to 7.7 V)

Audio Output:
Balanced, maximum adjustable level +8 dBm into 600 ohm load from 160 nWb/m at 1 kHz

Peak Output Level:
+20 dBm before clipping

Bias Oscillator Frequency:
100 kHz

Cue Signals:
Relay contact closure for external control

Range: (150 Hz)

External cue input/output available for other control functions

Ambient Operating Temperature: 0° to 55° C (32° to 132° F)

Power Requirements:
105 to 130 V or 210 to 230 V, 50 or 60 Hz, as specified

Power Consumption: 40 W continuous

Mounting: Desk top standard. Adaptors for rack mounting optional

External Connectors:
Mating plugs furnished

Dimensions:
5.25” H, 5.875” W, 15.5” D
13.3 cm H, 14.9 cm W, 39.4 cm D
(Add 0.375” to height for rubber feet)

Weight (packed): all models
28 lbs. (12.7 kg)
GENERAL DESCRIPTION

Series 3000 machines have all the standard features: a direct-drive hysteresis synchronous motor, an air damped solenoid with excellent reserve capability, and a 

PHASE LOK III HEAD BRACKET — Phase Lok III by Spotmaster improves stereo phase performance. This unique head bracket has an azimuth adjustment which is totally independent of height and zenith and offers the most precise head positioning possible. All stereo playback models are also equipped with a dummy head to insure correct stereo tracking.

SOLENOID CONTROL CIRCUIT — A key feature of the Spotmaster design is the solenoid control circuit. This is a low-voltage, current regulated source which is applied through a solid-state switch. With this circuit, solenoid operation is not affected by ac line variations, heat dissipation is reduced, and the combination of low voltage and solid-state switching significantly enhances reliability. A further benefit is the elimination of a potential source of noise that is present with high level ac switching.

The overall reliability inherent in this design has been demonstrated in life cycle testing programs which have, on a number of occasions, cycled this machine through two million operations without failure.

FEATURES

- A Professional Quality Monaural Or Stereo Cart Machine
- Direct Drive Motor, Air Damped Solenoid
- Automatic or Manual Fast Forward Option

CARTRIDGE GUIDANCE SYSTEM — The cartridge guidance system provides very precise positioning. The cartridge is directed down into the head by a tapered side guide and locked in place by a beryllium clamp which insures positive locking regardless of variations in cartridge thickness. The tensile strength of this clamp is exceptional and it will retain this strength throughout many years of use.

RECORD CIRCUITRY — The record circuitry has balanced inputs followed by high performance IC operational amplifiers. These input circuits have extremely wide dynamic operating ranges which allow them to cleanly handle a greater range of signals than any competitive machine. This high level of signal handling ability, which is inherent throughout the design, contributes significantly to the high quality of reproduction which is characteristic of the 3000 Series.

PLAYBACK CIRCUIT — The playback amplifier consists of wideband IC operational amplifiers, FET muting circuits, and output amplifiers with wide dynamic ranges. The amplifiers have an exceptionally wide adjustment range for compensating for head wear, a feature which prolongs useful head life. The solid-state output amplifiers will deliver output levels of up to ~20 dBm before clipping, thereby minimizing the potential for distortion with high level signals.
**Specifications**

**Tape Speed:**
- 7.5 ips (19.05 cm/s.)

**Timing Accuracy (at 7.5 ips):**
- 0.1%

**Fast-Forward Tape Speed (optional):**
- 22.5 ips (57 cm/s.)

**Tape Start/Stop Time:**
- 0.1 second maximum.

**Wow and Flutter:**
- 0.15% peak weighted
- 0.2% RMS unweighted.

**Noise (Reproducer):**
- Monophonic: 62 dB or better below reference of 400 Hz at 3% THD; 54 dB below 160 nWb/m at 1 kHz.
- Stereophonic: 60 dB or better below reference of 400 Hz at 3% THD; 52 dB below 160 nWb/m at 1 kHz.

**Distortion:**
- 2% or less record to playback at 160 nWb/m at 1 kHz.

**Equilization:**
- NAB, IEC, CCIR as specified.

**Frequency Response:**
- +2 dB from 50 Hz to 15 kHz exclusive of head contour effect.

**Crosstalk (magnetic head limited):**
- Cue channel to program channel, monophonic:
  - 150 Hz: -50 dB or better
  - 1000 Hz: -55 dB or better
  - 8000 Hz: -50 dB or better
- Stereophonic, crosstalk between program channels: better than 50 dB, 50 Hz to 15 kHz.

**Input Impedance (Recorder):**
- Microphone (optional): 150 ohms (transformer) balanced floating.
- Line: 50 k ohms (transformer) balanced floating.

**Input Levels:**
- Microphone (optional): 70 to 24 dBm
- Line: 24 to +20 dBm (50 mV to 7.7 V).

**Audio Output:**
- Maximum adjustable level: +8 dBm from 160 nWb/m at 1 kHz; 600 ohms (transformer) balanced.

**Peak Output Level:**
- +20 dBm before clipping.

**Cue Signals:**
- Relay contact closure for external control (150 Hz, 8 kHz).

**Ambient Operating Temperature:**
- 0° to 55° C (32° to 131° F).

**Power Requirements:**
- 105 to 125V/210 to 230V; 50 or 60 Hz. 45 to 50 W maximum.

**Mounting:**
- Desk top standard. Adaptors for rack mounting optional.

**External Connectors:**
- Mating plugs furnished.

**Dimensions:**
- 3100: 5¼" H, 5¼" W, 15½" D (13.3 × 14.9 × 39.4 cm)
- 3200: 5¼" H, 8¾" W, 15½" D (13.3 × 22 × 39.4 cm)
- 3300: 5¼" H, 11¾" W, 15½" D (13.3 × 29.8 × 39.4 cm)

**Weight (packed):**
- 3100: 28 lbs. (12.7 kg)
- 3200: 33 lbs. (15.0 kg)
- 3300: 37 lbs. (16.8 kg).

**Available Models**

Series 3000 is a family of tape cartridge machines with the industry's widest choice of models and options. This series offers the Broadcaster an exceptional degree of flexibility in customizing a record/playback system for a particular studio.

Model 3100 Slim Line is a space saving design for playback of A size cartridges. It is available in mono and stereo. 3100's are only 5⅝" wide and three units can mount side-by-side in 19" of rack space.

Model 3200 is a full feature machine available with complete record/playback capability for A and B cartridges, yet it is only 8⅜" wide. Two machines can fit into 19-inches of rack space. It is available in mono and stereo, record/playback and playback only.

Model 3300 is available to handle A, B and C-size cartridges. It is available in record/playback and playback only for both mono and stereo.

**Available Options**

**Secondary and Tertiary Cue Tones**
- Options include front panel indicator switches, oscillators (record models) and detectors for 150 Hz and 8 kHz tones; contact closures are provided for external control.

**Manual Fast Forward**
- Spring loaded front panel switch, when pressed advances the tape at 3x normal speed to next cue tone.

**Automatic/Manual Fast Forward**
- Includes secondary and tertiary cue tones — in automatic operation machine detects end-of-message (150 Hz) cue tone and automatically advances at 3x normal speed to next cue tone (audio is muted during advance). Manual Operation, as described above, is included in this option.

**Remote Control Unit**
- Five models available: offers duplication of essential front panel functions.

**Other Options**
- Microphone input; 220V 50 Hz power; IEC, CCIR equalization, rack mounting; 3¼ ips tape speed.
HIGHLIGHTS OF THE SERIES 3000 TAPE TRANSPORT — includes A Phase Lok III Head Bracket; B mu-metal magnetic shield; C high tensile beryllium clamp for locking the cartridge in place; D tapered guide which directs the cartridge down into the head; E a precision one-half inch thick aluminum deck; F under-the-head magnetic shielding provided by a mu-metal plate which is recessed into the deck for optimum cartridge seating; and G a large air damped solenoid with exceptionally reliable chain linkage. Not visible in the picture is the plate on the underside of the deck which provides additional head shielding.

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>3100P</td>
<td>906-3100</td>
<td>Mono, Playback Only, A Size Cartridges</td>
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<tr>
<td>3100PS</td>
<td>906-3101</td>
<td>Stereo, Playback Only, A Size Cartridges</td>
</tr>
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<td>3200P</td>
<td>906-3200</td>
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<td>906-3201</td>
<td>Mono, Record/Playback, A &amp; B Size Cartridges</td>
</tr>
<tr>
<td>3200PS</td>
<td>906-3202</td>
<td>Stereo, Playback Only, A &amp; B Size Cartridges</td>
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<td>3200RPS</td>
<td>906-3203</td>
<td>Stereo, Record/Playback, A &amp; B Size Cartridges</td>
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<tr>
<td>3200RP/DL</td>
<td>906-3204</td>
<td>Mono, Delay Programmer, A &amp; B Size Cartridges</td>
</tr>
<tr>
<td>3300P</td>
<td>906-3300</td>
<td>Mono, Playback Only, A, B, &amp; C Size Cartridges</td>
</tr>
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<td>3300RP</td>
<td>906-3301</td>
<td>Mono, Record/Playback, A, B, &amp; C Size Cartridges</td>
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<td>3300PS</td>
<td>906-3302</td>
<td>Stereo, Playback Only, A, B, &amp; C Size Cartridges</td>
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<td>3300RPS</td>
<td>906-3303</td>
<td>Stereo, Record/Playback, A, B, &amp; C Size Cartridges</td>
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<tr>
<td>3300RP/DL</td>
<td>906-3304</td>
<td>Mono, Delay Programmer, A, B &amp; C Size Cartridges</td>
</tr>
</tbody>
</table>

FACTORY INSTALLED OPTIONS

| 906-3000 | Q Trip I & II (150 Hz and 8 kHz), Playback Only Models |
| 906-3001 | Q Trip I & II (150 Hz and 8 kHz), Record/Playback Models |
| 906-3002 | Adjustment of Equalization to IEC/CCIR Specifications |
| 906-3003 | Microphone Input Option, Mono Record/Playback Models |
| 906-3004 | Microphone Input Option, Stereo Record/Playback Models |
| 906-3005 | Manual Fast Forward, All Models, without Q Trip I & II |
| 906-3006 | Automatic and Manual Fast Forward, Playback Only Models with Q Trip I and II (150 Hz and 8 kHz) |
| 906-3007 | Automatic and Manual Fast Forward, Record/Playback Models with Q Trip I and II (150 Hz and 8 kHz) |
| 906-3008 | Additional cost for 117 VAC/50 Hz; or 220 VAC/240 VAC/50 Hz |
| 906-3009 | Additional cost for alternate 3.75 IPS tape speed |

ACCESSORIES

| 906-3013 | Rack Mount Shelf for EIA 19" Rack |
| 471-0098 | Top Cover for 906-3013 Shelf |
| 503-0022 | Rack Shelf Filler Panel, 3/4 Rack |
| 919-1504 | Transistor/IC kit for 3200P/RP |
| 906-3016 | 3000 Remote Control Panel, START for 5 Units |
| 906-3019 | 3000 Remote Control Panel, Single Record/Playback Model |
| 906-3020 | Remote Control Panel, Single Playback with cue tones |
| 906-3021 | Remote Control Panel, Single Playback (without cue tones) |
| 906-3028 | Remote Control Panel with start/stop and fast forward switches for 5 Series 3000 machines |
FEATURES

- Rack mounts without additional accessories
- Handles A, B and C sized carts
- Same performance specifications as 3000 series carts
- Full range of options available

RACK MOUNTING MODEL — The Model 3400 has all the features of the standard 3000 Series cartridge machine, but is designed into a rack mountable assembly with no shelf or filler panels necessary. The 3400 handles A, B, and C size carts and comes standard as a rack mount unit, for use in any 19-inch rack. It can also be used for desk top operation when equipped with an optional cover.

AVAILABLE MODELS — The 3400 is available in both monaural and stereo models, and in record and record/playback configurations. All of the series 3000 options are available for the 3400 series.

PHASE LOK III HEAD BRACKET — Phase Lok III by Spotmaster improves stereo phase performance. This unique head bracket has an azimuth adjustment which is totally independent of height and zenith and offers the most precise head positioning possible. All stereo playback models are also equipped with a dummy head to insure correct stereo tracking.

SOLENOID CONTROL CIRCUIT — A key feature of the Spotmaster design is the solenoid control circuit. This is a low-voltage, current regulated source which is applied through a solid-state switch. With this circuit, solenoid operation is not affected by ac line variations, heat dissipation is reduced, and the combination of low voltage and solid-state switching significantly enhances reliability. A further benefit is the elimination of a potential source of noise that is present with high level ac switching.

CARTRIDGE GUIDANCE SYSTEM — The cartridge guidance system provides very precise positioning. The cartridge is directed down into the head by a tapered side guide and locked in place by a beryllium clamp which insures positive locking regardless of variations in cartridge thickness. The tensile strength of this clamp is exceptional and it will retain this strength throughout many years of use. All three cartridge sizes—A, B, and C—may be used in the 3400.

RECORD CIRCUITRY — The record circuitry has balanced inputs followed by high performance IC operational amplifiers. These input circuits have extremely wide dynamic operating ranges which allow them to cleanly handle a greater range of signals than any competitive machine. This high level of signal handling ability, which is inherent throughout the design, contributes significantly to the high quality of reproduction which is characteristic of the 3000 Series.

PLAYBACK CIRCUIT — The playback amplifier consists of wideband IC operational amplifiers, FET muting circuits, and output amplifiers with wide dynamic range. The amplifiers have an exceptionally wide adjustment range for compensating for head wear, a feature which prolongs useful head life. The solid-state output amplifiers will deliver output levels of up to +20 dBm before clipping, thereby minimizing the potential for distortion with high level signals.

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>3400P</td>
<td>906-3400</td>
<td>Mono, Playback only, rack mount</td>
</tr>
<tr>
<td>3400PS</td>
<td>906-3401</td>
<td>Stereo, Playback only, rack mount</td>
</tr>
<tr>
<td>3400RP</td>
<td>906-3402</td>
<td>Mono, Record/Playback, rack mount</td>
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<tr>
<td>3400RPS</td>
<td>906-3403</td>
<td>Stereo, Record/Playback, rack mount</td>
</tr>
<tr>
<td></td>
<td>906-3413</td>
<td>Cover for desk mounting 3400 machine</td>
</tr>
</tbody>
</table>

NOTE: SEE PAGE 7 FOR SERIES 3000 OPTIONS

Identical to the 3000 series specifications on page 7 except:

Dimensions:
5.25" H, 17" W, 15.5" D (13.34 x 43.13 x 39.37 CM)

Weight:
(packed: 42 lbs. (19.0 Kg)
FEATURES

- Talk show or network program delay
- Solid-state logic switching with full remote capability
- Two models available

GENERAL DESCRIPTION

The versatile Broadcast Electronics Delay cartridge machines handle a variety of functions—continuous delay, network delay, normal recording and normal playback—yet with the same top performance specifications as the rest of the Spotmaster 3000 Series cartridge machines.

YOUR CHOICE OF TWO MODELS — Two monaural models are available: the 3200 RP/DL, which handles A and B size NAB cartridges; and the 3300 RP/DL, which accepts A, B and C size carts. The same standard NAB carts used in your other cart machines can be used in the 3200/3300 Delay machines in both the Delay and Normal record/playback modes of operation.

TALK SHOW APPLICATIONS — These Delay machines take the worry out of live telephone talk shows and interviews. When in the Delay mode, the tape crosses the erase/record head where it is erased and the live material recorded. The tape then moves through a full cycle of the cartridge before reaching the playback head.

The time span of the delay is determined by the length of the cartridge. A six second delay, for example, gives ample time to edit words or comments inappropriate for on air broadcast use, thus protecting you from libel suits, FCC actions or unhappy advertisers.

NETWORK PROGRAM DELAY — Another convenient application of BE's Delay machines is automatically recording network programs, up to 30 minutes in length, for playback at a later time.

The network cue tone or automation system timer generates a command for the Delay machine to start. It simultaneously erases any old program material still on the tape and records the network program, recuing itself after one complete cycle. The machine is then ready to automatically play back the newly recorded program material at the proper time.

After the tape has played, the machine is once again ready for the erase/record and playback cycle, without the tape cartridge having ever been removed from the machine. This entire process can be done manually if no automation or timing device is used with the Delay machine.

In the Normal record/play mode, standard cue tones are recorded in the normal manner. However, in the Delay mode, the cue track is neither recorded nor erased, so the original cue tone placed on the cart is not disturbed.

NORMAL RECORD/PLAYBACK OPERATION — The 3200 RP/DL and 3300 RP/DL cart machines incorporate BE's exclusive push-button controlled, solid-state logic switching, with full remote capability. Whenever a cart has been recued after recording a message in the Delay mode, the Delay machine automatically switches to the Normal record/play mode. The machine is then ready for standard recorder/reproducer usage.

Options available for the 3200/3300 Delay machines include a 150Hz cue tone, manual fast forward and automatic fast forward.

See pages 6 and 7 for specifications and ordering information.
REMovable DECKS

Removing a Spotmaster deck couldn't be easier. The front panel is hinged, the decks pull out, and all electrical connections are made through a connector that is a part of the deck.

This photograph shows the top bearing support and aluminum bulkhead which provides the mechanical reference for the motor and the decks.

SPECIFICATIONS

Tape Speed:
7.5 ips (19.05 cm/s.)

Timing Accuracy (at 7.5 ips):
0.1%

Tape Start/Stop Time:
0.1 second maximum.

Wow and Flutter:
0.15% peak weighted. 0.2% RMS unweighted.

Noise (Reproducer):
Monophonic: 62 dB or better below reference of 400 Hz at 3% THD; 54 dB below 160 n Wb/m at 1 kHz.
Stereophonic: 60 dB or better below reference of 400 Hz at 3% THD; 52 dB below 160 n Wb/m at 1 kHz.

Distortion:
2% or less record-to-playback at 160 n Wb/m at 1 kHz.

Equalization:
NAB, IEC, CCIR as specified.

Frequency Response:
-2 dB from 50 Hz to 15 kHz exclusive of head contour effect.

Crosstalk (magnetic head limited):
50 dB.

Audio Output:
Maximum adjustable level +8 dBm from 160 n Wb/m at 1 kHz; 600 ohms (transformer) balanced.

Peak Output Level:
+20 dBm before clipping.

Cartridge Size:
A and B.

Cue Signals:
Relay contact closure for external control (150 Hz, 8 kHz). External cue input/output available at remote control for other control functions.

Ambient Operating Temperature:
0° to 55°C (32° to 132°F).

Power Requirements:
105 to 125 V or 210 to 230 V 60 Hz.
105 to 125 V or 210 to 230 V 50 Hz (optional).

Mounting:
Desk top standard. Adaptors for rack mounting optional.

Dimensions:
10%" H x 8%" W x 13%" D (27 x 22 x 34 cm).

Weight (packed):
43 lbs. (19.5 kg).

ORDERING INFORMATION

RECODER AMPLIFIER
Input Impedance:
Microphone: 150 ohms, (transformer) balanced floating.
Line: 50K ohms (transformer) balanced floating.

Input Levels:
Microphone: -70 to -24 dBm
Line: -24 to -20 dBm (50 mV to 7.7 V)

Power Requirements:
105 to 125 V/210 to 230 V; 50 or 60 Hz

Dimensions:
5%" H x 8%" W x 13%" D (13.3 x 22 x 34 cm)

Weight:
16 lbs. (7.25 kg.)

ACCESSORIES (FOR 5300B SERIES)

SW5E
904-5000  Audio Switcher for 3 Decker
906-5309  Recorder, Mono for 3 Decker, without Q Trip Option
906-5310  Recorder, Stereo for 3 Decker, without Q Trip Option
906-5311A Secondary (150 Hz) and Tertiary (8 kHz) Q Trips for Mono Recorder
906-5311B Secondary (150 Hz) and Tertiary (8 kHz) Q Trips for Stereo Recorder
906-5306  Rack Mount (1) Unit, 3 Decker
906-5307  Rack Mount (2) Units, 3 Decker
906-5308  Additional Cost for 220V/50 Hz Power Source
919-1006  Extender PC Board
927-0047  Remote Control Panel for 5300 A/B Series
927-0048  Remote Control Panel for 5300 A/B Series with Companion Record Amplifier

Model 5300B
FEATURES

- Five Decks In One Space-Saving Package
- Direct Drive Motor
- Low Voltage Solenoid Switching
- Independent Electronics For Each Deck

GENERAL DESCRIPTION

Model 5500 Spotmaster 5-deck machine incorporates the latest Spotmaster design features: solid-state/integrated circuit design, dependable direct-drive hysteresis synchronous motor, solid-state, low-voltage solenoid switching, and the unique Phase Lok III head bracket. It is available for monaural or stereo and for NAB or IEC/CCIR equalization.

MECHANICAL DESIGN — Mechanical and structural innovations include the use of a hinged front panel which folds down to provide complete access to the decks. The top four decks slide out independently for adjustment and routine cleaning. Each deck is a solid piece of machined aluminum designed to insure consistent alignment between the tape cartridge and the PHASE-LOK III head bracket.

The electronic circuits are constructed on printed circuit cards and are accessible from the rear panel of the unit. Front panel controls are connected to this package using modern ribbon cable eliminating bulky multiple wire harnesses.

OPTIONS — A choice of options allows the broadcaster to customize his unit to his specific needs in mono or stereo, with or without cue tones. The cue tone option package includes the 150 Hz and 8 kHz sensors for sequential switching or other cueing assignments in addition to the 1 kHz stop tone provided on each machine.

REMOTE CONTROL/AUDIO SWITCHER — Accessories include a complete remote control duplication of front panel functions and the 904-5001 audio switcher.

RECORDING AMPLIFIER — A companion recording amplifier, (mono Model 5309A or stereo Model 5310A) is available for recording on deck #5 independent of the other four decks.

SPECIFICATIONS

Tape Speed:
7.5 ips (19.05 cm/s).

Timing Accuracy (at 7.5 ips):
0.1%

Tape Start/Stop Time:
0.1 second maximum.

Wow and Flutter:
0.15% peak weighted, 0.2% RMS unweighted.

Noise (Reproducer):
Monophonic: 62 dB or better below reference of 400 Hz at 3% THD; 54 dB below 160 n Wb/m at 1 kHz.
Stereophonic: 60 dB or better below reference of 400 Hz at 3% THD; 52 dB below 160 n Wb/m at 1 kHz.

Distortion:
2% or less record to playback at 160 n Wb/m at 1 kHz.

Equalization:
NAB, IEC, CCIR as specified.

Frequency Response:
+2 dB from 50 Hz to 15 kHz exclusive of head contour effect.

Crosstalk (magnetic head limited):
50 dB.

Audio Output:
Maximum adjustable level +8 dBm from 160 n Wb/m at 1 kHz; 600 ohms (transformer) balanced.

Peak Output Level:
+20 dBm before clipping

Cartridge Size:
Size A.

Cue Signals:
Relay contact closure for external control (150 Hz, 8 kHz). External cue input/output available at remote control for other control functions.

Ambient Operating Temperature:
0° to 55°C (32° to 132°F).

Power Requirements:
105 to 125 V or 210 to 230 V, 60 Hz; 105 to 125 V or 210 to 230 V; 50 Hz (Optional). 120 watts maximum.

Mounting:
Desk top standard. Adaptors for rack mounting optional.

Dimensions:
14¾" H x 5¾" W x 17" D (37.5 x 14.6 x 43.2 cm)

Weight (Packed):
52 lbs. (23.6 kg).

ORDERING INFORMATION

<table>
<thead>
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<th>MODEL</th>
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<th>DESCRIPTION</th>
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<td>5501</td>
<td>906-5501</td>
<td>Mono Playback</td>
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<tr>
<td>5502</td>
<td>906-5502</td>
<td>Mono Playback with cue tones</td>
</tr>
<tr>
<td>5503</td>
<td>906-5503</td>
<td>Stereo Playback</td>
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<tr>
<td>5504</td>
<td>906-5504</td>
<td>Stereo Playback with cue tones</td>
</tr>
<tr>
<td>5508</td>
<td>906-5508</td>
<td>50 Hz Power Conversion</td>
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<tr>
<td>5509A</td>
<td>906-5309A</td>
<td>Recorder, Mono for 5500 Series</td>
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<tr>
<td>5510A</td>
<td>906-5310A</td>
<td>Recorder, Stereo for 5500 Series</td>
</tr>
<tr>
<td>5511</td>
<td>906-5311</td>
<td>Secondary &amp; Tertiary Q Trips</td>
</tr>
</tbody>
</table>
FEATURES
• Compact Design For Playback Of 5 Or 10 "A" And "B" Size Cartridges
• Complete Range Of Accessories: Switcher, Recorder, Remote Control
• Independent Deck Electronics

GENERAL DESCRIPTION
Model 605C (Five-Spot) and 610CR (Ten-Spot) multiple deck cartridge units are used for manual operation or may be incorporated into small programmed automation systems.

Each deck is capable of independent operation and each deck is independently removable. The motor with capstan drive and power supply is common to all decks. Pressure roller force and cartridge indexing adjustments may be made from the front without removing the deck. Outputs are separately adjustable.

Both the Model 605C and 610CR are available with transformer output or with emitter follower output. The 605C can be supplied for desk mounting housed in an attractive formica cabinet, or, for rack mounting. The 610CR is supplied for rack mounting.

CUE TONES — Each deck has one or, optionally, two cue tones as required. A third cue tone can be supplied as an external unit.

SPECSIFICATIONS
Equalization: NAB standard.
Frequency Response: -2 dB, 50 Hz - 12 kHz.
Distortion: 2% or less at normal recording level.
Noise: 45 dB, ref. 185 nW/m.
Wow and Flutter: 0.15% or less, DIN weighted.
Tape Speed: 7.5 ips (3.75 ips available).
Output Level: Adjustable to -4 dBm at 600 ohms, peak output -12 dBm.
Output Load Impedance: 600 ohms (emitter-follower). 600/150 ohms (transformer output).

SPECIFICATIONS

Cueing Tones:
Primary - 1,000 Hz (Stop/Re-Cue). *Cue Trip No. 1: 150 Hz (end of message). *Cue Trip No. 2: 8,000 Hz (auxiliary).

Playing Time:
3 sec. to 16 mins. per deck at 7.5 ips using NAB-type A&B cartridges.

Capacity:
605C: 5 type A or B cartridges; 610: 10 type A or B.

Power Supply:
Transistor, filtered, zener regulated.

Power Requirements:
108 - 125VAC, 60 Hz.; (115V/50 Hz. or 220V/50 Hz optional). 75 watts - 605, 150 watts -610

Dimensions:
605: 9-13/16" W x 14" D x 15¾" H
610: 19" W x 15" D x 15¾" H

Mounting:
605: Walnut Formica Cabinet (Model 605C).
610: In 19" rack panel with cartridge storage cubicle (Model 610C).

Weight:
605: 44 lbs.
610: 89 lbs.

*Optional

See price list for ordering information.

OPTIONAL ACCESSORIES

SW-5B AUDIO SWITCHER — Provides a single transformer balanced output automatically muting non-active channels. Switches any of five audio channels to program line.

MRM-600A RECORDING MODULE — Remove one playback deck, insert MRM-600A for instant conversion to record capability.

BE-106 REMOTE CONTROL — Illuminated Start/Stop switches plus "electronic bookmark" sequence indicator.
FEATURES

- Five Available Models, Including Mono and Stereo Units
- Two Cue Tones Are Standard
- Plug-In Record Module For Mono Units
- Advanced Solid-State Integrated Circuit Design
- Economical Price
- Broad Application
- Excellent Performance And Value

GENERAL DESCRIPTION

ECONOMICAL PRICE — Series 2000 machines are economy priced yet they contain many of the features and performance characteristics of the higher priced Spotmaster designs. Among these features are solid-state control switching, integrated circuit amplifiers, active cue tone filters and a wide selection of models.

AVAILABLE MODELS — These machines are available in mono and stereo, playback and record/playback configurations. All units accept A and B size cartridges and when used in a table-top situation they will also accept the wider C size cartridges.

ADVANCED ELECTRONICS — Series 2000 is an up-to-date design featuring the latest in solid-state/integrated circuit techniques. The electrical performance of these machines is better than competitive designs and compares favorably with our top-of-the-line 3000 and 4000 Series. The audio output is a balanced 600 ohm transformer and the output level is continuously adjustable to +8 dBm with clipping occurring at +16 dBm. Noise and distortion characteristics are very good; better than 54 dB down and 2% respectively. The power supply is fully regulated and protected. FET muting is incorporated in all stereo units.

RECORD AMPLIFIER — The record amplifier has both high and low-level inputs which are selected by jumper changes on the circuit board. Both inputs have exceptionally wide dynamic operating ranges and can accept a wide range of signals without introducing distortion or clipping.

CUE TONES — The 1 kHz and 150 Hz cue tones are standard in all Series 2000 machines. As an option the 150 Hz tone can be 8 kHz.

MECHANICAL CONSTRUCTION — Series 2000 machines use an indirect drive hysteresis synchronous motor, the micro-adjust head bracket with Nortronic heads, a thick steel deck with additional support brackets, automatic pressure roller engagement and mechanical release. These mechanical features are evolutions of Spotmaster designs which have been proven in thousands of machines in use throughout the world. Their reliability and performance are well established.

WORLD WIDE USAGE — Several thousand Series 2000 cartridge machines are in use worldwide. Performance is excellent in monaural or stereo modes and with 60 Hz or 50 Hz power source.
MONOURAL MODELS

SERIES 2000, MONO MODELS

Model 2000P Mono Playback

STEREO MODELS

SERIES 2000, STEREO MODELS

Model 2000PS Stereo Playback

SPECIFICATIONS

Tape Speed:
7.5 ips (19.05 cm/s).

Timing Accuracy (at 7.5 ips):
0.2%

Tape Start/Stop Time:
60 milliseconds maximum.

Wow and Flutter:
0.2% RMS (unweighted), 0.15% peak (unweighted).

Noise (Reproducer):
Monophonic: 62 dB or better below reference of 400 Hz at 3% THD; 54 dB below 160 n Wb/m at 1 kHz.
Stereophonic: 60 dB or better below reference of 400 Hz at 3% THD; 52 dB below 160 n Wb/m at 1 kHz.

Distortion:
2% or less at +16 dBm output.

Equalization:
NAB, IEC, CCIR as specified.

Frequency Response:
±2 dB from 50 to 15 kHz exclusive of head contour effect.

Crosstalk (magnetic head limited):
50 dB.

Audio Output:
Maximum adjustable level +8 dBm from 160 n Wb/m at 1 kHz; 600 ohms (transformer) balanced.

Peak Output Level:
+16 dBm before clipping.

Drive:
Hysteresis synchronous, indirect.

Recorder Input Levels:
Microphone: 70 to +25 dBm
Line: 32 to +18 dBm.

Cue Tones:
1 kHz and 150 Hz are standard.

Remote Control:
24-pin connector, Stop, Start, TELCO telephone answering accessory and 150 Hz cue tone logic ground with 40 ma capability.

Power Requirements:
105 to 125V/210 to 230V, 60 Hz.
105 to 125V/210 to 230V, 50 Hz (optional).

Power Consumption:
45 Watts.

Dimensions:
5½“ H, 8½” W, 12” D (14.3 × 21.6 × 30.5 cm).

Weight (packed):
20 lbs. (9.0 kg).

ORDERING INFORMATION

MODEL | STOCK NO. | DESCRIPTION
--- | --- | ---
2000P | 906-2000 | Series 2000, Monaural Playback, Compact Unit
2000RP | 906-2001 | Series 2000, Monaural Record/Playback Compact Unit complete with Factory Installed Record Module and Head
2000PS | 906-2020 | Series 2000, Stereo Playback, Compact Unit
2000RPS | 906-2021 | Series 2000, Stereo Record/Playback Compact Unit complete with Factory Installed Record Module and Head
FEATURES

- Worldwide Favorite
- Complete Range Of Models At Moderate Prices
- 500 D Features Automatic Record Cancel, Built-In Mike Pre-Amp And Full Auxiliary Cue Tone Options
- Handles A, B or C Cartridges

GENERAL DESCRIPTION

The value and the wide acceptance of the 500 Series is evidenced by the continuing high demand for these machines. Many years after their introduction, they still remain the traditional favorite of many broadcasters. Reasons for their continuing popularity include low initial cost, simplicity of operation, proven reliability, and low ongoing maintenance costs.

500 Series machines feature the Micro-Adjust precision head bracket, modular construction, self-canceling record pre-set, separate record and playback heads and transformer output.

CHOICE OF MODELS — The 500 Series is available in mono playback and record/playback, in desk top or rack mounting units. A record/playback/delay unit is also available. The rack mounting units are self-contained and require no external adapters.

DIAGNOSTIC METERING — All record units have built-in diagnostic metering for monitoring the cue tone and bias levels as well as the record levels.

ALL CARTRIDGE SIZES — These machines accept A, B and C size cartridges. One machine can handle all your cartridge requirements.

RACK MOUNT MODELS — These are self-contained units with their own heavy-duty chassis slides for installation in a standard 19-inch equipment rack.

MICROPHONE PREAMPLIFIER — This is standard in mono record/playback desk top units and is available as an option in all other record units.

500 D/DL Record/Playback/Delay. Records, stores and plays back any program material for pre-determined length on standard cartridges. Also normal record/playback functions.

505 D Monaural Playback. Desk mount unit, plays back A, B and C size cartridges. Companion to the Spotmaster Model 500D Record/Playback
500 DR. Rack Mount 500 D in 7" panel height. Chassis rolls out for access. Optional mike pre-amp.

505 DR. Rack Mount Mono Playback Unit. Accepts A, B, or C size cartridges.

ORDERING INFORMATION

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<th>DESCRIPTION</th>
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<tbody>
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<td>900-0500</td>
<td>Monaural Record/Playback Unit, Compact</td>
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<tr>
<td>500DR</td>
<td>901-0500</td>
<td>Monaural Record/Playback Unit, Rack Mounting with Slides</td>
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<tr>
<td>505D</td>
<td>900-0505</td>
<td>Monaural Playback Unit, Compact</td>
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<td>505DR</td>
<td>901-0505</td>
<td>Monaural Playback, Rack Mounting with Slides</td>
</tr>
<tr>
<td>500D/DL</td>
<td>900-0502</td>
<td>Delay, Record/Playback Unit, Compact</td>
</tr>
</tbody>
</table>

SPECIFICATIONS

Tape Speed: 7.5 ips (19.05 cm/s.)
Timing Accuracy (at 7.5 ips): 0.1%
Tape Start/Stop Time: 0.1 second maximum.
Wow and Flutter: 0.15% peak weighted.
0.2% rms unweighted.
Noise (Reproducer): 52 dB below 160 n Wb/m at 1 kHz.
Distortion: 2% or less record to playback at 160 n Wb/m at 1 kHz.
Equalization: NAB, IEC, CCIR as specified.

Frequency Response:
+2 dB from 50 Hz to 12 kHz exclusive of head contour effect.
Crosstalk (magnetic head limited): 50 dB.
Recorder Input (Line): 0.1 Volt minimum.
Recorder Input (Mike): 0.25 Volts (64 dBm) minimum.
Audio Output: 4 dBm (600 ohm transformer); peak output +14 dBm.
Cue Tones: 1000 Hz standard; 150 Hz optional; 8 kHz optional.

Power Requirements:
105 to 125 VAC, 60 Hz, 50 watts.
115 to 220 VAC, 50 Hz optional.
Motor Drive: Hysteresis synchronous, indirect.
Size (500 and 505 desk-top units): 10¼"W × 12¾"D × 6¾"H
(26 × 32.4 × 16.9 cm).
Size (rack-mount units): 18" W × 16"D × 7"H
(45.7 × 40.6 × 17.8 cm).
Weight (packed):
Model 500: 22 lbs. (9.9 kg)
Model 505: 19 lbs. (8.6 kg)
Model 500 DR: 28 lbs. (13.0 kg)
Model 505 DR: 28 lbs. (13.0 kg)
**TELCO II, III, IV, V and VI Series**

- Provides Automatic Answering And Message Recording
- Models Available For All Spotmaster Machines

**TELCO 80 - (904-0080)** — Record/Play Telephone Answering Interface System for use with Spotmaster Cartridge Machine Series 400/500/605/610

**TELCO 91 - (904-0091)** — Record/Play Telephone Answering Interface System for use With Spotmaster Cartridge Machine Series 3000/4000

Spotmaster Telco 80 or Telco 91 are interface devices installed between cartridge machines and the telephone company coupler to provide automatic answering and message recording. All Spotmaster cart machines may be adapted for use with Telco equipment.

**AUTOMATIC PLAY** — In this position the play machine will automatically answer the call at the end of the first full ringing cycle and give out the prerecorded message to the caller. The phone line is released when message recues.

**MANUAL PLAY** — This is used in conjunction with a telephone handset. The phone can be answered by an operator, the caller can tell operator what message he/she wants to hear. The operator inserts cartridge, pushes manual play and the prerecorded message will play. The operator can stay on line or hang up the phone and be ready for the next call. The phone line is held by the TELCO even if the handset is replaced in the cradle, until the message recues.

**AUTOMATIC RECORD** — In this position the record machine will automatically answer the call at the end of the first full ring and record the incoming message. The machine will continue to record until the caller hangs up. RDL recorder connector is equipped with a silence sensor which will release the phone line after 15 seconds of silence.

**MANUAL RECORD** — This is used in conjunction with the telephone handset. The phone can be answered by an operator. When the caller is ready, the operator can insert cartridge and push manual record and the caller’s message will be recorded. The phone line is held by the TELCO, even if the handset is replaced in the cradle, until the message recues.

**TELCO III, IV, V and VI Series**

**Provides Automatic Response To Incoming Calls**

**Interfaces Between Spotmaster® Cartridge Machine And Bell Recorder Coupler**

The Telco III, IV, V & VI are interface devices which provide automatic answer only capability. All Spotmaster record-playback and playback units can be adapted for Automatic telephone response. Install the Telco between the unit and a standard Bell System RDM Recorder Coupler. Allows pre-recorded messages, advertising, audio reports, etc. to automatically respond to incoming calls. The Telco provides the required signal level and switching interface between the cartridge machine and Bell KS19522-L1 (or L2) recorder coupler. Models are available for automatic or combined manual/automatic operation. See price list for ordering information.

**TC-4 COUNTER** — Registers the number of incoming calls to the Spotmaster unit. Counter installs under tape deck lid.

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**SPECIFICATIONS**

**Dimensions:**
- 10 1/8" wide × 2 3/4" high × 8 1/8" deep.

**Weight:**
- 8 lbs. (3.6 kg)

**Connecting Cable:** Provided with 15 feet of cabling and mating connector for W. E. RDM/RDL Connector. Also provided with 15 feet of cabling and connectors for two Spotmaster cartridge units.

**Power:**
- Required voltage supplied from associated cartridge machine.

**Play Audio Monitor:**
- Allows normal use of cartridge machine without disconnecting the TELCO 80/91.

See price list for ordering information.
 AUDIO SWITCHERS

Audio switches are used with multiple cart machines or multiple deck machines to provide a single balanced output. The switch selects the last deck started and mutes the other decks. If a wrong deck is started, pressing another start button will immediately mute the first deck and put the newly started deck on the output. The first deck started will continue to run, and will re-cue itself.

ORDERING INFORMATION

<table>
<thead>
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<th>DESCRIPTION</th>
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<td>SW5B</td>
<td>904-0005</td>
<td>605/610 Audio Switcher switches any of five audio channels to program line (two required for 610)</td>
</tr>
<tr>
<td>SWSC</td>
<td>904-0012</td>
<td>500 Series Audio Switcher for up to five units</td>
</tr>
<tr>
<td>SW5D</td>
<td>904-0009</td>
<td>2000 Series Audio Switcher for up to five units</td>
</tr>
<tr>
<td>SW5E</td>
<td>904-5000</td>
<td>5300A/B Audio Switcher for three decks. Switchers can be tied together to provide a single balanced output from up to three 5300 A/B machines.</td>
</tr>
<tr>
<td>SW5F</td>
<td>904-5001</td>
<td>5500 Audio Switcher for five decks.</td>
</tr>
</tbody>
</table>

REMOTE CONTROL UNITS

Units are available for remote control of practically all Spotmaster cartridge machines.

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE-102</td>
<td>904-0102</td>
<td>500 Series, Remote Control, 3 start/stop functions w/15 ft. cable.</td>
</tr>
<tr>
<td>BE-106</td>
<td>904-0106</td>
<td>605 Remote Control, 5 start/stop functions and sequencing indicator, illuminated buttons w/15 ft. cable.</td>
</tr>
<tr>
<td>3000</td>
<td>906-3016</td>
<td>3000 Remote Control Panel, START for 5 Units</td>
</tr>
<tr>
<td>3000</td>
<td>906-3019</td>
<td>3000 Remote Control Panel, Single Record/Playback Model</td>
</tr>
<tr>
<td>3000</td>
<td>906-3020</td>
<td>3000 Remote Control Panel, Single Playback (with cue tones)</td>
</tr>
<tr>
<td>3000</td>
<td>906-3021</td>
<td>3000 Remote Control Panel, Single Playback (without cue tones)</td>
</tr>
<tr>
<td>3000</td>
<td>906-3028</td>
<td>3000 Remote Control Panel, START/STOP and FAST FORWARD for 5 Units</td>
</tr>
<tr>
<td>4000</td>
<td>906-4015</td>
<td>4000 Remote Control Panel, START for 5 Units</td>
</tr>
<tr>
<td>4000</td>
<td>906-4016</td>
<td>4000 Remote Control Panel, Single Record/Playback Model</td>
</tr>
<tr>
<td>5300</td>
<td>927-0047</td>
<td>5300 A/B Series Remote Control Panel</td>
</tr>
<tr>
<td>5300</td>
<td>927-0048</td>
<td>Remote Control Panel for 5300 A/B Series with companion record amplifier</td>
</tr>
</tbody>
</table>
TW-100 TAPE CARTRIDGE WINDER — The SPOTMASTER Tape Cartridge Winder is a rugged, dependable and field tested tape cartridge winder which fills a need in every station using cartridge equipment. It is no longer necessary to limit your cartridge operation by using only stock sizes or to tie up your conventional tape equipment to load tape cartridges. The SPOTMASTER Winder will handle all reel sizes and runs at 22\(\frac{1}{2}\)" per second. Worn tape in old cartridges is easily replaced. New or old cartridges may be wound to any length. Tape Timer installed, optional. Model TW-200 includes timer.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Size:</th>
<th>Drive Motor:</th>
</tr>
</thead>
<tbody>
<tr>
<td>10&quot; W x 20&quot; L x 6(\frac{3}{4})&quot; H.</td>
<td>4 pole induction.</td>
</tr>
<tr>
<td>Weight:</td>
<td>Take Up Reel:</td>
</tr>
<tr>
<td>9(\frac{1}{2}) lbs.</td>
<td>Up to 7(\frac{1}{4})&quot; dia.</td>
</tr>
<tr>
<td>Power Requirements:</td>
<td>Capacity:</td>
</tr>
<tr>
<td>117 V ac, 50/60 Hz, 30 watts.</td>
<td>Handles supply reel up to 3600'</td>
</tr>
<tr>
<td>Winding Speed:</td>
<td></td>
</tr>
<tr>
<td>22(\frac{1}{2})&quot; IPS.</td>
<td></td>
</tr>
</tbody>
</table>

TI-50 TAPE TIMER — Precise tape or speed measuring device with scale calibrated in minutes and seconds at 7.5 and 3.75 ips. Features time reset knob and strobe disc for speed checks. Use with reel-to-reel decks, cart machines and tape winder.

TAPE ERASERS MODEL 200-3T AND MODEL TD1A — Handy bulk erasers essential for cartridge users to assure clean, noiseless tape. Model 200-3T handheld, easy to use with 6-foot cord and pushbutton thumb switch. Model TD1A heavy-duty table top unit for cartridges, and equipped with spindle for reels up to 10.5 inches diameter, 1 inch wide. Both available in 117 or 230 VAC.

HEAD DEMAGNETIZER R-25015 — Indispensable for proper head maintenance to insure maximum frequency response, low tape noise...Special finished pole piece will not damage head surface...High impact molded epoxy case...117 VAC-50/60 Hz.

LUBRICATED TAPE — World-renowned Scotch Recording Tape specifically recommended by Spotmaster for tape cartridge use...A heavy-duty tape featuring a special lubricated surface for cleaner, longer tape life...1800 feet/7-inch reel or 3600 feet/NAB Hub. Also available is the Formula-17 tape from Capital Magnetics.

FIDELIPAC CARTRIDGES — Series 300 ("A" size), 600 ("B" size), 1200 ("C" size) available empty or in assorted pre-loaded sizes. Custom winding provided. Complete stock of cartridge replacement parts.

Series 350 Cartridges are for use in stereo machines with inadequate tape guidance. The cartridge is adjustable for added precision.

The Master Cart series is for those broadcasters who seek maximum stereo performance.

Hot Tape (High Output Transfer Tape) is available in all Fidelpac cartridges listed above. See price list for complete listing of models, times, etc.
SPLICE DETECTOR SF-101-B — The SF-101-B utilizes the latest in opto-electronics to detect a splice in a tape cartridge. An audible tone alerts the operator when the splice is found (tone on/off switch is provided). Upon detection it stops the cartridge reel rotation immediately to position the splice beyond the recording point on the tape. Sensitivity may be adjusted to detect tape kinks, flaws, etc.

SPECIFICATIONS

Cartridge Size: A
Speed of Operation: 25 to 30 ips
*Power Requirements: 115V, 60 Hz, 85 watts
Weight (packed): 10 lbs.
Dimensions: 7" W × 5" H × 9½" D
*Supplied with step-down transformer for 220V, 50/60 Hz operation.

MODEL A-2 AND AA-3 AUDIOPAK BROADCAST TAPE CARTRIDGES — Designed to meet all NAB specifications for the type "A" continuous loop tape cartridge. Audiopak Model A-2 offers quality, reliability, and consistently high performance. Available empty or loaded with Formula 17 lubricated tape from 20 seconds to 10.5 minutes playtime.

The Audiopak AA-3 stereo phase cartridges meet or exceed NAB specifications and have a superior dynamic range due to a new high output/low noise tape formulation. Available in "A" size from 10 seconds to 10.5 minutes playtime.

TAPE TAGS — Handy self-adhesive labels especially die-cut and color-coded for cartridge cataloging... and are easy to remove...Room for three typewritten lines...Sheets of 8 tags each...Eight distinctive colors.

TAPE SPlicer — Model R26038 is ideal for cartridge splicing...Two-position cutting assembly cuts tape on 45° bias then shifts for "Gibson-Girl" trim...Comes complete with tape...Extra splicing tape, too, in two convenient sizes.

BE-903 CLEANING FLUID — Our exclusive special blend was developed to meet stringent broadcaster requirements...Quickly dissolves accumulated tape oxides...Will not harm heads or rubber parts...Safe to use...16 and 32 oz. cans.

TEST TAPES — Several types of test tapes are available including those made by Fidelipac, Standard Test Lab (STL) and Magnetic Radio Lab (MRL). Refer to price list for make and model.

See Price List for Ordering Information for all Tape Cartridge Accessories.
Cartridge Storage Racks

WIRE UNITS

LS-200 LAZY SUSAN — Holds 200 cartridges on rotating stand. Ideal for large storage situations requiring mobility. Equipped with 4 heavy-duty casters and constructed of heavy steel rod finished bright zinc. Each individual RS-25 section is removable. 51¼" high, 20½" diameter.

MODULAR UNITS

DESK MOUNT MODULES — Rotating racks present four-sided storage in attractive Walnut Formica. DM-72 holds 72 cartridges, measures only 22" H x 11" W x 11" D. DM-200 provides 200 storage slots. 29½" H x 15¾" W x 15¾" D.

DM-40 WALNUT WOODGRAIN FINISHED CABINET — Lazy Susan designed for tabletop operation; holds 40 "A" cartridges. 9½" W x 8" D x 11½" H. Weight 6½ lbs.

DM-20 WALNUT WOODGRAIN FINISHED CABINET — Holds 20 "A" size cartridges. Units may be stacked; 9½" W x 4" D x 10¾" H. Weight 3½ lbs.

RM-100 WALL MOUNT RACK — Holds 100 "A" size cartridges in minimum space. Walnut Formica trim. 2' H x 2' W x 4¾" D.

RM-20 is designed for standard 19" rack installation. Put vacant rack space to good use. Holds 20 "A" size cartridges in only 5¼" vertical space. Made of aluminum.
FEATURES

- Elegant Styling
- Plug-In Amplifiers
- .05% IM and THD Distortion
- ± .5 dB, 30 Hz - 20 kHz Response
- High Or Low Level Input
- 8 Watt Monitor Amp
- Durable Front Panel

GENERAL DESCRIPTION

CLEAN AUDIO — State of the art technology and newly designed audio circuitry give the new Broadcast Electronics 150 Series consoles unequaled audio performance.

FIVE OR EIGHT MIXER MODELS — The Broadcast Electronics 150 Series dual-channel consoles are available in either five- or eight-input mixer models. They are human engineered for error free production or on air use.

NEW, ELEGANT, DURABLE STYLING — A totally new styling adds durability and enhances the attractiveness of the 150-series consoles. The front panel features crisp, clean graphics under a laminated polycarbonate overlay. This tough protective surface makes it virtually impossible to scratch or wear the lettering away. The front panel should look as clean and fresh after years of normal usage as it did the day it was purchased!

SELECTABLE MICROPHONE/LINE LEVEL INPUTS — Identical plug-in preamplifier modules are used in each mixing channel. These modules can be preset to operate either as low-impedance microphone preamplifiers or to accommodate high-level sources. This feature affords complete flexibility in mixing assignments to meet existing operating requirements or to readily adapt to future changes.

TWO INPUTS PER MIXER — Interlocked, pushbutton selection of two sources per mixer is provided.

FET BUS SELECTION — The preamplifier module circuitry includes modern FET output bus selection, permitting silent channel bus assignment of the mixer preamp output. Dry-contact mechanical switching of low-level audio bus signals is eliminated.

SPEAKER MUTING — The 150 Series consoles are supplied with one speaker muting/warning light relay, with a second as an option. The consoles are prewired for relay operation in conjunction with Mixer #1 and #2. Muting assignment is easily field-modified for other mixer assignments or extensions.

DUAL OUTPUT CHANNELS AND VU METERING — The output channels are identical in performance. Each plug-in line amplifier module delivers 600 ohm, transformer-isolated, balanced output at a -8 dBm level. Illuminated 3½" VU meters afford continuous visual monitoring of the individual channel outputs. Contact fingers on all plug-in modules are gold-plated.

COMPLETE SYSTEM MONITORING — Monitoring at levels up to 8 watts, rms, affords an aural check of the program or audition channels.

Headphone monitoring of program, audition or cue buses, selectable by pushbutton operation, is standard. A front panel jack and headphone gain control permit monitoring up to a 1.0 watt level with 8 ohm headphones.

Each input source may be previewed through the internal cue amplifier/speaker fed from detented cue switch closures actuated at the extreme CCW mixer knob position.
GENERAL DESCRIPTION, (Cont.)

NEAT-APPEARING SIMPLE INSTALLATION — All external wiring is made to clearly labeled screw-type barrier strips, eliminating unattractive exposed cables. Cable access is through openings in the base of the console housing. These features insure simple, neat-appearing installation.

HIGHLY RELIABLE, FUNCTIONAL OPERATION — The 150 Series consoles provide reliable, long-term operation, plus attention to human engineering factors for ease of operation and maintenance. They are further enhanced by elegant, yet functional modern styling, and insure the 150 Series console user of a highly-professional, yet economically-practical audio console.
5 & 8 Mixer, Dual Channel, Mono

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>5M150</td>
<td>938-0531</td>
<td>5-Mixer Monophonic Console, sealed Pots, Dual Channel</td>
</tr>
<tr>
<td>8M150</td>
<td>938-0831</td>
<td>8-Mixer Monophonic Console, sealed Pots, Dual Channel</td>
</tr>
<tr>
<td></td>
<td>838-0200</td>
<td>Additional Cost for 230 VAC/50 Hz Power Source</td>
</tr>
<tr>
<td></td>
<td>270-0007</td>
<td>Second Muting Relay For 5M150 and 8M150</td>
</tr>
</tbody>
</table>

SPECIFICATIONS

PROGRAM AND AUDITION CHANNELS

Inputs:
5M150: 10 into 5 mixers
8M150: 16 into 8 mixers

Input Impedances (Selectable)/Levels:
Low Mode: 150 ohms, -65 dBm min. -38 dBm max.
High Mode: 54 K ohms, bal., bridging; -20 dBm min. +20 dBm max.

Frequency Response:
+0.5 dB, 30 Hz to 20 kHz

Distortion:
0.05% or less IM & THD at +18 dBm output, 30 Hz to 20 kHz

Signal-to-Noise Ratio:
70 dB below +18 dBm output with -50 dBm into any low level input, 20 kHz Bandwidth.

Output Impedance/Level:
600 ohms balanced, +6 dBm for zero-VU meter reading; +18 dBm max.

Overall Gain:
105 dB

MONITOR CHANNEL

Inputs:
Program/Audition/External. Pushbutton selectable.

Frequency Response:
+0.75 dB, 50 Hz to 20 kHz.

Distortion:
0.75% or less, 30 Hz to 20 kHz, @ rated rms output and load.

Output Power/Impedance:
8 watts rms into 8 ohm load.

CUE AND HEADPHONE AMPLIFIERS:
1.0 watt rms. Internal cue speaker. Front panel headphone jack and pushbutton program/audition/cue bus selection.

MUTING:
One muting relay standard. Second relay optional. Standard relay mutes monitor and cue speakers when Mixer 1 activated. Includes terminated contact closure (1A, 125Vac) for warning light operation.

POWER REQUIREMENTS:
115Vac, 50/60 Hz (230Vac, 50/60 Hz optional) 50 watt max.

DIMENSIONS:
5M150: 29" W, 15.75" D, 8.25" H (73.7 × 40 × 20.9 cm).
8M150: 33" W, 15.75" D, 8.25" H (83.8 × 40 × 20.9 cm).

WEIGHT (packed):
5M150: 49 lbs. (22.3 kg.)
8M150: 55 lbs. (25 kg.)
FEATUERES

- Elegant Styling
- Modular, Plug-In Electronics
- Preset High/Low Input Sensitivity
- Cue Switches, All Mixers
- Mono Mixdown And Dual Channel Options
- .05% IM And THD Distortion
- ±0.5 dB, 30 Hz - 20 kHz Response
- Durable Front Panel

GENERAL DESCRIPTION

CLEAN AUDIO — State of the art technology and newly designed audio circuitry give the new Broadcast Electronics 150 Series Consoles unequaled audio performance.

FIVE- AND EIGHT-MIXER MODELS — The Broadcast Electronics 150 Series Stereo Consoles are available in 5-mixer and 8-mixer configurations. Two inputs per mixer, at either microphone or line input levels, are pushbutton selectable. They are human engineered for error free production or on air use.

NEW ELEGANT, DURABLE STYLING — A totally new styling adds durability and enhances the attractiveness of the 150-series consoles. The front panel features crisp, clean graphics under a laminated polycarbonate overlay. This tough protective surface makes it virtually impossible to scratch or wear the lettering away. The front panel should look as clean and fresh after years of normal usage as it did the day it was purchased!

PROGRAMMABLE MONO/STEREO, HIGH/LOW LEVEL INPUTS — Identical modules are used in each stereo mixer input channel. Modules may be preset for mono/stereo and (or) high/low level to permit the user to gear individual mixing channel operation functions precisely to his programming requirements.

+18 dBm LEFT AND RIGHT CHANNEL OUTPUT CAPABILITY — Left and right channel plug-in line amplifier modules deliver +18 dBm balanced stereo outputs, visually-monitored on dual 3½” illuminated VU meters. Adequate “headroom” is assured by the +18 dBm output capability of the line amplifiers.

CONTACT-FREE FET BUS SELECTION — Electronic bus switching, using gated FET techniques, insures fast and silent operation. Switching is effected by simple, remote application of dc control voltages to the FET circuitry, eliminating mechanical contact closures from low-level audio bus paths.

STEREO MONITOR/HEADPHONE AND SUMMED L + R CUE AMPLIFIERS — Stereo monitoring of program and audition channels, or an external source, is pushbutton selected and fed to stereo monitor amplifiers. Stereo headphone amplifier outputs, with pushbutton input selection of program, audition and cue busses, appear on a front panel jack. Through a summed L+R cue bus signal any input may be previewed through the built-in cue amplifier speaker system.

LONG-LIFE, LOW-NOISE MIXING CONTROLS — Dual potentiometers of sealed, high-reliability, long-life design are used for mixing controls. Dual cue switches, actuated in a detented CCW control position, produce a summed L&R cue bus signal source.
GENERAL DESCRIPTION (Cont.)

SIMPLE MUTING LOGIC — Muting of monitor and cue speakers is by transistor-switched relay operation, initiated by the Mixer #1 channel-select key switch. The consoles are prewired for a second optional relay. The relays include terminated contact closures for operation of external warning lights.

CLEAN, STRAIGHTFORWARD INSTALLATION — External connections are made to labeled screw-type barrier strips located in the cabinet bottom with adjacent cable access openings. This permits an installation completely free from unattractive exposed cables.

MONO MIXDOWN/LINE LEVEL AUDITION OPTIONS — The consoles are prewired to accept optional plug-in modules for line-level monaural or stereo audition outputs where either of these additional operating functions are required. An optional mono program output is also available for simultaneous mono/stereo broadcasting.

SUPERB STEREO SYSTEM — The 150 Series Stereo Consoles satisfy the demand for reasonably-priced, professional control equipment, tailored to meet the widely varying requirements of today's stereo broadcaster.
ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
</tr>
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<tbody>
<tr>
<td>55S150</td>
<td>938-0530</td>
<td>5-Mixer Stereophonic Console, sealed Pots</td>
</tr>
<tr>
<td>8S150</td>
<td>938-0830</td>
<td>8-Mixer Stereophonic Console, sealed Pots</td>
</tr>
<tr>
<td></td>
<td>838-0200</td>
<td>Additional Cost for 230 VAC/50 Hz Power Source</td>
</tr>
<tr>
<td></td>
<td>918-3602</td>
<td>Mono Matrix Card for 5S150 and 8S150</td>
</tr>
<tr>
<td></td>
<td>918-3604</td>
<td>Line Amplifier for Stereo Audition Channel 5S150 and 8S150 (2 Required)</td>
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<tr>
<td></td>
<td>270-0007</td>
<td>Second Muting Relay for 5S150 and 8S150</td>
</tr>
</tbody>
</table>

SPECIFICATIONS

PROGRAM AND AUDITION (OPTIONAL) CHANNELS

Stereo Inputs:
55S150: 10 into 5 mixers
8S150: 16 into 8 mixers

Input Impedances/Levels (Selectable):
Low Mode: 150 ohms balanced, -65 dBm min. -38 dBm max.
High Mode: 54K ohms balanced, bridging, -20 dBm min. +20 dBm, max.

Frequency Response:
+0.5 dB, 30 Hz - 20 kHz.

Distortion:
0.05% or less IM & THD at +18 dBm output, 30 Hz - 20 kHz.

Signal-to-Noise:
Noise (unweighted), 70 dB below +18 dBm output with -50 dBm signal into any low-level input. 20 kHz Bandwidth.

Output Impedance/Level:
600 ohms balanced. +8 dBm for zero-VU meter reading. +8 dBm output capability.

Overall Gain:
105 dB.

Monaural Output (Optional)
Same performance specifications as program/audition output channels. Mix ratio adjustable, -6 dB.

STEREO MONITOR CHANNELS

Stereo Inputs:
Pushbutton selectable, program/audition/external.

Frequency Response:
+0.75 dB, 50 Hz - 20 kHz.

Distortion:
0.75% or less, 30 Hz - 20 kHz at 1.5 watts rms into 8 ohm loads.

Output Power/Impedance:
1.5 watts rms per channel into 8 ohm loads.

STEREO HEADPHONE AMPLIFIERS:
1.0 watts rms per channel into front panel phone jack. Program, audition and cue pushbutton input select.

CUE AMPLIFIER:
1.0 watts rms into built-in 8 ohm speaker. Input is summed L-R signal.

MUTING:
One muting relay standard. Mutes monitor and cue speakers when Mixer No. 1 activated. Prewired for second optional relay. Relays have terminated contact closures (1A at 125 Vac) for warning light operation.

POWER REQUIREMENTS:
115 Vac, 50/60 Hz (230 Vac, 50/60 Hz optional) 85 watts max.

DIMENSIONS:
55S150: 29" W. 15.75" D. 8.25" H (73.7 \ 40 \ 20.9 cm)
8S150: 33" W. 15.75" D. 8.25" H (83.8 \ 40 \ 20.9 cm)

Weight (packed):
55S150: 54 lbs. (24.5 kg).
8S150: 55 lbs. (25 kg).
FEATURES

- Elegant Styling
- Step Type Ladder Attenuators
- Telephone Type Channel Key Switches
- Modular, Plug-In Electronics
- Cue Switches, All Mixers
- High/Low Level Input Selection
- Durable Front Panel

GENERAL DESCRIPTION

FLEXIBILITY — Complete flexibility in mixing channel function is a unique feature of the Broadcast Electronics 250 Series, five- and eight-channel monaural consoles. All plug-in input preamplifier modules are identical. They may be preset to accept either balanced, high-level sources or balanced, low-level microphones. Mixing channel assignments may be geared precisely to individual programming requirements with pushbutton preselection of two inputs per mixer.

NEW ATTRACTIVE, DURABLE STYLING — A totally new styling adds durability and enhances the attractiveness of the 250-series consoles. The front panel features crisp, clean graphics under a laminated polycarbonate overlay. This tough protective surface makes it virtually impossible to scratch or wear the lettering away. The front panel should look as clean and fresh after years of normal usage as it did the day it was purchased!

LADDERS ATTENUATORS AND TELEPHONE TYPE SWITCHES — Mixing step-type ladder attenuators, quiet, telephone-type bus select key switches, and contact-free, FET bus selection contribute to the consoles' high-grade performance.

DUAL CHANNEL DESIGN — A 600 ohm balanced audition channel is equal in performance to the program channel.

HUMAN ENGINEERED — The uncluttered control panel arrangement affords convenient, error-free operation. Input pushbutton switches are logically grouped for mixer input preselection; program, audition or external source inputs to the monitor amplifier; and program, audition and cue bus inputs to the headphone amplifier. Masters, plus monitor, headphone and cue gain controls are panel mounted. Illuminated, 3½" VU meters continuously display both program and audition channel output levels.

PLUG-IN ELECTRONICS — All active circuitry, other than the power supply/relay assembly, is on plug-in modules with gold-plated contact fingers to insure long-term socket mating reliability.

FOUR EXTRA INPUTS ON 8-MIXER MODEL — The model 8M250 has four extra unwired switches to aid the broadcaster with any future expansion plans.
GENERAL DESCRIPTION (Cont.)

NEAT AND SIMPLE INSTALLATION — Completely free from exposed wiring, incoming cables are connected to internal, labeled, screw-type barrier strips with cable access through the base of the cabinet. An outstandingly neat installation results.

FULL MONITORING — An 8-watt monitor amplifier and individual 1-watt headphone and cue amplifiers afford complete operational and preview monitoring capability. Three muting relays equipped with terminated warning light contacts (1A @ 125 Vac) are controlled by channel activation of the first three mixer channel select keys. Muting logic is straightforward and readily field modified for alternative or expanded muting assignments.

FET BUS SELECTION — Output channel bus selection is controlled electronically by remote FET dc switching, eliminating mechanical contact closures from the low-level audio bus switching system.

SUPERB PERFORMANCE — Guaranteed electrical specifications and logically-positioned operating controls, complemented by attractive modern styling, make the Broadcast Electronics 250 Series Consoles the clear choice to satisfy the most demanding operating requirements.

BLOCK DIAGRAM
DELUXE 5 AND 8 MIXER, DUAL CHANNEL, MONO

MODEL 8M250 Inside view, shows the same close attention to detail as the "human-engineered" front panel. Installation, service and maintenance are a pleasure.

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5M250</td>
<td>938-0541</td>
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<tr>
<td>8M250</td>
<td>938-0841</td>
</tr>
<tr>
<td></td>
<td>838-0200</td>
</tr>
</tbody>
</table>

SPECIFICATIONS

PROGRAM AND AUDITION CHANNELS

**Inputs:**
5M250: 10 into 5 mixers
8M250: 16 into 8 mixers (8-mixer model has 4 extra unwired inputs)

**Input Impedances/Low Modes (Selectable):**
Low Mode: 150 ohms, balanced. -65 dBm min., -36 dBm max.
High Mode: 54K ohms balanced bridging. -20 dBm min., +20 dBm, max.

**Frequency Response:**
+0.3 dB, 30 Hz - 20 kHz.

**Distortion:**
0.05% or less IM & THD at +18 dBm output, 30 Hz - 20 kHz.

**Signal-to-Noise:**
Noise (unweighted), 70 dB below +18 dBm output with -50 dBm signal into any low-level input. 20 kHz bandwidth.

**Output Impedance/Level:**
600 ohms balanced. +8 dBm for zero-VU meter reading, +18 dBm output capability.

Overall Gain: 105 dB.

**MONITOR CHANNEL**

**Inputs:**
Pushbutton Selectable; Program/Audition/External.

**Frequency Response:**
+0.75 dB, 50 Hz - 20 kHz.

**Distortion:**
0.75% or less, 30 Hz - 20 kHz at 8 watts rms into 8 ohm load.

**Output Power/Impedance:**
8 watts rms into 8 ohms load.

**CUE AND HEADPHONE AMPLIFIERS:**
1.0 watt rms into 8 ohms loads. Internal cue speaker. Front panel headphone jack and program/audition/cue pushbutton selection.

**VU Meters:**
2 Meters; Audition & Program.

MUTING:
Three relays provided. Prewired for monitor/cue muting through Mixer No. 1. Relays No. 2 and No. 3 controlled by Mixers No. 2 and No. 3 respectively. Other combinations by simple field strapping. Relays have terminated 1A, 125 Vac warning light contacts.

**POWER REQUIREMENTS:**
115 Vac, 50/60 Hz (230 Vac, 50/60 Hz optional). 70 watts maximum.

**DIMENSIONS:**
5M250: 29" W, 15.75" D, 8.25" H (73.7 x 40 x 20.9 cm)
8M250: 33" W, 15.75" D, 8.25" H (83.8 x 40 x 20.9 cm)

**Weight (packed):**
5M250: 55 lbs. (25 kg)
8M250: 60 lbs. (27.3 kg)

SPECAIATIONs
GENERAL DESCRIPTION

THE COMPLETE STEREO CONSOLE — The Broadcast Electronics 250 Series Dual Stereo Consoles, available with either five or eight input mixing channels feature identical line-level output stereo program and audition channels, with VU meter switching to either stereo channel pair. Mixing controls are maintainable, step-type dual ladder attenuators. Quiet-operating, telephone-type channel select switches are used.

NEW ELEGANT, DURABLE STYLING — A totally new styling adds durability and enhances the attractiveness of the 250-series consoles. The front panel features crisp, clean graphics under a laminated polycarbonate overlay. This tough protective surface makes it virtually impossible to scratch or wear the lettering away. The front panel should look as clean and fresh after years of normal usage as it did the day it was purchased!

MONO-MIX-DOWN OPTION — For applications requiring a summed L + R mono signal in addition to the stereo program outputs, the consoles are prewired to accept an optional plug-in module for this purpose.

INTEGRAL HIGH/LOW LEVEL AND MONO/StereO MODE SELECTION — Identical stereo preamplifier modules are used in all mixing channels. Modules may be pre-programmed for mono or stereo operation; and for either low impedance microphone, or line-level input service. The user can thus assign mixing channel functions to meet current operating requirements and can readily change them to satisfy future combinations, without obsolescence.

DUAL CHANNEL DESIGN — A 600 ohm balanced audition channel is equal in performance to the program channel.

STEREO MONITOR AND HEADPHONE AMPLIFIERS — High-quality control room and studio stereo monitoring of program, audition or an external input is afforded by 8-watt per channel monitor amplifier modules. Terminated in a front panel jack, headphone monitoring at up to a 1-watt level, of stereo program and audition channels, plus a summed L + R cue bus signal, insures full aural access to critical portions of the console system.

PREFADER PREVIEW, ALL INPUTS — A built-in cue amplifier-speaker system is fed from a summed-stereo bus. Bus signals are applied by dual cue switches on each mixer control, actuated in the detented closed-fader position.

FOUR EXTRA INPUTS ON 8-MIXER MODEL — The Model 8S250 has four extra unwired switches to aid the broadcaster with any future expansion plans.
GENERAL DESCRIPTION (Cont.)

NO EXPOSED EXTERNAL CABLING — With labeled, screw-type barrier strips and adjacent cable access openings, the 250-Series Consoles are a pleasure to install. The completed installation is free from exposed incoming wires and cables, with a truly professional appearance.

HUMAN ENGINEERED FOR LONG-TERM SERVICE — Special attention has been focused on control and switch locations to insure minimum error and maximum operating ease. The 250 Series Consoles are the choice of today's discerning stereo broadcaster. They perform...they produce the sound that satisfies the most demanding stereo programming.

ADVANCED, FET, ELECTRONIC BUS SELECTION — Initiated by remote dc voltage, fast-acting, low-noise selection of mixing busses is accomplished by gated-FET, contact-free switching, with no mechanical closures in the relatively low-level audio bus paths.

MUTING — Three muting relays are supplied, each with terminated contact closures for external warning light operation. The relay circuit is wired for individual operation in conjunction with the first three mixers, however the muting logic is simple and accessible for other, or expanded, relay interlock arrangements.

BLOCK DIAGRAM
ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>5S250</td>
<td>938-0540</td>
<td>5-Mixer Deluxe Stereophonic Console, Step Type</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attenuators, supplied with 3 muting relays.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Includes preamp (stereo) for each mixer; 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>line amp, 2 monitor amp, and 1 cue/headphone amp</td>
</tr>
<tr>
<td>8S250</td>
<td>938-0840</td>
<td>8-Mixer Deluxe Stereophonic Console, Step Type</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attenuators, supplied with 3 muting relays.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Includes preamp (stereo) for each mixer; 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>line amp, 2 monitor amp, and 1 cue/headphone amp</td>
</tr>
</tbody>
</table>

CUE AMPLIFIER:
1.0 watts rms into built-in 8 ohm speaker. Input is summed L + R signal.

MUTING:
One muting relay standard. Mutes monitor and cue speakers when Mixer No. 1 activated. Pre-wired for second optional relay. Relays have terminated contact closures (1A at 125 Vac) for warning light operation.

POWER REQUIREMENTS:
115 Vac, 50/60 Hz (230 Vac, 50/60 Hz optional) 85 watts max.

DIMENSIONS:
5S250: 29" W, 15.75" D, 8.25" H (73.7 x 40 x 20.9 cm)
8S250: 33" W, 15.75" D, 8.25" H (83.8 x 40 x 20.9 cm)

Weight (packed):
5S250: 55 lbs. (25 kg)
8S250: 60 lbs. (27.3 kg)

MONO X-CROSSFADER:
105 dB.

35
FEATURES
- Ten Mixing Channels
- Twenty Mono Inputs
- Ladder Step Attenuators
- Modular Plug-In Electronics
- Contact-Free Bus Selection
- Telephone-Type Channel
- Key Switch
- Talk-Back Capability
- Two Line-Level Outputs
- Durable Front Panel

GENERAL DESCRIPTION

NEW TEN MIXER MONO CONSOLE — The Broadcast Electronics 10M250 Mono Console accommodates twenty inputs into ten mixing channels. The console features identical line-level output mono program and audition channels, with VU meter monitoring to both channels. Mixing controls are maintainable, step-type ladder attenuators. Quiet-operating, telephone-type channel select switches are used.

INTEGRAL HIGH/LOW LEVEL MODE SELECTION — Identical mono preamplifier modules are used in all mixing channels. Modules may be pre-programmed for either low impedance microphone, or line-level input service. The user can thus assign mixing channel functions to meet current operating requirements and can readily change them to satisfy future combinations, without obsolescence.

DUAL CHANNEL DESIGN — A 600 ohm balanced audition channel is equal in performance to the program channel.

TALK-BACK CAPABILITY — The 10M250 Console provides a push-button selectable talk-back capability for two studios and one non-muted location such as a station lobby.

MONO MONITOR AND HEADPHONE AMPLIFIERS — High-quality control room and studio mono monitoring of program, audition or an external input is afforded by 8-watt monitor amplifier modules. Headphone monitoring of mono program and audition channels insures full aural access to critical portions of the console system. A front panel jack is provided for monitoring purposes.

PREFADER PREVIEW, ALL INPUTS — A built-in cue amplifier-speaker system is fed from a mono bus. Bus signals are applied by cue switches on each mixer control, actuated in the detented closed-fader position.

NO EXPOSED EXTERNAL CABLING — With labeled, screw-type barrier strips and adjacent cable access opening, the 10M250 Mono Console is a pleasure to install. The completed installation is free from exposed incoming wires and cables, with a truly professional appearance.

ELEGANT, DURABLE STYLING — Elegant styling adds durability and enhances the attractiveness of the 10M250 console. The front panel features crisp, clean graphics under a laminated polycarbonate overlay. This tough protective surface makes it virtually impossible to scratch or wear the lettering away. The front panel should look as clean and fresh after years of normal usage as it did the day it was purchased.

ADVANCED, FET, ELECTRONIC BUS SELECTION — Initiated by remote DC voltage, fast-acting, low-noise selection of mixing busses is accomplished by gated-FET, contact-free switching, with no mechanical closures in the relatively low-level audio bus paths.

MUTING — Three muting relays are supplied, each with terminated contact closures for external warning light operation. The relay circuit is wired for individual operation in conjunction with the first three mixers, however the muting logic is simple and accessible for other, or expanded, relay interlock arrangements.

HUMAN ENGINEERED FOR LONG-TERM SERVICE — Special attention has been focused on control and switch locations to insure minimum error and maximum operating ease. The 10M250 console is the choice of today's discerning broadcaster.
**SPECIFICATIONS**

**PROGRAM AND AUDITION CHANNELS**

**Mono Inputs:**
20 into 10 mixers.

**Input Impedances/Levels (Selectable):**
- Low Mode: 150 ohms balanced, -65 dBm min., -38 dBm max.
- High Mode: 54K ohms balanced, bridging, 20 dBm min., +20 dBm, max.

**Frequency Response:**
- +0.5 dB, 30 Hz - 20 kHz.

**Distortion:**
0.05% or less IM & THD at +18 dBm output, 30 Hz - 20 kHz.

**Signal-to-Noise:**
Noise (unweighted), 70 dB below +18 dBm output with -50 dBm signal into any low-level input, 20 kHz Bandwidth.

**Output Impedance/Level:**
600 ohms balanced. +8 dBm for zero-VU meter reading. +18 dBm output capability.

**Overall Gain:**
105 dB.

**MONO MONITOR CHANNELS**

**Mono Inputs:**
Pushbutton selectable, program/audition/external.

**Frequency Response:**
- +1 dB, 50 Hz - 20 kHz.

**Distortion:**
0.75% or less, 30 Hz - 20 kHz at 8 watts rms into 8 ohm loads.

**Output Power/Impedance:**
8 watts rms per channel into 8 ohm loads.

**Mono Headphone Amplifier:**
1.0 watts rms into front panel phone jack.
Program, audition and cue pushbutton input select.

**VU Meters:**
2 meters: Audition and Program

**Cue Amplifier:**
1.0 watts rms into built-in 8 ohm speaker.

**Muting:**
Three muting relays standard. Mutes monitor and cue speakers when Mixer No. 1, 2 and 3 activated. Relays have terminated contact closures (1A at 125 Vac) for warning light operation.

**Power Requirements:**
115 Vac, 50/60 Hz (230 Vac, 50/60 Hz optional) 85 watts max.

**Dimensions:**
39"W x 15.75"D x 8.25"H (88.9 x 40 x 20.9 cm).

**Weight (Packed):**
69 lbs. (31.3 kg).

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>10M250</td>
<td>938-1041</td>
<td>10 Mixer Deluxe Mono Console, Step Type Attenuators, supplied with 3 muting relays. Includes preamp for each mixer; 2 line amp, 2 monitor amp, and 1 cue/headphone amp</td>
</tr>
<tr>
<td>838-0200</td>
<td>Additional Cost for 230 VAC/50 Hz Power Source</td>
<td></td>
</tr>
</tbody>
</table>
DELUXE 10-MIXER, DUAL CHANNEL, STEREO
Model 10S250

FEATURES
- Ten Mixing Channels
- Twenty Stereo Inputs
- Ladder Step Attenuators
- Modular Plug-In Electronics
- Contact-Free Bus Selection
- Telephone-Type Channel
  Key Switch
- Talk-Back Capability
- Four Line-Level Outputs
- Mono Mix-Down Option
- Durable Front Panel

GENERAL DESCRIPTION

NEW TEN MIXER STEREO CONSOLE — The Broadcast Electronics 10S250 Stereo Console accommodates twenty inputs into ten mixing channels. The console features identical line-level output stereo program and audition channels, with VU meter switching to either stereo channel pair. Mixing controls are maintainable, step-type dual ladder attenuators. Quiet-operating, telephone-type channel select switches are used.

NEW ELEGANT, DURABLE STYLING — A totally new styling adds durability and enhances the attractiveness of the 250-series consoles. The front panel features crisp, clean graphics under a laminated polycarbonate overlay. This tough protective surface makes it virtually impossible to scratch or wear the lettering away. The front panel should look as clean and fresh after years of normal usage as it did the day it was purchased!

MONO-MIX DOWN OPTION — For applications requiring a summed L+R mono signal in addition to the stereo program outputs, the consoles are prewired to accept an optional plug-in module for this purpose.

INTEGRAL HIGH/LOW LEVEL AND MONO/STEREO MODE SELECTION — Identical stereo preamplifier modules are used in all mixing channels. Modules may be pre-programmed for either low impedance microphone, or line-level input service. The user can thus assign mixing channel functions to meet current operating requirements and can readily change them to satisfy future combinations, without obsolescence.

DUAL CHANNEL DESIGN — A 600 ohm balanced audition channel is equal in performance to the program channel.

TALK-BACK CAPABILITY — The 10S250 Console provides a push-button selectable talk-back capability for two studios and one non-muted location such as a station lobby.

STEREO MONITOR AND HEADPHONE AMPLIFIERS — High-quality control room and studio stereo monitoring of program, audition or an external input is afforded by 8-watt per channel monitor amplifier modules. Headphone monitoring of stereo program and audition channels, plus a summed L+R cue bus signal, insures full aural access to critical portions of the console system. A front panel jack in provided for monitoring purposes.

PREFADER PREVIEW, ALL INPUTS — A built-in cue amplifier-speaker system is fed from a summed-stereo bus. Bus signals are applied by dual cue switches on each mixer control, actuated in the detented closed-fader position.

NO EXPOSED EXTERNAL CABLING — With labeled, screw-type barrier strips and adjacent cable access openings, the 250-Series Consoles are a pleasure to install. The completed installation is free from exposed incoming wires and cables, with a truly professional appearance.

HUMAN ENGINEERED FOR LONG-TERM SERVICE — Special attention has been focused on control and switch locations to insure minimum error and maximum operating ease. The 250-Series Consoles are the choice of today's discerning stereo broadcaster. They perform ... they produce the sound that satisfies the most demanding stereo programming.

ADVANCED FET, ELECTRONIC BUS SELECTION — Initiated by remote DC voltage, fast-acting, low-noise selection of mixing busses is accomplished by gated-FET, contact-free switching, with no mechanical closures in the relatively low-level audio bus paths.

MUTING — Three muting relays are supplied, each with terminated contact closures for external warning light operation. The relay circuit is wired for individual operation in conjunction with the first three mixers, however the muting logic is simple and accessible for other, or expanded, relay interlock arrangements.
**SPECIFICATIONS**

**PROGRAM AND AUDITION CHANNELS**

Stereo Inputs:
20 into 10 mixers.

Input Impedances/Levels (Selectable):
Low Mode: 150 ohms balanced, -65 dBm min., -38 dBm max.
High Mode: 54K ohms balanced, bridging, 20 dBm min., -20 dBm, max.

Frequency Response:
- 0.5 dB, 30 Hz - 20 kHz.

Distortion:
0.5% or less IM & THD at +18 dBm output, 30 Hz - 20 kHz.

Signal-to-Noise:
Noise (unweighted), 70 dB below +18 dBm output with -50 dBm signal into any low-level input, 20 kHz Bandwidth.

Output Impedance-Level:
600 ohms balanced, +8 dBm for zero-VU meter reading. +18 dBm output capability.

**STEREO MONITOR CHANNELS**

Stereo Inputs:
Pushbutton selectable, program/audition/external.

Frequency Response:
-0.75 dB, 50 Hz - 20 kHz.

Distortion:
0.75% or less, 30 Hz - 20 kHz at 8 watts rms into 8 ohm loads.

Output Power/Impedance:
8 watts rms per channel into 8 ohm loads.

Stereo Headphone Amplifiers:
1.0 watts rms per channel into front panel phone jack. Program, audition and cue pushbutton input select.

**Overall Gain:**
105 dB.

**Monaural Output (Optional L & R):**
Same performance specifications as program/audition output channels. Mix ratio adjustable. ± 6 dB.

**VU Meters:**
2 meters: L & R switchable to Audition and Program.

**Cue Amplifier:**
1.0 watts rms into built-in 8 ohm speaker. Input is summed L + R signal.

**Muting:**
Three muting relays standard. Mutes monitor and cue speakers when Mixer No. 1, 2 and 3 activated. Relays have terminated contact closures (1A at 125 Vac) for warning light operation.

**Power Requirements:**
115 Vac, 50/60 Hz (230 Vac, 50/60 Hz optional) 85 watts max.

**Dimensions:**
39”W × 15.75”D × 8.25”H (88.9 × 40 × 20.9 cm).

**Weight (Packed):**
69 lbs. (31.3 kg.).

---

**DESCRIPTION**

DELUXE 10-MIXER, DUAL CHANNEL, STEREO

MODEL 10S250

Ordering Information:

<table>
<thead>
<tr>
<th>MODEL</th>
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<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>10S250</td>
<td>938-1040</td>
<td>10 Mix Deluxe Stereophonic Console, Step Type Attenuators, supplied with 3 muting relays. Includes preamp (stereo) for each mixer; 4 line amp, 2 monitor amp, and 1 cue/headphone amp.</td>
</tr>
<tr>
<td></td>
<td>838-0200</td>
<td>Additional Cost for 230 VAC/50 Hz Power Source</td>
</tr>
</tbody>
</table>
GENERAL DESCRIPTION

COMPACT, PROFESSIONAL PERFORMANCE — Incorporating modern solid-state technology, the Broadcast Electronics Model 4M50 4-Mixer Monaural Console affords professional performance at reasonable cost. Compact, yet uncluttered, the 4M50, with two inputs per mixer, can handle the selection and level control/mix of up to eight sources.

MICROPHONE OR LINE LEVEL INPUT SELECTION — Flexibility is a feature. Each mixing channel uses identical input preamplifier circuitry which can be prewired for either low-impedance microphone service or for use with high-level input equipment.

COMPLETE MONITORING AND CUE CAPABILITY — Individual monitor, headphone and cue amplifiers with front panel input and level control insure aural monitoring capability of all critical functions.

RUGGED, LOW-NOISE MIXER CONTROLS — Sealed, high-reliability potentiometers are used for mixing. These are of special design, intended for applications where continual use is required. All mixers are equipped with cue switches.

MONITOR/CUE SPEAKER MUTING — Monitor amplifier output and the built-in cue loudspeaker are automatically muted whenever Mixer #1 is used. Muting assignment to other mixing channels is easily effected by strapping. Terminated relay contacts (1A, 125 Vac) for warning light operation are included.

EASY TO INSTALL, NO EXPOSED CABLE — All incoming cables connect to labelled screw-type barrier strips with adjacent access openings in the bottom of the cabinet. This eliminates exposed wiring.

EFFICIENT, PROFESSIONAL OPERATION — High quality performance and clean functional operation highlight the ideal console for production, on-air, newsroom or remote broadcast purposes — or for educational and industrial applications.
ORDERNING INFORMATION

MODEL  |  STOCK NO.  |  DESCRIPTION
------|-------------|-----------------|
4M50  |  938-0450   |  Mono Four 4-Mixer Monophonic Console
4M50R  |  938-0451   |  Mono Four Rack Mount 4-Mixer Monophonic Console
838-0201 |            |  230 Vac 50/60 Hz Power Conversion

SPECIFICATIONS

PROGRAM CHANNEL

Inputs:
Two per mixer, total: 8
Input Impedances/Levels (Strappable):
Low Mode: 150 ohms balanced, -65 dBm nom., -45 dBm max.
High Mode: 20K ohms balanced bridging, -20 dBm nom., 0 dBm max.
Frequency Response/Distortion:
±2.0 dB/0.5%, 30 Hz - 20 kHz.
Signal-to-Noise:
65 dB (unweighted) below +8 dBm output.
-50 dBm signal to any low-level input.
Overall Gain:
90 dB minimum.

Output Impedance/Level:
600 ohm balanced, +8 dBm for zero-VU meter reading, +16 dBm max.

CUE AMPLIFIER:
1.0 watt rms into built-in 4 ohm speaker.

MUTING:
Assignable by strapping to any channel input combination.

POWER REQUIREMENTS:
115 Vac, 50/60 Hz (230 Vac, 50/60 Hz optional) 40 watts max.

DIMENSIONS:
18" W, 13" D, 7.5" H (45.8 x 33 x 19.1 cm)

SHIPPING WEIGHT:
23 lbs. (10.4 kg).

NOTE: OUTLINED LEGENDS INDICATE FRONT PANEL CONTROLS AND SWITCHES
FEATURES

- High/Low Input Sensitivity Selection
- Cue Switches, All Mixers
- Individual Monitor, Cue, Headphone Amplifiers
- Excellent Performance-Reasonable Cost
- 12 Stereo Inputs; 4 Mixers
- Ideal For Stereo Production, Discotheque Or On Air

GENERAL DESCRIPTION

ACCOMMODATES 12 STEREO INPUT SOURCES — The Broadcast Electronics 4S50 four-mixer stereo console features quality stereo performance at a practical price. This versatile console allows preselection of eight stereo input sources with intermix and level control of four of these simultaneously.

INPUT SELECTION — Two Stereo inputs, either high or low level, can be accommodated by each of the first three channels. Channel four can be preselected to a single high or low level stereo input or to one of five high level remote/utility stereo inputs. Push-button switches are used for channel on/off functions as well as input selection.

DUAL VU METERS AND STEREO MONITORING — Visual monitoring of left and right channel outputs is by 3½" VU meters. Aural monitoring at 3 watt rms level, per channel for operating position and studio loudspeakers, plus stereo headphone .5 watt per channel amplifier outputs, terminated in a front panel jack, insure close surveillance of program quality. In addition to stereo program channel information, an external stereo source and mono cue bus material may be monitored by headphones.

CUE-SWITCHES ON ALL FADERS — The high reliability, low-noise sealed dual potentiometers used for mixer level control are fitted with cue switches so that each source can be previewed through the self-contained cue amplifier speaker system.

MUTING LOGIC — Monitor and cue speakers are relayed through contact closures on the mixer A-B input select key switches. Normally wired for muting in conjunction with Mixer #1 operation, other assignments are readily made in the field by strapping.

IDEAL FOR STEREO PRODUCTION OR ON-AIR USE — The stereo performance characteristics of the 4S50 are excellent and make it an ideal tool in the production of stereo taped material, or where a modest, yet flexible control room/studio operation is involved, totally suited for on-air stereo FM broadcast use.
SPECIFICATIONS

STEREO PROGRAM CHANNELS
Stereo Inputs:
Two per mixing channels 1-3, Ch 4/6. Total 12.

Input Impedances/Levels:
Low Mode: 150 ohms balanced, -65 dBm, nominal, -38 dBm max.
High Mode: 20K ohms balanced bridging, -20 dBm, nom., +20 dBm max.
Above modes preset by internal strapping.

Frequency Response:
+ .5 dB, 30 Hz - 20 kHz.

Distortion:
.1% THD and .15 IM, 30 Hz - 20 kHz at +18 dBm output.

Signal-to-Noise:
70 dB (unweighted) below +18 dBm out with -50 dBm low level input signal, 20 kHz bandwidth.

Output Impedance/Level:
600 ohms balanced, +8 dBm for zero-VU meter readings, +16 dBm max.

STEREO MONITOR AMPLIFIERS

Frequency Response:
+1.0 dB, 30 Hz - 20 kHz.

Distortion:
.3% THD and IM, 30 Hz to 20 kHz at 3.0 watts rms per channel into nominal ohm load.

Output Power/Impedance:
3.0 watts rms per channel into 8 ohm loads.

STEREO HEADPHONE AMPLIFIERS:
.5 watt rms per channel into front panel jack. Program/cue inputs.

MUTING:
As wired, monitor and cue speakers muted by Mixer 1 A-B input select switch. Assignable, by strapping, to any channel input. Muting relay includes 1A, 125 Vac warning light contacts.

POWER REQUIREMENTS:
115 Vac, 60 Hz (230 Vac, 50/60 Hz optional) 50 watts maximum.

DIMENSIONS:
18” W, 13” D, 7.5” H (45.8 x 33 x 19.1 cm).

WEIGHT (PACKED):
24 lbs. (10.8 kg).
FEATURES

- Transformer Balanced Inputs
- Cue Switches, All Mixers
- For Broadcast, A/V, CCTV And CATV
- Switchable Microphone/High Level Inputs
- Integral Tone Generator

GENERAL DESCRIPTION

BROADCAST, A/V, CCTV AND CATV APPLICATIONS — The Broadcast Electronics 4V50 rack-mount, four-mixer "Versa-Console" brings, in a self-contained, compact package, operating versatility usually expected only in larger, desk-top units. The "Versa-Console" is useful for production and semi-permanent broadcast remote.origination. Its multi-input flexibility makes it a valuable tool as the aural complement in audio/visual systems for industrial and educational training purposes or for CATV studio origination.

ACCOMMODATES WIDE CHOICE OF INPUT SOURCES — The first three mixing channels are identical, accepting either low-impedance microphone or high-level inputs through rear panel preset switching. Two inputs may be selected for each mixer by adjacent switch operation. Mixer 4 has additional high-level input capability. It will accept one low-level input or three pushbutton-selected high-level inputs. Thus, a total of ten sources may be selected for up to four simultaneous "mixes."

SEALED MIXER CONTROLS WITH CUE SWITCHING — Mixers are long-life sealed potentiometers, each equipped with cue switches. This permits preview of input sources through the built-in cue amplifier and speaker. The latter is automatically muted whenever input 1A is activated.

1 kHz TONE GENERATOR — An internal tone generator facilitates quick and accurate output level adjustment.

HEADPHONE MONITORING/EXTERNAL AMPLIFIER FEED — Either program output or cue bus information may be monitored through the headphone amplifier with front panel jack output. Program material appears on a rear panel high-impedance output terminal for feeding external PA or monitoring equipment.

DESIGNED FOR SIMPLE INSTALLATION — External wiring connections are made to labelled rear-panel screw-type barrier strips or for program output and ground, to binding posts.

COMPACT, COMPLETE, CONTROL CENTER — Astoundingly versatile for its size, the "Versa-Console" is an outstanding unit where selection and mixing of many inputs of either microphone-level or line-level nature are involved.
### ORDERING INFORMATION

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<thead>
<tr>
<th>MODEL</th>
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</thead>
<tbody>
<tr>
<td>4V50</td>
<td>938-2000</td>
<td>4-Mixer Mono Console, Rack Mount</td>
</tr>
<tr>
<td></td>
<td>838-0201</td>
<td>230 Vac 50/60 Hz Power Conversion</td>
</tr>
</tbody>
</table>

### SPECIFICATIONS

**INPUTS:**
Mixers No. 1, 2 and 3—two per mixer; high or low level.
Mixers No. 4—one, high or low level, plus three pushbutton-selectable high-level inputs. Tone generator—internal level set.

**INPUT IMPEDANCES/LEVELS (SWITCHABLE - REAR PANEL):**
- **Low Level Mode:** 150 ohms bal. 50 dBm nom. -38 dBm max.
- **High Level Mode:** 20K ohms bal. bridging. 10 dBm nom. +10 dBm max.

**OUTPUTS**
Program:
- 600 ohms balanced. +1/8 dBm switchable for zero-VU meter reading. +18 dBm max.
- Cue:
  - 1.0 watt rms to internal speaker. FET muted.
  - Headphone:
    - 1.0 watt rms to front panel jack. Program/cue input select.
  - PA:
    - 10k ohms unbalanced. 0.45V @ +8 dBm program out level. Adjustable. Rear panel phone jack.

**FREQUENCY RESPONSE (PROGRAM & PA OUTPUTS):**
- +1.5 dB, 50 Hz - 20 kHz (Reference: 1 kHz)

**DISTORTION:** (PROGRAM CHANNEL):
- 0.5% THD or less, 30 Hz - 20 kHz, +8 dBm output.

**SIGNAL-TO-NOISE (unweighted):**
- 60 dB below +8 dBm out with -50 dBm signal to any low-level input.

**POWER REQUIREMENTS:**
- 115 Vac, 50/60 Hz, 11 watts max.

**DIMENSIONS:**
- 19" W, 10" D, 3.5" H (48.3 x 25.4 x 8.9 cm). EIA Std 19" rack mg.

**SHIPPING WEIGHT:**
- 14 lbs. (6.4 kg).

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**BLOCK DIAGRAM**

![Diagram](image-url)
10-Mixer, Vertical Fader, Dual Channel Models 10S350 Stereo, 10M350 Mono

**FEATURES**
- 22 Inputs To 10 Slide Faders
- Modular Plug-In Electronics
- Dual Channel Output
- Elegant Styling
- Mono Or Stereo Models
- Contact-Free, FET Bus Selection
- Economical Price
- Durable Front Panel

**GENERAL DESCRIPTION**

**REASONABLY-PRICED, SLIDE-FADER CONSOLE** — To satisfy the increasing demand for multichannel vertical-fader flexibility, Broadcast Electronics offers in standard monaural or stereophonic configurations, at prices competitive with rotary-mixer models, the 10-channel 10M350 mono and 10S350 stereo dual-channel output consoles.

**NEW ATTRACTIVE, DURABLE STYLING** — A totally new styling adds durability and enhances the attractiveness of the 350 series consoles. The front panel features crisp, clean graphics under a laminated polycarbonate overlay. This tough protective surface makes it virtually impossible to scratch or wear the lettering away. The front panel should look as clean and fresh after years of normal usage as it did the day it was purchased!

**COMPLETE INPUT FLEXIBILITY** — Using the widely-accepted universal modular input preamplifier technique pioneered in BE rotary-mixer console models, the new consoles feature integral module presetting to permit individual input channel use for either low impedance microphone or line-level input service. The stereo model also features mono/stereo selection. Mixers #1 through #8 accept two inputs per mixer; and #9 and #10, three each. Input preselection is by interlocked pushbuttons. Mixer outputs, by advanced, contact-free FET switching, may be fed separately or simultaneously to the dual output channels.

**PRE-FADER PREVIEW** — Multichannel consoles involving many inputs generally require presetting of the input channel fader positions. Cue switches operate independently of fader position. A lever switch, in an "operation mode select" function, determines program, cue or off assignments.

**DUAL CHANNEL OUTPUT** — The mono and stereo models feature dual line-level output channels; two for mono, four for stereo; with VU meter switching for level monitoring. Standard +8 dBm output levels, with +18 dBm capability to insure adequate "headroom," produce "zero-VU" meter readings. An additional monaural line-level output is a plug-in module option for the 10S350.

**FULL SYSTEM MONITORING** — 8-watt full-fidelity loudspeaker monitoring of all output channels, plus the convenience of 1-watt level mono or stereo headphone monitoring of the output channels and mono cue bus information assures maintenance of system quality.
Internal view of Model 10S350 shows ready access to terminal boards for installation, and to attenuators, switches, modules and all components for easy maintenance. Note full complement of plug-in amplifiers.

BLOCK DIAGRAM — MODEL 10M350 MONO

(10S350 Stereo: Basic System Essentially Identical, with Individual Left- and Right-Channel Capability)
10-Mixer, Vertical Fader, Dual Channel

GENERAL DESCRIPTION (Cont.)

CUE/INTERCOM SYSTEM — In addition to conventional inbuilt loudspeaker monitoring of cue bus inputs, the integral 1-watt cue amplifier performs a two-way intercom function. With the addition of a small speaker in the studio, control room/studio intercommunication, controlled at the console position, is possible. The loudspeakers act as microphone transducers in the “talk” mode.

MULTICHA N N E L MUT I N G — Speaker muting is normally assigned to Mixers 1 and 2. By diode matrixing this is readily modified or extended to other mixing channels. Contacts for external warning light operation are included on each relay.

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>10M350</td>
<td>938-1051</td>
<td>10-mixer, slide-fader, dual-channel monaural console.</td>
</tr>
<tr>
<td>10S350</td>
<td>938-1050</td>
<td>10-mixer, slide-fader, dual-channel stereo console.</td>
</tr>
<tr>
<td>3502</td>
<td>918-3502</td>
<td>Mono matrix module, 10S350</td>
</tr>
<tr>
<td></td>
<td>838-0200</td>
<td>230Vac Power Conversion</td>
</tr>
</tbody>
</table>

SPECIFICATIONS

PROGRAM CHANNELS
(Mono: 2; Stereo: 4)

Inputs:
Two per mixer, Channels 1-8; Three per mixer, Channels 9 and 10. Total: 22.

Input Impedances/Levels (Switchable):
Low Mode: 150 ohms balanced. – 65 dBm nominal. 38 dBm maximum.
High Mode: 54K ohms Balanced Bridging.
20 dBm nominal. -20 dBm maximum.

Mono/ Stereo Select (10S350)
In-phase stereo outputs from mono source.

Frequency Response:
0.5 dB. 30 Hz - 20 kHz.

Distortion:
0.5% IM & THD, 30 Hz - 20 kHz at +18 dBm output.

Signal-to-Noise (unweighted):
70 dB below +18 dBm output. 50 dBm input, 20 kHz bandwidth.

Output Impedance/Level:
600 ohms balanced +18 dBm for zero-VU meter deflection. +18 dBm capability.

MONOAURAL OUTPUT CHANNEL
(Optional, 10S350)
Same performance specification as program channels.

Inputs:
Pushbutton select. Program output channels and an external source.

Frequency Response:
+0.75 dB, 50 Hz - 20 kHz.

Distortion:
0.75% or less, 30 Hz - 20 kHz at rated output and load.

IDEAL FOR SOPHISTICATED, MULTIMIX APPLICATIONS — Where simultaneous mixing and level control in excess of the two mixers at a time limitation of rotary fader consoles is a necessity, the multichannel mixing capability afforded by the exciting new BE 10-input, vertical-attenuator models at their surprisingly low prices, fill the void. Sophisticated styling in an easy-to-operate, human-engineered package make the standard “350 Series” consoles the obvious choice for complex “on-air,” production, or TV studio use.

Output Power/Load:
8 watts rms per channel, 8 ohm load.

VU Meters:
10M350: 2 meters; Mix 1 & Mix 2
10S350: 2 meters; L & R switchable to mix 1 or 2

HEADPHONE AMPLIFIER
(Mono: one; Stereo: two)
1-watt rms per channel. Pushbutton selection of output channels and cue bus.

CUE/INTERCOM AMPLIFIER
1-watt rms mono output to built-in speaker. Input mono (or summed L-R, 10S350). Front panel intercom talk/listen/cue switching.

MUTING:
Two relays standard. As wired, Relay 1 mutes monitor/cue speakers with Mixer 1 operation; Mixer 2 controls Relay 2. Other combinations, field-assignable. Relays include 1A/125Vac contacts for external warning-light operation.

POWER REQUIREMENTS:
115Vac, 50/60 Hz (230Vac operation, optional). 10M350: 75W; 10S350: 110W.

DIMENSIONS:
36” W, 10.75” H, 19” D (91.4 x 27.3 x 48.2 cm).

WEIGHTS (Packed):
10M350: 80 lbs. (36.4 kg).
10S350: 85 lbs. (38.6 kg).
FEATURES

- Vertical Faders
- Completely-Shielded Input Modules
- Low-Noise Reed Relay Bus Selection
- 12-Input Channel Capability
- Dual-Channel Output, Mono Or Stereo
- Modular Plug-In Electronics
- Transformer Balanced Inputs

GENERAL DESCRIPTION

VERTICAL-FADER, MULTI-MIX FLEXIBILITY — The Broadcast Electronics 4000-Series modular, dual-channel consoles, available in monaural or stereophonic models, afford the discriminating AM, FM or TV broadcaster a quality vertical-fader console at reasonable cost. These consoles fill the need for operating situations where a large number of input sources must be simultaneously mixed and controlled.

THREE MIXING-CHANNEL MODULE TYPES — The consoles accommodate up to 12 input modules of three different functions. The first type houses the components and electronics with provision for pushbutton selection of two sources and output feed to two mix busses. Preset switching establishes channel use for either low-impedance microphone or line-level inputs. The stereo model also includes mono/stereo switching whereby in-phase stereo outputs are produced from a monaural source.

The second type module is essentially identical to the first with the added feature of DIP-switch programmable muting-logic control of up to 16 different combinations of input/mix bus alignments.

The third accommodates three selectable 600Ω balanced remote line or network inputs (two stereo, one mono in the stereo model) with provision for program cue feed or intercom facilities to the remote origination location. The remote feed module is used in conjunction with a standard, unmutted input module and this combination occupies two module spaces.

INDEPENDENT CUE SWITCHING — When a large number of mixing channels are involved it is general practice to predetermine individual channel-fader positions. "End-of-travel" cue switch activation defeats this objective. The 4000-Series consoles feature individual prefader preview switching by utilization of a key-type "operation mode select" switch with program/off/cue indexing.

SEPARATE, OR SIMULTANEOUS MIX-BUS SELECTION — All mix busses are balanced and by color-coded push-button selection, the output of each mixing-channel module may be fed to either of two mix busses, or to both.

VU METERING, ALL OUTPUT CHANNELS — Each program output channel operates at a nominal +8 dBm output level with a minimum of 10 dB headroom reserve. Individual 3½" illuminated VU meters assure continuous visual monitoring of all program channels. The monaural model has two meters; the stereo model, four.

The stereo model is prewired to accept two optional mono mixdown modules where a "summed L+R" line-level, monaural output of Mix 1 and/or Mix 2 is desired for simulcast operation.
GENERAL DESCRIPTION (Cont.)

FULL-FIDELITY MONITORING — Key-switch input selection of the program channels and an external source to the input of an 8-watt rms monitor amplifier (two provided in stereo model) produces excellent reproduction of the programming, appropriately muted at the operating position and in the various studios.

HEADPHONE MONITORING WITH PROGRAM-CUE OVERRIDE — Terminated in a front panel jack, headphone monitoring of either mono or stereo program outputs and mono cue bus information is accomplished at up to a 1-watt rms output level.

Program-cue "override" capability is a unique feature. In the cue mode, panel level controls permit intermix of program and cue signal to satisfy individual operating preferences.

CUE/INTERCOM SYSTEM — In addition to the normal cueing function, the 1-watt rms cue amplifier-speaker system is utilized for two-way intercommunication between the operating position and two studios. Small PM speakers in each studio with simple two-conductor interconnection to the console complete the intercom function. "Talk-listen" control is at the console position.

COMPLETE MUTING-ASSIGNMENT FLEXIBILITY — The consoles include four muting relays. Relay actuation is controlled by a C-mos quad and/or select gate system, programmed by dual 8-position DIP-type switches located in the input mixing module. The switches are labelled so that any combination of A-B inputs or Mix 1-2 outputs may be programmed to actuate a specific relay. Normally-open contacts on each relay are terminated for slave operation of external warning-light relays.

AMAZINGLY-SIMPLE INSTALLATION, FULL ACCESSIBILITY FOR MAINTENANCE — For a console of its system complexity, installation is surprisingly simple. External wiring enters through access openings in the console base. All input connections are made to labelled screw-type barrier strips on each module, easily accessible by raising the hinged top lid. Output connections are to similar-type terminals inside the right hand end of the console.

Individual input mixing modules are easily removed for servicing. Pressure-locked under the front-edge, leather-finish padded arm rest, a simple quarter-turn fastener at the top rear of the module allows its removal from a base-mounted printed circuit board socket. The right hand panel containing the VU meters and secondary operating controls hinges forward. The plug-in modular electronics (line output, monitor, cue and headphone amplifiers) are immediately behind this panel area and may be hinged upward for complete access to all system wiring. The console may be mounted tight to a wall without impairing access to wiring.

FLEXIBILITY, OPERATING EASE, QUALITY PERFORMANCE — The ever-increasing complexity of today's programming with its demands for simultaneous level control of many inputs is rapidly placing greater emphasis on vertical fader designs with their expanded manual control capability. Most consoles of this type are either of custom design at prohibitively high prices or are intended primarily for the recording or film industries. The 4000-Series Consoles have been designed by experienced, broadcast-oriented people — for the AM, FM and TV broadcaster. They perform the multi-functions you need — at prices competitive with many rotary-mixer consoles, with their basic "two-hand, two-mixer" limitation.
12-Mixer, Vertical Fader, Dual Channel

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL</th>
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<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML-4000</td>
<td>938-4000</td>
<td>Monaural dual-channel console chassis with provision for accepting up to 12 input modules.</td>
</tr>
<tr>
<td>SL-4100</td>
<td>938-4100</td>
<td>Stereo dual-channel console chassis with provision for accepting up to 12 input modules.</td>
</tr>
<tr>
<td>4021</td>
<td>980-4021</td>
<td>Mono Input Mixing Module, with muting logic.</td>
</tr>
<tr>
<td>4023</td>
<td>980-4023</td>
<td>Mono Input Mixing Module, less muting logic.</td>
</tr>
<tr>
<td>4025</td>
<td>980-4025</td>
<td>Mono Remote Input Module (feeds mono Input Mixing Module).</td>
</tr>
<tr>
<td>4022</td>
<td>980-4022</td>
<td>Stereo Input Mixing Module, with muting logic.</td>
</tr>
<tr>
<td>4024</td>
<td>980-4024</td>
<td>Stereo Input Mixing Module, less muting logic.</td>
</tr>
<tr>
<td>4026</td>
<td>980-4026</td>
<td>Stereo Remote Input Module (feeds stereo Input Mixing Module).</td>
</tr>
<tr>
<td>3602</td>
<td>918-3602</td>
<td>Mono mix-down module for stereo (4100) units.</td>
</tr>
<tr>
<td></td>
<td>828-0200</td>
<td>230 VAC Power Option (either model).</td>
</tr>
<tr>
<td></td>
<td>980-4008</td>
<td>Module filler panel (for unused module space).</td>
</tr>
</tbody>
</table>

Note: Mono mix-down module—When used, two modules required (one for MIX-1, one for MIX-2). Mix-down module is necessary to use feed function of remote modules in SL-4100 Console.

SPECIFICATIONS

PROGRAM CHANNELS
(Mono: two; Stereo: four)

Input Mixing Channels:
12 module spaces provided. Remote input capability requires two spaces: one for remote feed module; one for associated standard input module. Blank face plates are installed on any open module spaces.

Input Impedances/Levels (Preamp Modules):
- Low Mode: 150 ohms balanced. –70 dBm nominal; –30 dBm maximum.
- High Mode: 36K ohms balanced, bridging. –20 dBm, nom., +20 dBm maximum.

Input Impedances/Levels (Remote Feed Modules):
- 600 ohms balanced. –20 dBm, nom., +20 dBm max.

Mono/Stereo Select (SL-4100):
In-phase stereo outputs from monaural source.

Frequency Response:
-0.75% or less, 30 Hz - 20 kHz at rated output and load.

Distortion:
0.75% or less, 30 Hz - 20 kHz at rated output and load.

Output Power/Load:
8 watts rms per channel, 8 ohm load.

HEADPHONE AMPLIFIER
(Mono: one; Stereo: two)
1 watt rms per channel. Pgm 1/Pgm2/Cue key-switch input selection. Program and cue levels can be intermixed in cue position. Front panel jack.

CUE/INTERCOM AMPLIFIER:
1-watt rms mono output to panel speaker. Inputs mono or summed L+R in stereo model. Front panel Cue/Talk/Listen and studio intercom select by key switching.

MUTING:
Four relays standard. Programmable assignment of any input/output bus combination. Relays include N.O. contacts terminated for external warning light operation.

POWER REQUIREMENTS:
115Vac, 50/60 Hz (230Vac optional). ML-4000, 110W; SL-4100, 130W max.

DIMENSIONS:
43.5" W, 11" H, 27.5" D (110.5 x 27.9 x 69.9 cm)

WEIGHTS (Packed):
ML-4000/SL-4100 — 200 lb. with 10 modules. 215 lb. with 12 modules.

MODEL SL-4100 with top and right-hand front panels open. Input cabling readily terminated on input module top barrier strips. Output barrier strips at lower right. System plug-in electronic modules and secondary front panel controls and switches readily accessible. Installation eliminates all exposed cabling.
### 150/250/350 Series Consoles
#### Condensed Specifications

<table>
<thead>
<tr>
<th>PROGRAM/AUDITION CHANNELS</th>
<th>MODELS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10M350 (Mono)</td>
</tr>
<tr>
<td></td>
<td>10S350 (Stereo)</td>
</tr>
</tbody>
</table>

#### MIXING CHANNELS
- **Type Attenuation**: Conductive Plastic Slide Control
- **Inputs per Mixer**: Channels 1-8, 2 ea. Channels 9 & 10, 3 ea. Total Inputs: 22
- **VU Meters**: 10M350: 2 meters; Mix 1 & Mix 2 10S350: 2 meters; L & R switchable to mix 1 or mix 2

#### AMP MATION/INPUT IMPEDANCES & LEVELS
- **10M350**: 10 preamps; 2 line amps; 1 monitor amp; 1 cue amp; 1 headphone amp
- **10S350**: 10 stereo preamps; 4 line amp; 2 monitor amp; 1 cue amp; 1 headphone amp

#### MONO MATRIX
- **Input Impedances & Levels**: Microphone Mode: 150 ohms balanced, -65 dBm minimum to -38 dBm max. High Level Mode: 54kohms balanced bridging, -20 dBm minimum to +20 dBm max.

#### FREQUENCY RESPONSE
- **±0.5 dB, 30 Hz-20 kHz**

#### DISTORTION
- **0.05% IM and THD 30 Hz-20 kHz, at +18 dBm output**

#### S/N RATIO
- **70 dB below +18 dBm output with -50 dBm input, 20 kHz Bandwidth**

#### OUTPUT IMPEDANCE/LEVELS
- **600 ohms balanced, +8 dBm for zero VU meter reading, +18 dBm capability**

#### MONITOR AMP
- **Frequency Response**: +0.75 dB, 50 Hz - 20 kHz (1 kHz reference)
- **Distortion**: 0.75% or less, 30 Hz - 20 kHz @ rated rms output and load
- **Output Impedance/Power**: 8 watts rms per channel/8 ohm load

#### HEADPHONE AMP
- **1.0 W rms per channel. Front panel jack and input select switching**

#### CUE AMP
- **1.0 W rms to integral cue speaker. Also functions as intercom amplifier**

#### MUTING RELAYS
- **2 relays standard. Assigned to Mixers 1 & 2. Other combinations readily field modified.**

#### DIMENSIONS
- **Shipping Weights (packed)**
  - 10M350: 80 lbs.
  - 10S350: 85 lbs.

#### POWER REQUIREMENTS
- **105-125V, 50/60 Hz (210-230V, 50/60 Hz optional)**
FEATURES

- Advanced Microprocessor Control With Unique Dual Processor Concept
- Intelligent Two-Way Communications Between Operator And System
- 3000 Program Events And 11 Functions For Optimum Programming Creativity

GENERAL DESCRIPTION

Control 16 is a versatile management tool for effective program control. This unique program control system has the ability to smoothly handle even the most difficult program assignments. Formats such as All News, Religious, and Voice Track are carried out to perfection without any compromising. The precision of Control 16 produces a technically consistent on-air sound that is hard to match by live programming. The features described herein—many of them exclusive to Control 16—show how this new generation system can improve your station’s programming.

VERSATILE PROGRAMMING — All three popular methods of station programming can effectively be carried out...Sequential (when using cartridge music), Main/Sub (when using syndicated reel-to-reel music formats), and

- Advanced Compare Time Capability With 500 Event Capacity
- Flexible Operation—Adapts To Any Format
- Superior Technical Performance
- Field Proven Reliability

Time Insertion (when programming a loose format). You decide which method best serves your needs. All three are standard.

EASY SOURCE SUBSTITUTION — Any source can be substituted for any other source! Source substitution avoids having to reprogram the memory should a source machine ever become defective. Simply substitute some other source to play in place of the defective source!

AUTOMATIC MEMORY SEARCH — Let Control 16 do the work. Any commercial announcement can be quickly searched out for deletion or reprogramming. The memory can be automatically searched for any source or any specific source and shelf.
INSTANT DISPLAY OF ABORTED EVENTS — Aborted events are instantly displayed with an English description of exactly what happened, where and why. There are 8 conditions that will cause an aborted event and each is fully displayed on the CRT:

- Source Power Off
- Silence Sense
- Power Failure
- Source Card Out
- Machine Error
- Disabled
- Source Not Ready
- Repeated Source

UNIQUE SPECIAL EVENT INSERTION — Two Special Event Insertions can be preprogrammed and inserted into the normal program sequence either manually or by time. Either Special Event Insertion can consist of a single event or a cluster of events. The exclusive cluster capability provides for a bulletin open/report/spot/report/bulletin close to be easily sandwiched into the normal program sequence without reprogramming. The insertion can also be reinserted as often as necessary without having to reprogram each time.

CONVENIENT VOICE TRACK AND TIME ANNOUNCE DISABLE — Both the Voice Track and Time Announce Decks, if used, are automatically disabled following a power failure, to avoid playing the wrong voice cut or time announcement on the air.

DATA ERROR SENSING — The operator instantly knows when invalid data is being programmed. The word Invalid appears on the CRT and the keyboard sounds one pleasing beep. Programming a source to play back-to-back without the back-to-back function will cause a Repeat Source error.

Control 16's Data Error Sensing makes it virtually impossible to enter erroneous event or time data from the keyboard.

FLEXIBLE "GO TO" COMMAND — Control 16's unique "Go To" Command allows storing any number of program formats for later use. They can be easily called up at any time by the "Go To" command. No jump table or hard wiring of sub memory to restrict your programming creativity.

SELF-CORRECTING DIGITAL CLOCK — The crystal reference digital clock samples line frequency over a long period of time and feeds slight corrections back to the crystal, producing a highly stable time reference which has self-correcting capability. This self-correcting feature ends periodic clock resetting.

UNIVERSAL SOURCE CARD — A universal source card provides interchangeability between reel-to-reel and cartridge sources. This universal source card includes all components regardless of application and features:

- 25 Hz sensing for reel-to-reel sources
- Voice track update
- On-Air tally signal
- End of tape (reel-to-reel) alerting circuit
- Extend or defeat option of the system silence sensor
- 8 LED status indicators for diagnostics

UNIQUE DUAL PROCESSOR CONCEPT — Control 16's unique dual processor concept provides for limited automatic operation during emergency conditions. Should the main processor ever fail, the keyboard can be plugged directly into the Audio Control and up to 64 events programmed.

SIMPLE AUTOMATIC RESTART — Control 16 automatically restarts following a main AC power failure. If power is off less than 2 minutes, the next source is called on automatically.

SEVEN DAY COMPARE TIME MEMORY — Control 16 has an advanced design seven day compare time memory with a capacity for storing 500 time entries with 18 functions for programming the long weekends.

FIVE EXCLUSIVE VIDEO DISPLAYS — For making intelligent programming decisions quickly and easily.

- Program Display for monitoring on-air programming, and entering, editing, or reviewing other program events and compare times.
- Assignment Display for making initial system assignments such as Time Announce, Back Time/Dead Roll, Voice Track, etc.
- Log Display for reviewing the last 10 lines of program logging data.
- Events Display for reviewing the sequence of any 96 program events.
- Compare Time Display for reviewing the chronological order of any 72 compare times.
LIGHTWEIGHT, PORTABLE KEYBOARD
- Can be located up to 175 ft. from system.
- Engineered for logical and easy operation.
- Only 39 key switches in all-20 Mode Keys, 16 Data Keys and 3 Control Keys.
- Operator Error Sensing for assisting the operator in learning keyboard operation.
- LED display for next-to-run event, reviewing events, setting the digital clock, or making assignments.
- Three-way Electronic Lock prevents unauthorized access to the memory.

ANNOUNCER ASSIST REMOTE CONTROL — Control 16's portable keyboard puts the announcer in full command of music, commercials and other program material stored in the automation system. Any number of events can be set to segue automatically, giving the announcer time for other duties during periods of live programming. All events from the system, even during live programming, are automatically logged.

BATTERY-BACKED POWER SUPPLY — The power supply used in Control 16 features heavy duty components for a high degree of reliability. Includes battery backup for memory retention during power failure.

CONVENIENT CUSTOMER PANEL — For easy access to system inputs/outputs. Includes:
- Ten watt stereo monitor amps for clean, crisp audio.
- Four relay circuits for remote alerting of Next Source Not Ready, Logger Failure, Transmitter System Off The Air, and Aborted Event.
- Stereo and Mono Mix outputs at 600 ohms balanced.

MICROPROCESSOR AUDIO CONTROL — One of Control 16's new-generation microprocessors is located in the audio control. It makes decisions for proper program execution and checks system status for alerting the operator. Other features include:
- Full system audio monitoring with left and right meters. Pushbutton selector switches for monitoring Program, Off-Air, Cue, and External. Each can also be monitored in the SUM/NULL mode.
- Front panel digital display of on-air source and shelf.
- Front panel indication of the EOM (End of Message) from the on-air source.
- Front panel alarm indicator and reset switch.
- Self-correcting 12/24 hour digital clock with one pulse per second output for external use.
- Dual Program Bus with adjustable level reduction for voice-over.
- Dual Silence Sensing of system's audio and of the off-air audio.
- FSK logging decoder with 10 line data buffer.
- Easy access to switches, and level controls located on back of swing-out front panel.
- Capacity for 16 sources, including a dedicated 600 ohm balanced input for network. Source capacity can be expanded to 32 or 47 sources.

NEW GENERATION MAIN PROCESSOR — Control 16's main processor includes one of the system's two identical high-performance microprocessor boards. This microprocessor checks entries for errors; communicates with peripheral computer or printer for automatic memory loading or printing; stores your program format and commercial load as entered from the keyboard; and sorts compare times into chronological order. Other features include:
- 3000 event Program Memory expandable to 10,000 events. Standard memory is capable of storing advance programming for several days. Any one of 11 functions can be programmed with each event for creative programming.
- Seven day, Compare Time Memory for storing 500 compare times. Repetitive daily and hourly entries greatly expand the compare time capacity. Any one of 18 functions can be programmed with each compare time for versatile time control.
- Plug-in circuit boards located in slide-out chassis for easy access.
- Includes port for memory loading and printing, or for external business system.

ORDERING INFORMATION
See price list for all ordering and pricing information.
The Econo-Control 16 is an economy version of Broadcast Electronics' highly successful, top of the line Control 16. Many of Control 16's unequaled features such as simplicity of operation and superior technical performance are retained in this new smaller program controller. Econo-Control 16 meets the broadcaster's demand for a small control system with a modest degree of sophistication.

WHAT'S THE DIFFERENCE? — Putting it quite simply, Econo-Control 16 does not use a CRT video monitor. It does, however, include the same portable lightweight Keyboard and the unique Audio Control unit as the full Control 16. This design concept makes Econo-Control 16 the only small microprocessor controller that can be expanded to include all the features of the top of the line video monitor systems. Should your later needs require full two way communication, simply plug in the CRT video monitor and associated electronics to expand your Econo-Control 16 to include all the features of the full Control 16. Since the same Keyboard is used, the time required for operator retraining is minimized when expanding later.

HOW ABOUT LIVE ASSIST? — Econo-Control 16 fits in quite nicely with "live assist" programming. From the portable keyboard, the on-air announcer has easy access to all sources in the system. He can "random select" pre-recorded commercials and music to be played on the air at his discretion, thus allowing the announcer more time for creative live programming.

All pre-recorded material played on the air can be logged in full English with our optional "InteLog" automatic program logging. This feature also relieves the announcer of the mundane task of manually keeping the log.

The announcer has full control of the audio playback sources (start, automatic, manual, fade, etc.) from the keyboard. This lightweight (only 9 lbs.) portable Keyboard is engineered especially for the live assist operation. It can be located up to 175 feet from the Audio Control unit. The large, conveniently located start switch provides easy operation without the need for visual contact.

Econo-Control 16 is a valuable tool for automatically selecting commercial announcements to be played during live sport events or telephone talk shows. Program only a few events ahead or a full 2000 events ahead and start each at the desired moment.

WHAT DOES ECONO-CONTROL 16 OFFER? — Econo-Control 16 is an advanced microprocessor controller that offers many operational features usually found only in the more expensive top of the line program controllers. Here is what you get with Broadcast Electronics' Econo-Control 16:

2000 PROGRAM EVENTS — You can use SEQUENTIAL, MAIN FORMAT/SUB FORMAT, or TIME INSERTION programming, with 2000 events standard. All 3 methods are included to provide the flexibility needed to meet your changing needs.

11 EVENT FUNCTIONS — Each event can be programmed with a function along with source and shelf data for positive program control. Functions include:
Econo-Control 16

LINK — to link events together to prevent interruption by time update.
MULTI-START — for smoothly playing time announce-
ments over music.
BACK-TO-BACK — for playing the same reel-to-reel
source without stopping between selections.
STOP — to take manual control.
RETURN — for inserting commercials into a repetitive
format.
PREROLL — for updating the voice track.
RELAY — for firing optional relays for switching on or off
devices external to your system.
UPDATE — the event which the memory will go to when
a time jump command takes place.
PLAY — tells the system to play this event normally.
AVAIL — leaves this event blank and available for later
use.
GO TO — commands the memory to go to a specific
event in memory.

BUILT-IN SELF CORRECTING CLOCK AND COMPARE
TIME MEMORY — This crystal reference digital clock has
many advanced self correcting features. The time memory
has capacity for storing 10 entries which repeat on an
hourly basis. Any one of 13 functions can be programmed
with each time entry.

When the real time clock coincides with a time entry, the
system will execute the function. Functions include: STOP,
RETURN, PREROLL, RELAY (with optional relay panel).
START, JUMP, FADE & START, FADE & STOP, DEAD
ROLL START, DEAD ROLL LIMIT, NETWORK EOM,
SPECIAL EVENT 1 INSERTION and SPECIAL EVENT 2
INSERTION.

DATA ERROR SENSING — The operator instantly knows
when invalid data is being programmed by a pleasant
sounding beeping emitted from the Keyboard. Programming
a nonexistent source or shelf will be sensed immediately
and cause automatic reset for accepting valid data.

Programmed a source to play back-to-back without the
Back-to-Back function will cause a repeated source error.
This feature prevents the common mistake of program-
ing two commercial announcements back-to-back from
the same random access machine.

Econo-Control 16's DATA ERROR SENSING makes it
virtually impossible to enter erroneous event or time data
which would otherwise disrupt your on-air sound.

UNIVERSAL SOURCE CARD — Econo-Control 16's
source cards are truly universal. Only one type is used for
all sources—reel-to-reel sources, single deck cartridge
sources, random access sources, etc., and each is fully in-
terchangeable with the other source cards. Each universal
source card features:
- 25Hz sensing for reel-to-reel sources
- Voice track update control
- On-air tally signal
- End-of-tape (reel-to-reel tape) alerting signal
- System Silence Sense extend or defeat
- 8 LED diagnostic indicators

SIMPLE SPECIAL EVENT INSERTION — News bulletins
or last minute program changes can be easily inserted into
the normal program sequence either manually or by time.
Two "Special Event Insertions" can be pre-programmed
and inserted and reinserted in the program sequence as
often as you like without having to reprogram each time.
With the Econo-Control 16, you are never locked in or
prevented from making last minute changes.

UNIQUE ASSIGNMENT TABLE — The unique assignment
table means sources no longer have to be hard wired and
dedicated to specific use such as Time Announce, Back
Time/Dead Roll, or Voice Track. You simply assign, via the
keyboard, the sources you want to use for Time Announce,
etc., in the assignment table. Should you later decide to
use these source playbacks for news, weather, sounders,
voicers, etc., you only need to change the assignment
table and not the source wiring.

FULL AUTOMATIC RESTART — Econo-Control 16 has the
intelligence to automatically restart itself following a main
AC power failure. Furthermore, if the source which was on
the air when the power failure occurred was a single deck
cartridge machine or reel to reel machine, it will be
automatically recued off-the-air when power returns.

DIAGNOSTIC PRINTOUT OF ABORTED EVENTS (with
optional printer) — Aborted events are instantly printed
with an English description of exactly what occurred.
There are 8 conditions that will cause an aborted event:
- Source Power Off
- Source Card Out
- Power Failure
- Machine Error
- (Source) Disabled
- Source Not Ready
- Repeated Source
- Silence Sense

Say, for example, the log printout reads:
02:05:02P 0005 PLAY 01-00 ***SOURCE POWER OFF***

From the description you can tell that source number 01
did not play at event 0005 when called upon at two sec-
onds after 2:05 P.M., because the source power was not
on.

TO EXPAND YOUR ECONO-CONTROL 16 — The Econo-
Control 16 is especially attractive to those broadcasters
whose present needs do not justify the capabilities of the
full Control 16, but who may want to expand to the full
Control 16 at a later date.

If you decide to expand, simply add the CRT video
monitor and Main Processor chassis to have all the
benefits of the full Control 16. (See pages 53-55)
TECHNICAL SPECIFICATIONS: CONTROL 16 AND ECONO-CONTROL 16

Program Output: +8 dBm stereo balanced 600 ohms

Headroom: +12 dB

Frequency Response: ±1 dB from 40 Hz to 20 kHz with reference of 1 kHz at +8 dBm output and including 25 Hz filters

Total Harmonic Distortion: Less than .5% at +18 dBm output from 40 Hz to 20 kHz

Signal To Noise: 70 dB or more below +8 dBm output. (Not including source noise)

Stereo Separation: 55 dB or more below +8 dBm output from 40 Hz to 20 kHz

Cue to Program Separation: 70 dB or greater for “0” dBm input to source

25 Hz Filters Attenuation: 55 dB or more (typically 60 dB) at 25 Hz below reference output of 1 kHz at +8 dBm

Mono Mix Program Output (L+R): “0” dBm mono balanced 600 ohms following 25 Hz filters

Headroom Mono Mix: +12 dB

Source Audio Input: “0” dBm at 600 ohms unbalanced for +8 dBm output

Network Audio Input: “0” to -25 dBm (adjustable) mono 600 ohms balanced

Off-Air Audio Input (To Off-Air Silence Sensor and Monitor Panel): “0” dBm stereo 600 ohms balanced

External Audio Input (To Monitor Panel): “0” dBm stereo 600 ohms balanced

Monitor Amp Output: Stereo, 10 watts RMS/channel at less than .5% distortion

Remote On-Air Tally (from each source card): Open collector 60 ma max.

Clock reference output for external use: One PPS contact closure or TTL output

REMOTE ALERTING OF SYSTEM STATUS

1. Remote End of Tape Alerting (from each source card) is open collector 60 ma max.

2. Next to Run Source Not Ready is a contact closure with automatic reset when source becomes ready.

3. Aborted Event is a contact closure when an event is aborted for any one of 8 reasons: Source Power Off, Source Card Out, Source Was Not Ready, Silence Sense, Machine Error, Repeated Same Source, Source Disabled, and System Power Failure.

4. Logger Failure is a contact closure when log printer loses power or interconnect cable is disconnected with automatic reset when printer conditions are normal.

5. Transmitter System Off The Air is a contact closure when the Off-Air Silence Sensor detects silence from the off-air monitor. Has automatic reset feature when audio returns.
Features

- Electronic tab setting
- 32-line buffer memory
- Automatic error detection
- Full editing capability
- Automatic printout of encoding instructions
- Exclusive "Message Restore"
- Fast, reliable microprocessor encoding

General Description

Broadcast Electronics' high speed InteLog represents the first real advance in operational convenience and printout of diagnostic messages in English logging since the early 1970's. It is designed for use with Broadcast Electronics "intelligent" automatic program control systems—Control 16 and Econo-Control 16—and is another example of BE's solid, reliable and advanced-design automation products.

ENCODING

InteLog's encoder is microprocessor controlled, and includes many unique features for fast, reliable encoding of cartridges with logging data. The typical encoding setup includes a data terminal, a cartridge recorder and the InteLog encoder.

Electronic Tab Setting - The Electronic Tab Setting feature is just like the tab stops on a typewriter, for ease in preparing your messages for neat, columnized printout...just like you manually kept log.

InteLog further simplifies the encoding process by printing step-by-step instructions guiding the operator through the encoding procedure. This two-way communication between the encoder and operator makes InteLog a truly "intelligent" logging system.

Full Editing Capability - Messages stored in memory can be fully edited, not only for minor errors such as spelling, but also to add or delete several words at a time. Messages can therefore be changed without re-entering the entire message.

Exclusive Automatic Error Detection - InteLog automatically compares the message being encoded on the tape with the message as stored in memory, and upon completion of the encoding process, tells the operator if there are any mistakes. This saves the operator time in verifying the encoded messages.

Message Restore - When updating a client's commercial, there is no need to re-type the logging message into the memory. With InteLog simply play the old commercial on the encoder cart machine, storing in memory the logging message on that cart. Next erase the cart. Then the new commercial is recorded on the cart and the old logging message encoded back onto the cart from memory.

32-Line Buffer Memory - InteLog's encoder memory provides convenient storage of 32 single line messages, or any combination of multiple line messages up to a total of 32 lines. This capacity allows the storing of a complete log heading in many cases. Several messages may also be entered for systematic encoding.

InteLog's encoder includes a five-position transfer switch for switching the data terminal used for encoding to other uses such as printing information from Control 16's memory. This provides a hard copy printout of any selective group of events for convenient review. Control 16's time entries used for time updates can also be printed out for review.

DECODING

InteLog provides an FCC acceptable log, complete with log heading, space for the operator to sign on and off, and exact start time for each event, along with the event and source number. It also prints six diagnostic codes and nine diagnostic descriptions indicating abnormal program operation.

The six diagnostic codes tell you if an on-air event did play to completion, and the reason why. For instance, the designation "FO" means the event was Faded OFF the air; "@" means this event played while the transmitter system was off the air.

The nine diagnostic descriptions tell you if an event did not go on the air as scheduled, and the reason it did not play. They are:

SOURCE POWER OFF, SOURCE NOT READY, DISABLED, SOURCE CARD OUT, REPEATED SOURCE, MACHINE ERROR, XMTR SYSTEM OFF THE AIR, XMTR SYSTEM ON THE AIR, POWER FAILURE.

Ordering Information

See Price List for all ordering and pricing information.
Cabinets are a pleasing addition to any facility with rack quality finish. The units are sanded, phosphatized, painted, baked cured, and then carefully inspected before being shipped. A quality product in all ways, BE Series 4000 rack cabinets are a pleasing addition to any facility with rack mountable equipment.

**FEATURES**
- Available in one-, two-, three- and four-bay configurations
- Identical to Control 16 automation racks for attractive, uniform installations
- Pleasing blue and black color scheme
- Louvered back door, top plate, side panels, cowlings and front mounting channels standard

**DESCRIPTION**

B.E. Series 4000 rack cabinets provide a convenient means for arranging equipment and at the same time give a neat appearance to the surrounding facility. They are especially desirable when used in a radio station containing a B.E. Control 16 or Econo-Control 16 program automation system, since the same racks are used in those products. This gives an attractive, uniform appearance to the installation.

These heavy duty rack cabinets can be ordered in one-, two-, three- and four-bay configurations, depending on your current and future needs. Each rack cabinet, whether a single or multiple bay model, comes with the following standard components: louvered back door(s), top plate(s), side panels, cowlings(s), and front mounting channels. Door locks, rear mounting channels, plugmolds and blank panels can be ordered as options if needed.

The rack frames are black, with light blue side panels, top panels and doors. Trim strips and cowlings are brushed aluminum with black inserts.

All BE supplied Series 4000 rack cabinets undergo a modern prefinishing and painting process to assure a top quality finish. The units are sanded, phosphatized, painted, baked cured, and then carefully inspected before being shipped. A quality product in all ways, BE Series 4000 rack cabinets are a pleasing addition to any facility with rack mountable equipment.

**STOCK NO.**

<table>
<thead>
<tr>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>840-4000</td>
<td>ONE RACK BAY, same as above except less side panels. Weight (packed): 148 lb.</td>
</tr>
</tbody>
</table>

840-4005 Optional LOCKING flush handle for the above racks (H36SL-L1-V for left hinged door), one per rack.
840-4006 Pair of "L" type rear mounting channels. (One pair required per rack) MXL-61
840-4007 3 Plugmold with 6 AC outlets. PM-36-6
840-4008 5 Plugmold with 10 AC outlets. PM-60-10
506-0175 1/4" Blank Panel - Black, 1 rack unit
506-0350 3/4" Blank Panel - Black, 2 rack units
506-0525 5/16" Blank Panel - Black, 3 rack units
506-0700 7/8" Blank Panel - Black, 4 rack units
506-0875 81/2" Blank Panel - Black, 5 rack units
FEATURES

- Ultra Stable, Low Distortion 25Hz Generator For Cue Tones
- Active 25Hz Filters In Left & Right Channels
- Left or Right Channel 25Hz Record And Detection

1kHz Tone For Recording Reference Level Tone
25Hz Sensors For Recorder Stop And/Or External Switching
Remote Controllable

GENERAL DESCRIPTION

The new Broadcast Electronics TG-2 Dual Tone Generator is used in the production of reel-to-reel tapes for use with broadcast program control systems.

The TG-2 incorporates a 25Hz oscillator, 1000Hz oscillator, two 25Hz sensors (for left and right channels), audio filters, logic circuitry and power supply in one single compact unit for the utmost in versatility. Its many useful features, modern electronic design and attractive styling make it a welcome addition to any radio station, music service or production facility.

SIMPLE, STRAIGHTFORWARD OPERATION — Operation of the Dual Tone Generator is simple and straightforward. As a reel of music or program material is recorded, it is first filtered by the Dual Tone Generator to remove all audio in the spectrum below 50Hz on both left and right channels. Then a low distortion, frequency stable 25Hz "cue tone" is recorded on either the left channel, right channel, or both channels simultaneously. The duration of the tone can be pre-set (from 0.1 sec to 2 sec) for the exact length of time desired.

When the reel of tape is played back on a program control system, the 25Hz "cue tones" on the left channel (stereo) will signal the program control system to start the next event. The use of the 25Hz signal on the right channel can indicate the beginning of the next block of programming for synchronized voice track machines.

1kHz REFERENCE TONE — The Dual Tone Generator can also be used to record a 1kHz tone on both left and right channels as a reference level tone on the beginning of a tape. When the tape is then cued up on the reel-to-reel machine in the program control system, it is a simple matter to set the gain levels on that machine to the 1kHz reference. There are many additional applications for the Broadcast Electronics Dual Tone Generator other than mastering reel tape with cue tones. Contact Broadcast Electronics for information on these applications.

LOGIC CIRCUITRY — Built-in logic circuitry in the Dual Tone Generator allows the operator to start and stop the reproducer and recorder on command from various different sources.

ATTRACTION FRONT PANEL — The front panel graphics on the TG-2 are under a tough laminated polycarbonate overlay. This not only enhances the attractiveness of the unit but also makes it virtually impossible to scratch or wear the lettering away.

The BE Dual Tone Generator comes standard in a rack mount configuration, and fits any standard 19" rack. It can also be remote controlled for additional operational versatility. All inputs, output and remote connections are made through terminal block barrier strips on the rear panel.

MASTERING REEL-TO-REEL TAPES WITH CUE TONES
TYPICAL APPLICATION OF DUAL TONE GENERATOR

RECORDED AUDIO FROM PLAYBACK
STEREO OR MONO

PROGRAM AUDIO
STEREO OR MONO

25HZ SENSOR
INPUT

FILTER &
GENERATOR
SECTION

500HZ
LOW Z

STOP
CONTROL

REEL-TO-REEL RECORDER

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SPECIFICATIONS

DETECTORS

Input:
High Impedance bridging input.

Sensitivity:
Detects 25Hz tones as low as -17 dBm.

Selectivity:
Rejects tones outside of the 20Hz to 30Hz range at ~8 dBm input level.

FILTERS

Input:
High impedance bridging input at 0 dBm.

Output:
Low impedance capable of driving a 600 ohm load.

Output Level:
0 dBm output into 600 ohm with 0 dBm input level 20 dB overhead (~20 dB output before clipping).

Noise:
70 dB below 0 dBm output.

Distortion:
Less than .05% THD + IMD at +10 dBm output, 100Hz to 20kHz; .1%, 50Hz to 100Hz.

Frequency Response:
+/- .5 dB 50Hz to 20kHz.
-45 dB or more at 25Hz.

Crosstalk:
Better than 60 dB separation.

OSCILLATORS

25Hz - Frequency: ± 25Hz; Distortion: Less than .5%; Output Level: Adjustable, -20 to 0 dBm.

Stop Delay:
Adjustable, 0-10 seconds.

Fixed Tone Length:
Adjustable, .1 to 2 seconds.

Operating Temperature Range:
0 - 50°C.

Power Requirements:
115V/230Vac, 50/60Hz, 20 watts.

Dimensions:
19" Wide × 3¼" High, 8½" Deep.

Weight:
5 lbs., 4 oz.; (packed - 8 lbs.).

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>TG-2</td>
<td>908-6860</td>
<td>Dual Tone Generator</td>
</tr>
</tbody>
</table>
FEATURES

- Automatically rewinds and recues tape after last song
- Automatically fast forwards tape onto take-up reel

GENERAL DESCRIPTION

The Broadcast Electronics AUTO REWIND eliminates the need for human intervention when rewinding a reel-to-reel music tape for replay in an automated station. Should your format require a tape to repeat itself, such as the "current hit" reel, it can be done automatically with the AUTO REWIND. The AUTO REWIND can also be used to fast forward a tape (tails out) onto the take-up reel after the last music selection has played.

The AUTO REWIND senses foil on the backing side of the tape to trigger the rewind operation. The AUTO REWIND will interface with almost any modern broadcast type reel-to-reel playback machine. It can also be used with most program automation systems.

A front panel alarm indicator and reset switch provides indication of the automatic rewind mode. Should the tape fail to go into the play/recue mode following rewind, the alarm indicator remains on. Contacts for a remote alarm indicator are also provided.

The Broadcast Electronics AUTO REWIND mounts in a standard 19" rack and takes up only 1 3/4" of rack space. Each AUTO REWIND provides automatic rewind control for one reel-to-reel playback machine.

SPECIFICATIONS

Relay Contacts:
Bifurcated, rated at .1 amp @ 250V AC or DC.

Tally Signal:
A ground connection capable of sinking .5ma @ 24V is required to indicate when source is "on the air".

Foil Sense:
A ground connection capable of sinking .5ma @ 24V is required to indicate the presence of foil.

Power Requirements:
105 to 130V AC or 210 to 240V AC, 50 or 60Hz. 10 watts.

Temperature:
0° to 55°C.

Humidity:
10% to 95%, non-condensing.

Dimensions:
1.75"H × 19"W × 9.5"D.

Weight:
3 lb. 5 oz.

ORDERING INFORMATION

MODEL STOCK NO. DESCRIPTION
908-6850 Auto Rewind

AUTO REWIND BLOCK DIAGRAM
GENERAL DESCRIPTION

MAINTAINS HIGH AVERAGE MODULATION, PROTECTS AGAINST OVERMODULATION — Designed for smooth, noise-free control of AM transmitter peak modulation, the Broadcast Electronics AM-400 Compressor/Limiter amplifier insures the AM broadcaster against overmodulation while automatically maintaining average modulation at optimum levels.

125% POSITIVE, 100% NEGATIVE OR EQUAL 100% POSITIVE/NEGATIVE PROCESSING — The AM-400 may be operated in a symmetrical mode, producing equal positive and negative output peaks, or alternatively in an asymmetrical mode which produces positive peaks at a 25% higher amplitude than the negative peaks.

THREE-MODE OPERATION — The AM-400 may be operated in three basic modes: a) Compression and limiting, b) compression only, or c) as a fixed-gain, conventional line amplifier. This switching, as well as the symmetrical/asymmetrical operation, plus power on/off switching are on the rear chassis apron.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Feature</th>
<th>AM-400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Impedance</td>
<td>600 ohms, transformer balanced.</td>
</tr>
<tr>
<td>Input Level</td>
<td>20 dBm to +20 dBm for +20 dBm output.</td>
</tr>
<tr>
<td>Frequency Response</td>
<td>±1 dB, 30 Hz - 15 kHz (1 kHz reference).</td>
</tr>
<tr>
<td>Distortion</td>
<td>0.5% or less, 30 Hz - 15 kHz at +20 dBm output.</td>
</tr>
<tr>
<td>Signal-to-Noise (unweighted)</td>
<td>60 dB below +20 dBm output with -20 dBm input.</td>
</tr>
<tr>
<td>Output Impedance</td>
<td>600 ohms, balanced.</td>
</tr>
<tr>
<td>Output Level</td>
<td>Adjustable, +20 dBm maximum. VU meter switchable for &quot;zero VU&quot; deflection at +4 dBm and +10 dBm nominal output.</td>
</tr>
</tbody>
</table>

| Specification | AM-400 ...
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Compression Ratio</td>
<td>30 to 1 max.</td>
</tr>
<tr>
<td>Compression Release Time</td>
<td>Adjustable, 5 to 40 seconds for 20 dB release.</td>
</tr>
<tr>
<td>Limiter Attack Time</td>
<td>1.0 microsecond.</td>
</tr>
<tr>
<td>Controls/Switches</td>
<td>Front Panel: Input Level, Output Level, Compression Release Time, Meter Switch (+4 dBm, +10 dBm, relative gain reduction). Rear Panel: Symmetrical/Asymmetrical.</td>
</tr>
</tbody>
</table>

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Model</th>
<th>Stock No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-400</td>
<td>837-4001</td>
<td>AM Compressor/Limiter</td>
</tr>
</tbody>
</table>

FEATURES

- Symmetrical Or Asymmetrical Processing
- Adjustable Compression Release Time
- 1-Microsecond Attack Time
- +20 dBm Output Capability

TAMPER-PROOF INSTALLATION — Front panel, screwdriver access control of input and output line levels; compression release time; and selection of +4 or +10 dBm output level and relative gain metering permit presetting of all operating functions and parameters, free from subsequent inadvertent misadjustment or tampering.

QUALITY CONSTRUCTION AND PERFORMANCE — Packaged for rack-mounting in 3½" of space, the compact AM-400 unit contains all of the sophisticated electronic circuitry, with high quality components mounted on a readily-accessible, single printed circuit board. The AM-400 is subtly-styled to blend with other rack-mounted equipment.

Long-term reliability combined with guaranteed, broadcast-grade professional specifications give the AM broadcaster excellent audio signal processing capability at moderate cost.
FEATURES
- Overmodulation Protection
- Symmetrical Or Asymmetrical Modes
- Advanced Audio Processing Techniques

GENERAL DESCRIPTION
ADVANCED AUDIO PROCESSING—SYMMETRICAL OR ASYMMETRICAL OUTPUT — The Broadcast Electronics AM-500 utilizes advanced audio processing technology to produce an output of controllable, overall dynamic range that complies precisely with individual AM broadcast station programming objectives. Simultaneously, short-duration program peaks are restricted so as to minimize the possibility of overmodulation. The AM-500 may be operated in either a symmetrical (100% positive, 100% negative) or an asymmetrical (125% positive, 100% negative) output mode.

THREE MODE OPERATION — The AM-500 may be operated in three basic modes: 1) Compression, limiting and expansion, 2) compression only, or 3) as a fixed gain, conventional line amplifier. This switching, as well as the symmetrical/asymmetrical operation, plus power on/off switching, is on the rear chassis apron.

AUDIO GATING FOR OPTIMUM LOW NOISE OPERATION — Since extended periods of relatively low-level program material, or its total absence, would cause the comparator to sense a need for an extremely high degree of expansion, with a resultant increase in hiss, hum or background noise, this condition is avoided by audio gating circuitry which holds the processor gain constant for a maximum 17-second period, then automatically reverts to the processor’s fixed gain point. Whenever higher-level programming resumes, normal operation continues instantly.

OVERMODULATION PROTECTION — Protection against high-amplitude program peaks of short-duration is by means of a peak clipper. Only those peak signals which occur prior to peak level detection, generally a single cycle, will be clipped. Subsequent cycles will not, since the peak level detector rapidly senses these as a “compress command” to the comparator which, in turn, reduces overall gain.

EASY, STRAIGHTFORWARD “SET-UP” — Installation and set-up is simple. Input and output controls are adjusted, consistent with input source level and transmitter audio input requirements to produce the desired degree of either symmetrical or asymmetrical maximum modulation. A convenient test/operate switch is incorporated. In the test position, the AM-500 operates as a conventional line amplifier for conducting proof-of-performance measurements.

SPECIFICATIONS
Input Impedance: 600 ohms, transformer balanced.
Input Level: -20 dBm to +20 dBm for +20 dBm output.
Frequency Response: ±1 dB, 30 Hz to 15 kHz (1 kHz reference).
Distortion: 0.5% or less, 30 Hz - 15 kHz at +20 dBm output.
Signal-to-Noise (unweighted): 60 dB below +20 dBm output with -20 dBm input.
Output Level: +20 dBm max. (adjustable).
Output Impedance: 600 ohms balanced.
Maximum Overall Gain: 60 dB (full expansion).
Maximum Expansion: 20 dB.

Maximum Compression: 30 dB.
Compression Ratio: 30 to 1 max.
Compression Release Time: Adjustable, 5 to 40 seconds for 20 dB release.
Limiter Attack Time: 1.0 usec.
Limiting Modes: Symmetrical (equal positive and negative) or asymmetrical (positive 25% greater than negative) peak limiting.
Controls/Switches:
Front Panel: Input level, output level, compression release time.

Rear Panel: Symmetrical/Asymmetrical modes; compress/limit/expand, compress only, test; power on/off.
Indicators/Meters:
(Front Panel) gain reduction meter indicates nominal gain, and relative compression or expansion; audio presence and power line presence indicators.
Power Requirements:
105 to 125 VAC, 50/60 Hz, 11 watts; 210 to 230 VAC, 50/60 Hz, optional.
Dimensions:
19" W × 3.5" H × 9" D (48.3 × 8.9 × 22.9 cm.)
Weight (packed): 9 lbs. (4.1 kg.).

ORDERING INFORMATION
MODEL AM-500
STOCK NO. 837-0500
DESCRIPTION AM Compressor/Limiter/Expander
FEATURES
- Independent Compression/Expansion Control
- Advanced Audio Gating
- Single 5 1/4" Rack Package
- Mono and Stereo Models
- Modular, Front Access Plug-In Electronics
- Dolby-B Compatible

GENERAL DESCRIPTION

OVERMODULATION PROTECTION, PLUS FULL PROCESSING CONTROL — The Broadcast Electronics FM-600 monaural, and FM-601 stereo AGC/Limiter amplifiers allow the FM broadcaster to modulate his transmitter at the highest permissible level and to precisely control the amounts of signal compression and expansion in order to maintain a desired station "sound." These amplifiers, unlike many audio processors, do not produce an uncontrollable "sound" of their own. Instead, they permit the broadcaster to smoothly establish the sound he wishes to produce...whether it be "the loudest sound in town" or the gentle "tailoring" of classical music with wide dynamic range. And this is accomplished with no "thumps", extraneous noise or distortion.

AUDIO GATING—SMOOTH COMPRESSION AND EXPANSION CONTROL — Innovative audio-gating techniques which sample incoming program material, automatically apply signal processing only when needed. This gated operation mode allows 50 dB of automatic level control. Individual controls establish compression over a 0 to 30 dB range and expansion, if desired, from 0 to 20 dB. These control adjustments have no effect on maximum peak output levels nor on limiter attack time. In their full-on positions output is at nearly-constant amplitude. Thus a combination of control settings, precisely suited to individual station program material, is easily established.

SIMPLE SET-UP AND OPERATING MODE SELECTION — Set-up controls and operating mode switches are mounted on plug-in modules accessible behind the hinged front panel. Mode switch functions include selection of: (a) 75-microsecond pre-emphasis; (b) 25-microsecond pre-emphasis (for Dolby-B compatibility); (c) flat-frequency response; (d) test (unit operates as conventional line amplifier. Convenient for proof-of-performance measurements); (e) full gated expansion/compression; and (f) limiting only. All mode switching may be controlled remotely by switch closures to ground.

AUTOMATIC STEREO BALANCE — Precise stereo balance is insured by matched, ultra-linear, temperature-compensated voltage-controlled amplifiers.

COMPACT, SINGLE 5 1/2" RACK-MOUNTED PACKAGING — The amplifiers replace, in a single 5 1/2" rack-mount package, separate interconnected AGC and limiting amplifiers. This is done without crowding and with front access to all electronics, which are on six labelled plug-in cards. Output levels plus compression and expansion are fully metered.

EASY SET-UP, AUTOMATIC BY-PASS — Set-up is straightforward, requiring adjustment only of input and output level, compression, expansion and expansion return rate controls. Typical of the consideration given to practical operating situations is built-in, automatic, bypass switching in the event of power interruption and fully-regulated, self-protected power supplies.
FM-AGC/Limiters
Model FM-601 Stereo
Model FM-600 Mono

SPECIFICATIONS

Input Impedance:
600 ohm, transformer balanced.

Input Level:
20 dBm to 26 dBm for 20 dBm output
20 dBm input yields 20 dBm output
with zero compression or expansion.

Frequency Response:
-0.5 dB, 20 Hz - 20 kHz (1 kHz reference).

Distortion:
0.5% or less, 20 Hz - 20 kHz at 20 dBm output.

Signal-to-Noise:
70 dB or greater below 20 dBm output
with 20 dBm input.

Output Impedance:
600 ohm, transformer balanced.

Output Level:
Adjustable, 20 dBm maximum.

Overall Gain:
60 dB with full expansion.

Compression Range:
0 to 30 dB

Expansion Range:
0 to 20 dB

Expansion Recovery Rate:
Adjustable, 5 to 40 seconds for 20 dB expansion.

Average/Peak Ratio:
Adjustable, 35 dB minimum, 1 dB maximum.

Limiter Attack Time:
5 microseconds or less for 10 dB of limiting.

Equalization:
Normal Mode: 75 microseconds, 25 microseconds, or flat response (50/25 usec or flat optional).
Test or Limit Only Modes: Flat response.

Operating Temperature Range:
0° to 55°C.

Power Requirements:
105 to 125 or 210 to 230 Vac (switchable).
50/60 Hz, 30 watts.

Dimensions:
19” Wide, 5.25” High, 10” Deep (48.3 x 13.3 x 25.4 cm)
EIA Std. Rack Mounting.

Weight (packed):
16 lbs. (7.2 kg).

ORDERING INFORMATION

MODEL | STOCK NO. | DESCRIPTION
--- | --- | ---
FM-600 | 837-0600 | Mono FM AGC/Limiter w/mating 24-pin female conn.
FM-601 | 837-0601 | Stereo FM AGC/Limiter w/mating 24-pin female conn.

BLOCK DIAGRAM — MODEL FM-601 STEREO AGC/LIMITER
GENERAL DESCRIPTION

The AD1B Audio Distribution Amplifier distributes an audio input to multiple points within a studio system or to telephone lines. Facilities for visual and aural monitoring of the incoming signal are provided on the front panel by means of a VU meter and a headphone monitor jack. The meter and headphone jack also monitor the output from each channel. Locking-type controls are provided for adjusting each output channel.

Five highly isolated output channels are provided on the basic AD1B. Frequency response is essentially flat from 40 to 20,000 Hz. Distortion is well below 1% at rated output and peak overload handling capacity is in excess of 12 dB. Noise is better than 60 dB below rated output with 60 dB isolation between channels.

FIVE CHANNEL EXTENDER — The AD1B-X Extender is designed to expand the number of output channels provided by the basic AD1B unit if more than five output channels are needed. Each AD1B-X Extender provides five additional output channels and up to four Extenders may be added to each basic AD1B unit. Metering and audio monitoring are automatically provided to the AD1B-X Extenders by strapping between the basic AD1B unit and the AD1B-X Extenders.

SPECIFICATIONS

AD1B (BASIC UNIT)
Input Impedance:
600 ohms matching, 10 kHz bridging.
Output Load Impedance:
Emitter-Follower—600 ohms or higher.
Optional transformer output 600/150 ohms.
Maximum Input Level:
+30 dBm.
Minimum Input Level:
-26 dBm matching. -10 dBm bridging.
Output Level Per Channel:
+4 dBm (+4 dBm max.).
Gain:
30 dB (matching), 14 dB (bridging).
Frequency Response:
+1 dB -150,000, -2 dB 20-200,000 Hz.
Distortion:
Less than 1%.
Noise:
65 dB or better below rated output.
Channel Separation:
60 dB @ 400 Hz.
Maximum Ambient Temperature:
55°C.
Power:
115V, 50/60 Hz, 50 watts or optional 220V, 50/60 Hz, 50 watts.
Dimensions:
19” W x 5¼” H x 7¼” D.
Weight:
9½ lbs.
Mounting:
19” rack.

AD1B-X (5 CHANNEL EXTENDER):
Input Impedance:
1200 ohms, unbalanced.
Input Level:
-5 dBm.
Gain:
Unity.
Output Level Per Channel:
-4 dBm.
Power:
115V, 50/60 Hz, 40 watts or optional 220V, 50/60 Hz, 40 watts.
Dimensions:
19” W x 5¼” H x 7¼” D.
Weight:
8 lbs.

BEM-10 MONITOR AMPLIFIER

GENERAL DESCRIPTION

The BEM-10 is a conservatively rated wide powerbandwidth 10-15 watt rms audio amplifier. It is designed for system sound applications requiring one microphone and one program source. As many as twenty speakers (tapped ½ watt) may be driven from the 25 or 70.7 volt balanced output, or a single four-ohm speaker system may be driven to a full 15 watts rms from the unbalanced output. The BEM-10 features a fully electronic page mute system.

SPECIFICATIONS

Power Output:
10 watts rms—16 ohms unbalanced
25/70.7 volt balanced line. 12.5 watts rms—8 ohms unbalanced. 15 watts rms—4 ohms unbalanced.
Frequency Response:
+1 dB, 50-15,000 Hz.
Hum & Noise:
Mic: 60 dB below 10 watts output.
Pg: 70 dB below 10 watts output.
Program/Line Input:
25K ohm unbalanced; or 600 ohms balanced.
Mic Input:
150 ohms balanced (internal transformer). Screw Terminals.
Power Requirements:
115VAC, 50/60 Hz, 30 watts.
FEATURES
- Five Operating Modes
- Phase Reversal Capability
- +8 dBm Output
- Monaural Or Stereo

GENERAL DESCRIPTION

The Broadcast Electronics Turntable Preamplifier models BETMS-100 and BETMS-200 have been designed for today's professional studios. Employing the latest integrated circuit techniques, these preamplifiers provide accurate reproduction, outstanding reliability, and versatile operation.

OPERATING MODES — Both the BETMS-100 and BETMS-200 are dual channel units for use with monophonic or stereophonic phono cartridges. Either model operates in five modes:

1. As a single stereo preamplifier with stereo in/stereo out.
2. As a dual monophonic unit with two mono in/two mono out.
3. As a single monophonic preamp with one mono in/one mono out.
4. As a stereo to mono converter with stereo in/one composite mono out.
5. As a dual stereo to mono converter with stereo in/two composite mono out.

This operational versatility means the BETMS preamplifier is never obsolete. It also provides a true composite mono signal mixed from a stereo pick-up required for many records.

HIGH PERFORMANCE STANDARD — The BETMS does not sacrifice performance. Specifications are conservatively rated at the intended operating figures to truly reflect the unit's performance. As an example, the BETMS is rated for +8 dBm output with a 5 millivolt input signal, the output level of today's high compliance stereophonic phono cartridges. Noise, cross talk, and distortion are all specified from this operating condition.

PHASE REVERSAL FEATURE — The right channel phase reversal capability simplifies installation in stereo facilities. In monophonic facilities this feature permits correction of improperly mixed records.

INTEGRATED CIRCUIT DESIGN — The integrated circuitry of the BETMS provides trouble-free operation for the life of the unit. This circuitry also provides stable operation which ensures rated operation without field adjustment.

SPECIFICATIONS
Output Level:
+8 dBm nominal, +16 dBm peak, into 600 ohms. Each output continuously adjustable.

Output Impedance:
BETMS-100: 150 ohms unbalanced, BETMS-200: 600 ohms balanced, 150 ohms balanced (wiring option).

Input Sensitivity:
5mV for +8 dBm output, at 1 kHz, full output.

Input Impedance:
47,000 ohms resistive (50 pF parallel).

Signal-to-Noise:
65 dB or better for 5mV input, +8 dBm output, 1 kHz.

Equivalent Input Noise:
2.8 microvolts (116 dB below output with 600 ohm load).

Channel Separation:
50 dB or better for +8 dBm output, 1 kHz into 600 ohms, with 5mV input.

Frequency Response:
±1 dB of RIAA equalization curve, 50-15,000 Hz.

Distortion:
Less than 0.25% THD at 1 kHz, +8 dBm output into 600 ohms.

Equalization:
Standard NAB/RIAA Disc Reproduction.

Front Panel Controls:
Power on/off, Left Output Level, Right Output Level, Mono/Stereo Mode Switch, Right Channel Phase Reversal Switch.

Rear Panel Connections:
Right input, Left input, Right output, Left output, Ground terminal, 3-wire Power Cord.

AC Power:
100 to 135 VAC, 50/60 Hz, 200 to 270 VAC, 50/60 Hz (optional), 6 watts max.

Dimensions:
9.5" W × 6.5" D × 3" H (24.1×16.5×7.62 cm).

Weight:
3.5 lbs. (1.6 kg).

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETMS-100</td>
<td>827-0100</td>
<td>Monaural/Stereo Equalized Pre-amplifier (less transformer output) with phase reversal feature</td>
</tr>
<tr>
<td>BETMS-200</td>
<td>827-0200</td>
<td>Monaural/Stereo Equalized Pre-amplifier (w/ transformer output) with phase reversal feature</td>
</tr>
<tr>
<td></td>
<td>827-0220</td>
<td>220 VAC/50 Hz Power Conversion Installed</td>
</tr>
</tbody>
</table>
FEATURES

- Digital Switching
- Direct Speed Readout on LED Display
- Slip Cueing (no loss in RPM)
- Back Cueing (no motor drag)
- D.C. Hall Effect Motor
- SPEED: Dual Range Plus or Minus 10%
  Adjustable 15 to 85 RPM
- Instant Start (1/16 turn)
- Remote Start/Stop
- Rim Drive Assures Minimum Rumble, Maximum
  Starting Torque
- 45 RPM Adapter Built Into Precision Platter

GENERAL DESCRIPTION

Broadcast Electronics' Galaxy is the first new turntable designed and manufactured for the professional user in the U.S. since the original QRK outer rim drive table was introduced in 1944.

The Galaxy is supplied with a quiet, heavy-duty D.C. motor, and an electronic speed control to provide for adjustable speed from 15 to 85 RPM. Two 10 turn Vernier pots are employed for plus or minus 10% variation as preset by the independent range control, all located on front of panel.

Direct speed readout in RPM on an LED display is conveniently mounted in the front panel. Slip Cueing is possible with no loss in RPM, and Back Cueing is without the usual motor drag associated with D.C. motors, or direct drive motors.

SPECIFICATIONS

Speed:
Adjustable 15 to 85 RPM.
Color:
Metallic Silver with Blue felt. Other colors available special order.
Line Voltage:
115V - 220V; 50 or 60 Hz. Please specify which.
Start-up Time (1/32 RPM):
1/16th revolution.
Rumble (stereo with respect to NAB standard):
55dB.
Wow:
0.06%.
Flutter:
0.08%.
Drive:
Outer rim with idler.
Platter:
.001" Diameter concentricity. 5 pound aluminum.
Speed Control:
Analog servo control.
Motor:
D.C. Hall effect.
Readout:
Three digit, 1/4" 7 segment LED.
Dimensions:
16 7/8"W × 17 1/4"D.
Depth Below Table Top:
2 1/2".
Weight:
Net 17.12 lb.; Packed, 23 lb.
Cubage:
3.0 cu. ft.
FEATURES

- Three Standard Speeds: 33 1/3, 45, 78
- Instant Start (Full Speed in Less than 1/16th Revolution)
- Rugged Construction, Only 3 Moving Parts
- Stereo Rumble Less Than -48 dB (Exceeds NAB Standards)
- Rim Drive Assures Minimum Rumble, Maximum Starting Torque
- 45 RPM Adapter Built Into Precision Platter
- 5.5 Lb. Precision Platter Reduces Rumble

GENERAL DESCRIPTION

THREE SPEED DESIGN — The ORK 12C is a three speed, rugged, reliable turntable which can come up to speed in a fraction of a second, but can still operate free from rumble, wow and flutter.

Freedom from rumble, wow and flutter are further attained by the use of an acoustic, absorbing phenolic for the motor capstan. This element is turned on its own motor shaft to achieve perfect concentricity, and the idler wheel is specially designed to transmit the motor torque to the inside rim of a perfectly round concentric platter.

Outer rim drive has been demonstrated by ORK in over 34 years of usage as the best method for achieving “instant start” with a minimum of vibration effects. (Center hub drive does not have the mechanical advantage of outer rim drive, it requires a substantial motor with attendant isolation problems.)

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Speeds (RPM):</th>
<th>33 1/3, 45 &amp; 78</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Color:</td>
<td>Beige with felt pad</td>
</tr>
<tr>
<td>Line Voltage:</td>
<td>115 volts, 60 cycles, standard (230V — 50 cycles, optional)</td>
</tr>
<tr>
<td>Start-up Time:</td>
<td>33 1/3 R.P.M.: 1/16th of revolution for Full Speed</td>
</tr>
<tr>
<td>Rumble: (stereo with respect to NAB standard of -35 dB):</td>
<td>48 dB</td>
</tr>
<tr>
<td>Wow and Flutter:</td>
<td>Less than 0.1%</td>
</tr>
<tr>
<td>Speed Regulation:</td>
<td>99.5%</td>
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<tr>
<td>Concentricity of Platter:</td>
<td>+.001&quot;D</td>
</tr>
<tr>
<td>Drive:</td>
<td>Outer rim with idler</td>
</tr>
<tr>
<td>Capstan:</td>
<td>Phenolic, Ground on motor shaft</td>
</tr>
<tr>
<td>Platter:</td>
<td>+.001&quot; Concentricity, 5.5 lb. Aluminum</td>
</tr>
<tr>
<td>Dimensions:</td>
<td>15&quot; W x 15 1/4&quot; D</td>
</tr>
<tr>
<td>Depth Below Frame:</td>
<td>5&quot;</td>
</tr>
<tr>
<td>Weight:</td>
<td>21 1/2 lb. Net, 25 lb. packed</td>
</tr>
<tr>
<td>Cubage:</td>
<td>1.7 cu. ft</td>
</tr>
</tbody>
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STUDIO EQUIPMENT

Model QRK 16 SA Turntable

FEATURES

• Two Speeds: 33⅓, 45
• 16 Inch Platter
• Synchronous Motor
• Speed Change May Be Made While Platter Is Turning
• 45 RPM Adapter Built Into Precision Platter
• 8½ Lb. Precision Platter Virtually Reduces Rumble
• Quality Control, All Parts Precision Machined "In House"

GENERAL DESCRIPTION

TWO SPEED DESIGN — The 16 SA is a two speed (33⅓, 45 RPM) turntable which is instant starting, free from rumble, wow and flutter, and is rugged and reliable for continuous service.

This 16 inch platter model utilizes the 12C design and further freedom from rumble, wow and flutter is attained by the use of an acoustic absorbing phenolic for the motor capstan. The capstan is ground to specifications with the motor turning, insuring perfect concentricity with the motor shaft.

The motor torque is transmitted to the platter's perfectly round, concentric outside rim with a specially designed idler wheel.

Outer rim drive has been demonstrated in over 34 years of usage as the best method for achieving "instant start".

The 16 SA is supplied with a hysteresis synchronous motor for exact speed and minimum rumble.

SPECIFICATIONS

Speeds (RPM):
33⅓, 45.

Standard Color:
Beige with felt pad.

Line Voltage:
115 volts, 60 cycles, standard (230V — 50 cycles, optional).

Start-up Time @ 33⅓ RPM:
1/16th of revolution for Full Speed.

Rumble (stereo with respect to NAB standard of −35 dB):
−48 dB.

With Respect To Weighted Value:
−58 dB.

Wow and Flutter:
Less than 0.1%.

Speed Regulation:
99.5%.

Concentricity of Platter:
−.001"D.

Drive:
Outer rim with idler.

Capstan:
Phenolic, ground on motor shaft.

Platter:
+−.001" Concentricity, 8½ lb. Aluminum.

Dimensions:
20" W × 18¾" D.

Depth Below Frame:
6¼".

Weight:
25½ lb. Net, 29 lb. packed.

Cubage:
3 cu. ft.
FEATURES

- Two Speeds: 33⅓, 45 RPM
- Instant Start (Full Speed In Less Than 1/16th Revolution)
- Synchronous Motor
- Speed Change May Be Made While Platter Is Turning
- 45 RPM Adapter Built Into Precision Platter
- 5.5 Lb. Precision Platter Reduces Rumble
- Speed Indicator Lights
- Rugged Construction, Only 3 Moving Parts
- Stereo Rumble Less Than −52 dB (NAB Standard −35 dB)
- Rim Drive Assures Minimum Rumble, Maximum Starting Torque

GENERAL DESCRIPTION

TWO SPEED DESIGN — The Custom 2 is a two speed (3-3⅓, 45 R.P.M.) turntable which is instant starting, free from rumble, wow and flutter, and is rugged for continuous service.

An outstanding feature of the Custom 2 is its unusually low rumble of −52 dB (NAB standard is −35 dB).

Freedom from rumble, wow and flutter is attained by the use of an acoustic absorbing phenolic for the motor capstan, which is ground to specifications with the motor turning, insuring perfect concentricity with the motor shaft.

The motor torque is transmitted to the platter's perfectly round, concentric outside rim with a specially designed idler wheel.

Outer rim drive has been demonstrated by QRK in over 34 years of usage as the best method for achieving "instant start".

The Custom 2 is supplied with a synchronous motor for exact speed and minimum rumble.

SPECIFICATIONS

Speeds (RPM):
33⅓, 45.

Standard Color:
Beige with felt pad for "slip" Cueing.

Line Voltage:
115 volts, 60 cycles, standard (230V — 50 cycles, optional).

Start-up Time @ 33⅓ R.P.M.:
1/16th of revolution for Full Speed.

Rumble (stereo with respect to NAB standard of −35 dB):
−52 dB.

Wow and Flutter:
Less than 0.1%.

Speed Regulation:
99.5%.

Concentricity of Platter:
· .001"D.

Drive:
Outer rim with idler.

Capstan:
Phenolic, ground on motor shaft.

Platter:
· .001" Concentricity, 5.5 lb. Aluminum.

Dimensions:
15" W × 15¾" D.

Depth Below Frame:
5".

Weight:

Cubage:
1.7 cu. ft.
GENERAL DESCRIPTION
SUPERB STEREO PERFORMANCE — Optimum tracking ability of the tonearm plays a vital role in achieving superior reproduction from the modern stereo record. Balance, low resonance, low friction and tangential relation of stylus to groove are the fundamental considerations that must be answered by the total tonearm design. All these elements are combined in both S-320 and S-260 tonearms which were designed by Rek-O-Kut.

PERFECT BALANCE — Perfect balance is achieved in two simple steps:

(a) STATIC BALANCE - Obtained with cartridge installed and counter-weight positioned to poise the arm horizontally.  (b) TRACKING BALANCE - By dialing the cushioned spring-tension Micropoise Balance Control, the arm is balanced and set for proper stylus pressure.

SPECIFICATIONS
Resonance:  Varies from 9-12 Cycles, depending on Cartridge.
Tracking Error:  Under 1°.
Tracking Force:  1 gram or less.
Static Balance:  Acoustically isolated counter weight.
Dynamic Balance:  Omni-Balance provides perfect Dynamic Balance (Lateral) with any Cartridge.
Vertical Weight Adjustment:  Permits setting tonearm parallel to record surface.

Horizontal Movement:  Bearing made of inner and outer races and 2 rows of hardened steel balls into which shaft of arm fits.
Vertical Movement:  Friction-free movement by suspending arm in Gimbal using a cross-shaft at each end of which are five 1 mm. Chrome Steel Balls.
Cartridge Shell:  Accepts all standard cartridges, secured by twist lock.

FEATURES
• Tubular Construction
• Tracks At Less Than 1 Gram
• Tracking Error Under 1° — Horizontal Movement
• 100% Shielding
• Open Front For Visible Location Of Stylus In Grooves
• Cartridge Shell Accepts All Standard Stereophonic or Monophonic Cartridges
• Meets or Exceeds The Critical Requirements of Ultra-High Compliance Cartridges
• Clean Modern Design, Chrome Finish
• Made In USA; Rek-O-Kut Design
• Manufactured By A Company That Has Produced Quality Tone Arms And Turntables Since 1944
• Vertical Height Adjustment Permits Setting Tone Arm Parallel To Record Surface
• Resonance Below 10 Cycles With Average Pick-Up Virtually Dampered Out
• Separate Balance And Stylus Pressure Adjustment Easily Obtained By Rotation Of The Counter Weight Or Micropoise Knob
• Removable Shell For Ease Of Replacement Of Stylus

PRECISION CONSTRUCTION — Exclusive gimbal assembly incorporates individual double sets of 5 ball, 1 mm. bearings providing the freest vertical and lateral motion found in any tonearm today! The low-friction, silicon-damped horizontal bearing eliminates horizontal oscillation of the arm! True tracking (the maintenance of even force on both channels of the stereo groove) is assured at minimum stylus pressures. Use of lightweight alloys throughout, results in low inertia.

Positive electrical contact assured by four spring-loaded, silver-plated, corrosion-resistant pin terminals in the all aluminum plug-in shell.

Professional Tone Arms
Model QRK S-320, 12-inch
Model QRK S-260, 16-inch
GENERAL DESCRIPTION

STEREO OR MONAURAL — The QRK Alpha equalized preamplifier is designed to be used with both monaural and stereo cartridges.

MAXIMUM "HEAD ROOM" — The QRK Alpha can produce +10 dBm output without distortion or clipping. Thus, it contains a substantial reserve of "Head Room" for the common loud record passages which will permit amplification without degradation of the signal.

RESPONSE WITHIN ±1.0 dB OF NAB CURVE — The Alpha contains a fixed equalization to compensate for the NAB equalization in the original recording. Output of the preamplifier when fed by an NAB disc is essentially flat from 30 cycles to 15,000 cycles.

NOISE INDEPENDENT OF OUTPUT LEVEL — The QRK Alpha permits changing the gain of the amplifier with an attenuator at the output rather than at the input. Thus, the ratio of signal to noise, below +10 dBm output, is independent of output level settings and remains at least 65 dB below the desired signal.

CAN BE USED WITH ALL POPULAR MONO AND STEREO CARTRIDGES — The QRK Alpha has an input impedance of approximately 150 K. By terminating its input terminals with an appropriate terminating resistor, the preamplifier may be driven by any popular cartridge.

SPECIFICATIONS

Output Level (with standard NAB reference input, 12 mv):
- 0 dBm.
- Maximum Output Level (without signal clipping):
  +10 dBm output.
- Maximum Input Level:
  50 mv.
- Gain @ 1 Kc:
  0.8 volt output with 12 mv input.
- Noise, with 12 mv input:
  -65 dB.
- Output Impedance:
  150/600 ohms (balanced).
- Distortion (at all levels to +10 dBm output):
  0.2% Max. (.1% typical).
- Frequency Response with Respect to NAB Curve:
  +1 dB 50Hz.

Maximum Operating Temperature: +60° C.
Power:
105/125 volts, 50/60 cycles, 4 watts.
Size:
9" L x 3" H x 3" W.
Weight:
2 lbs. net, 2 1/2 lbs. gross.
Mounting Position:
Can be mounted in any position.
 FEATURES

- Two Models Available
- Full Time Solid State Attenuators Assure Zero Tracking Error on Stereo
- Digital Switching, No Audio on Front Panel
- Programable Gain Select on All Inputs Allowing Mixing on High and Low Level Inputs on Same Channel
- Electronic Line Protection for RFI
- Switchable Meter — Audition, Program Cue

GENERAL DESCRIPTION

TWO MODELS AVAILABLE — Broadcast Electronics offers a six mixer Omega Six or a ten mixer Omega Ten solid state console. Both consoles provide four inputs for each mixing channel for exceptional operating flexibility.

DIGITAL SWITCHING — The Omega features digital switching; a CMOS analog, DC controlled remote switch eliminates audio wiring on the front panel — No more noisy switches on the front panel. In the Omega you will find the latest technology to select any one of four CMOS analog switches which gate (control) audio signals.

ELECTRONIC ATTENUATION — The electronic linear attenuator utilizes a single IC to control both left and right channels which assures zero tracking error between channels.

CUE — The cue control is located on the program bus selector switch.

- Alpha Numeric Readout on Master Bus
- Programable Muting
- Plug In Amplifiers
- Real Time Digital Clock and Elapse Timer For Production Work
- Remote Start Switching
- Program Master Control in Cabinet
- Balanced Input — Transformer Output

DIGITAL CLOCK — A 12 hour digital clock is located on the front panel, just under the VU meter and can be switched to a 24 hour elapse timer for production work. Real time controls are on the inside of the cabinet. Elapse time controls are on the front panel.

PROGRAM GAIN CONTROL — The master gain controls are inside the cabinet.

MONITOR — The monitor is selectable to program, audition and cue. Two headphone jacks are provided on the front panel.

RFI PROTECTION — The console includes an RFI filter. This is in addition to normal fuses and short circuit protection. The heavy gauge steel cabinet further insures RFI protection.
QRK Omega Series Audio Consoles
Omega Six, 24 Inputs, 6 Mixer
Omega Ten, 40 Inputs, 10 Mixer

REMOTE START — Remote starting of external sources is programable on an internal patch bay to any input switch. Remote start is activated by the program on audition bus switch. Three relays are provided with provisions for expansion.

PLUG-IN AMPLIFIERS — All amplifiers are plug-in. The monitor amplifier is 10 watts, the cue amplifier and headphone amplifier are both 6 watts.

REMOTE LINES — Provision for four remote lines on two sets of switches are located on the top right front panel. Remote talk back and listening is through the cue circuit.

INPUTS — Four inputs to each fader. Each input switch has an LED indicator to reduce operator error.

MUTING — Three muting relays are programable on an internal patch panel. Extra contacts are provided for the ‘on the air’ lights.

SPECIFICATIONS

INPUTS:
4 per channel, all balanced, gain is programable for either low level or high level on Channel 1 and 4. (Balanced 150/250 ohm).
Low Level:
- 50 dbm normal, -30 dbm maximum.
High Level:
- 10 dbm normal, +10 dbm maximum (adjustable).

OUTPUTS:
Program:
600 ohm transformer “0” VU
Stereo:
- 8 ohm normal, ±18 dbm maximum.
Mono:
600 ohm transformer +8 dbm.
Audition:
600 ohm transformer “0” VU +8 dbm normal.
Monitor:
8 ohm unbalanced, 10 watts. Muted and unmuted outputs.

Cue:
8 ohm unbalanced, 6 watts. Cue speaker - 2 headphones.

RESPONSE:
Program and Audition:
20 Hz to 20000 Hz ±2 db; 30 Hz to 20000 Hz +1 db.
Cue and Monitor:
10 watts 20 Hz to 20000 Hz ±1 db.

HEADSET:
20 Hz to 20000 Hz ±1 db.

CROSSTALK:
-68 db @ 1KHz between audition and program.

DISTORTION:
Program and Audition:
30 Hz to 20000 Hz 0.12% with +8 dbm output, ±50 dbm input.

SIGNAL TO NOISE:
Program and Audition:
Low level -66 db @ +8 db output (referenced to -50 dbm input).

High level -70 db @ +18 dbm output (referenced to -10 dbm input).

TALKBACK:
Facilities to talk back to 4 remote lines.

MUTING:
One relay, internally selectable for control room cue and monitor. Two relays, internally selectable for two studios. Console pre-wired for total of six relays.

REMOTE START:
Three relays are provided and are programable on an internal patch panel. Provision for expansion is provided.

SIZE:
Width 37½”, Depth 19¼”, Height: front 3”, back 11¼”.

WEIGHT:
90 lbs.; packed 110 lbs.

CUBAGE:
3.6 cu. ft.; packed 22 cu. ft.

POWER:
117/220V AC 50/60 Hz. selectable.
SHURE TONE ARMS AND CARTRIDGES

Model M232/M236. High quality, rugged, simple arm for tracking at 1 1/2 grams or higher. Full range of adjustments for static and dynamic balance, cartridge overhang, arm height, etc. Direct reading tracking force scale. Twist-to-lock head accommodates any stereo or mono cartridge. A real "workhorse" that takes abuse. Simple mounting through a single hole from the top of the table; plug-in cable. Model M232 is for 12" turntables: Model M236 for 16" turntables. Weight: 232.1 lb.; 236.1 lb.

AUDIO-TECHNICA ATP SERIES

The ATP-12T and ATP-16T turntable tone arms have many outstanding features: Fit wide range of turntable heights and base thicknesses; Sealed horizontal and vertical ball bearing pivots; Accurate, built-in VTF gauge, no accessory gauge needed; Precise equilateral leveling base; Decoupled counterweight shaft for arm resonance control; Low resistance, anti-corrosion, gold-plated connectors throughout; Simplified installation...plug-in head shell with color-coded wiring, 4 cartridge mounting positions. Handy arm lift and tone arm rest provided; Pre-wired, color-coded, low capacity cable with ground lug; Set screws provided to lock all critical adjustments, if desired.

MICRO-TRAK TONE ARMS

The Micro-Trak 303 and 306 tone arms provide the low mass necessary for high compliance performance and also provide the strength necessary for 24 hour a day, on-line operation.

Features such as the impregnated wood body, laminated for high strength, the plug-in memory balancing head, sapphire jewel bearings for virtually frictionless vertical rotation, the fluid anti-skate mechanism, and the overall rugged simplicity of design make the models 303 and 306 an excellent choice in tone arms. Weight: 303, 1 lb.; 306, 1.25 lb.

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
</tr>
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<tbody>
<tr>
<td>M232</td>
<td>821-4232</td>
<td>SHURE MODEL M232, 12&quot; tone arm</td>
</tr>
<tr>
<td>M236</td>
<td>821-4236</td>
<td>SHURE MODEL M236, 16&quot; tone arm</td>
</tr>
<tr>
<td>SC35C</td>
<td>821-4350</td>
<td>SHURE SC35C, Professional Broadcast Cartridge</td>
</tr>
<tr>
<td>SS35C</td>
<td>821-4352</td>
<td>SHURE SS35C, Spherical Stylus for SC35C</td>
</tr>
<tr>
<td>3009-III</td>
<td>821-4036</td>
<td>SHURE SME Tone Arm, 3009 Series III</td>
</tr>
<tr>
<td>V15-IV</td>
<td>821-4037</td>
<td>SHURE CARTRIDGE for SME Tone Arm</td>
</tr>
<tr>
<td>V15-IV</td>
<td>821-4038</td>
<td>SHURE Replacement Stylus for V15-IV Cartridge</td>
</tr>
<tr>
<td>M44-7</td>
<td>821-4470</td>
<td>SHURE M44-7, Stereo Broadcast Cartridge with N44-7 Spherical .7 mil stylus</td>
</tr>
<tr>
<td>N44-7</td>
<td>821-4471</td>
<td>SHURE N44-7, Replacement Stylus for M44-7</td>
</tr>
<tr>
<td>N44-3</td>
<td>821-4472</td>
<td>SHURE N44-3, Replacement 78 RPM Stylus for M44 Cartridge</td>
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</tbody>
</table>

STANTON TURNTABLE CARTRIDGES

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>500AA</td>
<td>821-5002</td>
<td>Stanton Cartridge, .5 mil stylus</td>
</tr>
<tr>
<td>500AL</td>
<td>821-5000</td>
<td>Stanton Cartridge, .7 mil (extra heavy duty) stylus</td>
</tr>
<tr>
<td>681A</td>
<td>821-6810</td>
<td>Stanton Cartridge, Calibration standard, .7 mil stylus</td>
</tr>
<tr>
<td>681EE</td>
<td>821-6812</td>
<td>Stanton Cartridge, 2 x .7 mil elliptical stylus</td>
</tr>
<tr>
<td>DS107A</td>
<td>821-5003</td>
<td>Stylus for 500A Cartridge</td>
</tr>
<tr>
<td>DS105AA</td>
<td>821-5004</td>
<td>Stylus for 500AA Cartridge</td>
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<tr>
<td>DS107AL</td>
<td>821-5001</td>
<td>Stylus for 500AL Cartridge</td>
</tr>
<tr>
<td>D6807A</td>
<td>821-6811</td>
<td>Stylus for 681A Cartridge</td>
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<tr>
<td>D6800EE</td>
<td>821-6813</td>
<td>Stylus for 681EE Cartridge</td>
</tr>
<tr>
<td>D5127</td>
<td>821-6815</td>
<td>78 RPM Stylus for 500 Series Cartridge</td>
</tr>
<tr>
<td>D6927</td>
<td>821-6817</td>
<td>78 RPM Stylus for 600 Series Cartridge</td>
</tr>
</tbody>
</table>

NOTE: Other models of tone arms, turntable cartridges and accessories available.
Control Room Furniture

FEATURES

- Modular Design For Complete Flexibility
- Single And Dual Turntable Cabinets
- Desk Top Section Mounts On Cabinets
  Or Metal Legs

DESCRIPTION

A new look is offered in this modular control room furniture. This modular design provides a unique solution to the problem of providing functional workspace in the broadcast studio. Turntables, tape cartridge machines, cueing, and switching control panels may all be located within arms reach of the main control board. This "human engineered" system provides almost ultimate flexibility in a group of off the shelf components used to make your custom studio installations.

Durable, color keyed, suede formica covered side panels (in a summer pecan wood grain finish) and tops (in French Blue) create an exciting attractiveness. Formica, with its inherent resistance to damage from coffee stains, cigarette burns, and the like insures that your furniture will maintain its initial beauty for many years. (Special colors available at extra cost.)

OUTLINE DIMENSIONS

SPECIFICATIONS

Dual Turntable Cabinet
Size:
41-1/4" wide × 22" deep × 29" high
Finish:
"Summer Pecan" wood grain formica on vertical surfaces, French Blue formica on cabinet top. (Special colors available on order at extra cost.)
Construction:
Panels fabricated from high density particle board ¼" thick (front and rear closure panels ⅛" thick) with formica press bonded using urea type heat activated adhesive.
Panel Space:
Two 17-½" high panel openings front and rear to accommodate standard 19" E.I.A. style equipment panels on steel mounting rails.

Single Turntable Cabinet
Size:
22" wide × 22" deep × 29" high
Finish:
"Summer Pecan" wood grain formica on vertical surfaces, French Blue formica on cabinet top. (Special colors available on order at extra cost.)
Construction:
Panels fabricated from high density particle board ¼" thick (front and rear closure panels ⅛" thick) with formica press bonded using urea type heat activated adhesive.

Weight:
117 lbs. includes complete cabinet with wood grained closure panels for front and rear openings.

Single Turntable Cabinet
Size:
22" wide × 22" deep × 29" high
Finish:
"Summer Pecan" wood grain formica on vertical surfaces, French Blue formica on cabinet top. (Special colors available on order at extra cost.)
Construction:
Panels fabricated from high density particle board ¼" thick (front and rear closure panels ⅛" thick) with formica press bonded using urea type heat activated adhesive.

Weight:
66 lbs. includes complete cabinet with wood grained closure panels for front and rear openings.

Desk Top
Size:
80" wide × 24" deep × 1-½" high; 100 lbs.
Finish:
French Blue formica
Mounting:
Mounts on top of single or double bay cabinets or separate bright metal legs.
Height Mounted:
(On cabinets or legs) 32"

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>833-0001</td>
<td>Single Turntable Floor Cabinet (22&quot;W × 22&quot;D × 29&quot;H)</td>
</tr>
<tr>
<td>833-0002</td>
<td>Dual Section Floor Cabinet (42&quot;W × 22&quot;D × 29&quot;H)</td>
</tr>
<tr>
<td>833-0003</td>
<td>Console Desk Top (80&quot;W × 24&quot;D × 1½&quot;H)</td>
</tr>
<tr>
<td>833-0101</td>
<td>Leg, chrome, tapered, adjustable to 32&quot;. (4 req'd. for free-standing console section)</td>
</tr>
<tr>
<td>833-0103</td>
<td>Spacer block to mount desk top to floor cabinet, includes hardware.</td>
</tr>
</tbody>
</table>

Note: Other models of control room furniture available.
Quartzmatic Studio Clock

FEATURES
- Large 12" diameter face (glass lens protected) with 1-1/2" numerals, red sweep second hand
- Precision accuracy ± 1 minute in one year
- Powered by 2" batteries for 1 year battery life
- White or tan face with charcoal numerals in woodhue case 2-7/8" deep x 14-1/2" diameter

WARNING LIGHT
- Horizontal or vertical formats
- Unique design—readily adaptable to any office/studio decor

The STUDIO WARNING LIGHT is designed to mount to a flush wall or ceiling surface in a vertical or horizontal plane. The silkscreened globe housing fastens to a steel mounting plate. Ideally suited for control rooms, studios and above restricted entrances to live studios. Supplied complete with 25 watt red bulb and "Attention-Getter" flasher. Rated at 120V, 100 watts; UL approved. Available in Spanish, Portuguese or other languages. Also, special lettering available.

Digital Cue Clock
- The Cue Clock is a digital timing unit with a capacity of 99 minutes and 59 seconds count down or count to time. Thumbwheel switches let you select the preset time while a separate selector indicates count up or count down.
- Four push-button selectable inputs let you choose the source of the remote signal used to start the clock. Once started, the digital timer displays the count down or to the preset time. When the CUE light illuminates, a signal is sent to the 18 pin connector on the rear panel for use as a triggering signal to any external circuit function.
- The Cue Clock's versatility makes it an ideal tool for many time related tasks including record intro's for Disc Jockeys, time delay or delayed start of program material

SPECIFICATIONS
- Max. Time: 99 min. 59 sec.
- Freq. Std.: 120 VAC/60 Hz Line
- Controls: Count Up/Count Down Start Stop Set Remote Start Selector Thumbwheel Sw. Array to Program Start/Stop Info.
- Readouts: Four Digit Readouts for Time. GREEN LED for SET Indication RED LED for CUE indications.
- Outputs: 1 Hz Clock Pulse 60 Hz Clock Pulse Equipment Start Signal Equipment Stop Signal + 18 VDC + 5 VDC GRD Remote "SET" Indicator Signal Remote "CUE" Indicator Signal
- Timer Start Input Levels: Accepts up to four "START" signals independently. These can be from 5V AC/DC to 120V AC/DC with the proper attenuator (2 Attenuator for 120 VAC supplied).
- Power Source: 120 Volts, 60 Hz, 10 Watts.
- Circuitry: Solid State NO RELAYS
- Size: 9-3/4" Deep x 4-1/4" High x 10" Wide
- Weight: 6 lb.

ORDERING INFORMATION
- MODEL STOCK NO. DESCRIPTION
  - BECL-100 835-0100 Quartzmatic, white face
  - BECL-200 835-0100A Quartzmatic, tan face

STOCK NO. DESCRIPTION
- 835-0001 ON-AIR Light, Vertical Format
- 835-0002 ON-AIR Light, Horizontal Format
- 835-0003 AUDITION Light, Vertical Format
- 835-0004 AUDITION Light, Horizontal Format
- 835-0005 En Aire Light, Vertical Format
- 835-0006 En Aire Light, Horizontal Format
- 835-0007 Rehearsal Light, Vertical Format
- 835-0008 Rehearsal Light, Horizontal Format
- 835-0009 Record Light, Vertical Format
- 835-0010 Record Light, Horizontal Format

Clocks, Warning Lights
ELECTRO-VOICE MICROPHONES


DO54: Excellent professional recording, broadcast, and sound reinforcement — including band, orchestra, piano, vocal music, and speech with outstanding uniformity between microphones of the same model. Frequency response: 50 to 15,000 Hz. Dynamic element: -58 dB output. Weight: 6.5 oz. (184 g).


NOTE: Other Electro-voice models available.

SHURE MICROPHONES

SM7: The SM7 features a wide-range, very smooth frequency response, with graphic response-tailoring switches that allow the user to select four different microphone response curves: (1) extremely flat response; (2) low-frequency roll-off; (3) mid-frequency boost; and (4) a combination of both low-frequency roll-off and mid-frequency boost. Weight: 1 lb., 11 oz. (764 g).

SM61: Combines outstanding noise isolation with a small, lightweight, handsome design especially for hand held applications in which mechanical shock, wind and cable noises must be controlled. A built-in shock mount reduces cable handling and mechanically induced noise to a negligible minimum. Model A57D Swivel Adapter included. Frequency Response: 50 to 14,000 Hz. Weight: 5.6 oz. (159 g).

SM81: The Shure SM81 cardioid condenser microphone is exceptionally well-suited to the critical requirements of professional broadcast, recording and motion picture usage and is highly reliable for field use. Features include wide range (20Hz to 20kHz Flat Frequency Response); Precise cardioid polar pattern; Low noise level (16dBA); ultra-low distortion over the entire audio spectrum; and rugged, heavy-wall steel construction. Weight: 8 oz. (230 g).

NOTE: Other Shure models available.
MICROPHONE STANDS

ATLAS MODEL SB-100W. Mobile boom stand. Boom length 110". Adjustable vertical height from 61.5" to 92.5". Rugged cast steel base is equipped with swivel casters and 4" diameter wheels. Cable hangers provided for guiding mike cable. Weight: 47 lbs.


ATLAS MODEL SB-36W. Same as Model SB-36 but with rubber casters for mobility. Weight: 40 lbs.

ATLAS FLEXIBLE GOOSENECK. Attach to any Atlas stand or adaptor. ¾" - 27 male and female threads. Chrome finish. GN-6, 6" long. GN-13, 13" long. GN-19, 19" long.

ATLAS MODEL MS-4. Special height stand, adjusts from standard to extra low heights for seated performers or children. Height: 25"-65". Weight: 11 lbs.

LUXO MIKE ARMS

MODEL LM-1. For mikes weighing up to 1 lb. Two extension arms for 41" length. Weight: 2.5 lb.

MODEL LM-3. For mikes weighing up to 1 lb. Three extension arms for 56" length. Weight: 2.5 lb.

SHURE MICROPHONE MIXERS

M67. For recording, studio or remote broadcasting amplification. Provides 4 balanced mike inputs, one line input. Headphone monitor jack, illuminated VU. AC or battery power. Noiseless, automatic switchover to battery if AC fails. Frequency response: 20 - 20,000 Hz ± 2 dB. Noise: -125 dBV. Distortion: less than 1%. Weight: 4 lbs., 7 oz.

M68 SERIES. Separate volume controls for each input, plus a master control for gain of all inputs. Frequency response: 30 - 20,000 Hz. Noise: -70 dB.

MODEL M68. Male Cannon XLR-3-14 type input connectors.

MODEL M68P. Phone jack microphone inputs for high impedance microphones.

MODEL M68FC. Female Cannon XLR-3-13 type input connections.

MODEL M68RM. Provides adjustable reverberation to simulate large concert hall, etc.

SHURE DESK STANDS

MODEL S33B MODERN DESK STAND. Black finish. For use with Microphone Models 330, 415, 430, 533, 545, 546, 548, 556S, 566, 571, 576, 578, 579, 580, 58, and 588. Weight: 2.5 lb.

MODEL S37A MODERN DESK STAND. Non-reflective, textured gray finish. For use with all microphones with swivel connector assemblies. Weight: 1.5 lb.


MODEL S39A VIBRATION-ISOLATION STAND. For all applications where vibration is a problem. Fits all Shure microphones. Weight: 2.125 lb.

ADC AUDIO CONNECTORS

PM3S. Male Plug 3-Pin Connector with small grommet. Accepts up to .220" diameter cable.

PM3 (XLR-3-11C). Male Plug 3-Pin Connector with standard grommet. Accepts .220" to .270" diameter cable.

PF3S. Female Plug Connector with small grommet. Accepts up to .220" diameter cable. This plug features three contacts and a positive latch lock.

PF3 (XLR-3-12C). Female Plug with standard grommet. Accepts .220" to .270" diameter cable. This plug features three contacts and a positive latch lock.

RM3 (XLR-3-32). Receptacle Shell, Male 3-Pin Connector, Two mounting holes accept #4 screws. (Mounting hardware not supplied.)

CM3 (XLR-3-14). Receptacle Shell, Male 3-Pin Connector. Three mounting holes accept #4 screws. (Mounting hardware not supplied.)

RF3 (XLR-3-31). Receptacle Shell, Female Connector. This receptacle features three contacts and a positive latch lock. Two mounting holes accept #4 screws. (Mounting hardware not supplied.)

CF3 (XLR-3-13). Receptacle Shell, Female Connector. Features three contacts and a positive latch lock. Three mounting holes accept #4 screws. (Mounting hardware not supplied.)
POWER AMPLIFIERS


MODEL D-75 STEREO POWER AMPLIFIER — Extremely compact: fits into only 1½" of rack space. Amplifier is vulnerable to short or open circuits, mismatch and RF energy. Power Output: 35 Watts RMS per channel at 8 ohms. Frequency Response: ±0.1 dB, 20 - 20,000 Hz at 1 Watt into 8 ohms (stereo). Harmonic Distortion: Below 0.05%. 20 - 20,000 Hz. Cabinet optional. Packed weight: 15 lb. Power source: 100-240V, 50-400 Hz.

ESE DIGITAL TIMERS

ES 142/144 DIGITAL CLOCK/THERMOMETERS — ES 142 (12 hr.) and ES 144 (24 hr.) are MOS, solid state digital clock/thermometers. Display simultaneously: 6 digits of time (hours, minutes, seconds) and 3 digits of temperature ( -50°F to +150°F or -45°C to +66°C) in planar, gas discharge displays. 55" high. Attractive aluminum case with top and sides simulated walnut. Temperature sensor on 25 ft. cable included; attaches to rear-mounted connector. Dimensions: 2¾"H × 10"W × 6"D. Electrical: 12 W max. 117 VAC, 60 Hz. (220 V, 50 Hz optional.) Weight: 3.5 Lb.

ES 302 TIMER — Elapsed time indicator and can count both down and up. The ES 302 user can preset times with lever-wheel type switches. Dimensions: ES 302: 2½"H × 10"W × 6"D. Case: Etched anodized aluminum w/simulated walnut sides and top. Electrical: 117 VAC, 60 Hz. 7 W max. (220 V, 50 Hz optional) Weight: 3.5 lb.

ES 510 SIXTY MINUTE TIMER — A four digit, sixty minute timer (59 - 59) with start, stop and reset controls (single pole, momentary push-button). Runs continuously unless stopped or reset. If stopped, display will hold time reading and when restarted will continue with next count from last displayed figure. Reset returns display to all zeros. Can reset while running or stopped. Dimensions: 2-½"H × 6"W × 5-½"D. Case: Etched Aluminum. Electrical: 117 VAC, 60 Hz, 10 W max. (220 V, 50 Hz optional.) Weight: 3.5 lb.
MX-5050-B. This compact 1 1/4", two channel recorder has all the proven features of the pace-setting MX-5050, such as front adjustable bias and record EQ, selective reproduce, edit and cue, test oscillator, plus: TTL/IC logic for noise free punch-in and punch-out; Three speeds in field selectable speed pairs of 15/7½ or 7½/3½ ips; 24 dBm headroom, 28 dBm output; DC capstan servo standard, with ± 7% speed control in record and reproduce; Peak reading LED's plus standard VU meter; and return to zero memory feature for production use.

All input and output connectors are three-pin XLR, Wow and Flutter: (NAB weighted) less than 0.06% at 7½ ips. Frequency response: (overall record/playback) ± 2 dB. 30Hz to 23kHz measured at 15 ips at 0VU. + 4 dBm. Distortion: less than 0.7% at 1000Hz at 250 nWb/m. 117/220/240 volts, 50/60Hz. Output: + 28 dBm at 600 ohms balanced. Vinyl covered wooden cabinet standard. Portable case, floor console, or rack mounting adapter optional. Weight: 53 lbs. (cabinet), 62 lbs. (portable case). Specifications at other tape speeds available on request.

MX-5050-BF. This recorder/reproducer is the same basic machine as the Model MX-5050-B but in a one-channel full track recorder/reproducer configuration with two-channel half-track reproduce capability.

MX-5050-QXD. A quarter-inch four-channel recorder with full professional performance and production features. Perfect for the small broadcast station, studio, educational or AV facility, and for serious audiophiles. The MX-5050-QXD features: exceptional signal-to-noise and crosstalk; front panel edit and adjustable cue; punch-in and punch-out record without clicks or pops; motion sensing control logic to prevent tape damage, 600 ohm output, variable or fixed level; plug-in boards and head assembly; test and cue oscillator; 15 and 7½ ips tape speeds.

The transport and electronics are contained in separate cases to provide maximum versatility in mounting and installation. Vinyl covered wood cases are standard. Optional front and rear covers, rack mounting adaptors and a floor console with wheels are available as options. Weight: transport: 64 lbs; electronics: 33 lbs. (See Mark II Series for 1/2 inch, 4 channel machine.)

MX-5050-8D. This compact eight channel, half-inch recorder brings the benefits of multi-channel recording to small studios at an affordable price. Separate transport and electronics provide maximum installation flexibility. 15 and 7½ ips tape speeds. Variable speed (- 7%) DC capstan servo standard. Selective reproduce on all eight channels. Vinyl covered wood case standard. Rack mounting kit and floor console optional.

OTHER OTARI TAPE RECORDERS AND ACCESSORIES AVAILABLE.

Mark II Series. The Mark II series of compact professional recorders includes two versions — Mark II - 2, two channel, quarter-inch tape; and Mark II - 4, four channel, half-inch tape for production. In addition, the two channel version has an extra reproduce head for quarter-track stereo tapes. The main features of the Mark II series include: plug-in head assemblies; 7½ and 15 ips tape speeds; separate transport and electronics for convenient table top, console or floor console mounting; DC servo standard with ± 7% pitch control. The Mark II-2 is supplied as table top console; Mark II-4 is supplied in two vinyl-Covered wood cases. Full range of options and accessories available.

ORDERING INFORMATION

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<th>STOCK NO.</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>MX-5050-BF</td>
<td>822-5050</td>
<td>Mono one-channel full-track recorder / reproducer with two-channel half-track reproduce capability. DC capstan servo. Three speeds in speed pairs of 15/7½, or 7½/3½ ips, field selectable. 600 ohm balanced output. Vinyl covered wood cabinet.</td>
</tr>
<tr>
<td>MX-5050-B</td>
<td>822-5056</td>
<td>Stereo two-channel half-track recorder / reproducer with quarter-track reproduce capability. DC capstan servo. Three speeds in speed pairs of 15/7½, or 7½/3½ ips, field selectable. 600 ohm balanced output. Vinyl covered wood cabinet.</td>
</tr>
<tr>
<td>MX-5050-QXD</td>
<td>822-5051</td>
<td>Four-channel, quarter-track, quarter-inch tape recorder / reproducer. 15/7½ ips. DC capstan-servo system. 600 ohm unbalanced output. Two black vinyl-covered wood cabinets.</td>
</tr>
<tr>
<td>MX-5050-8D</td>
<td>822-5053</td>
<td>Eight-channel, half-inch tape recorder / reproducer. 15/7½ ips. DC capstan-servo system. 600 ohm balanced output. Two vinyl-covered wood cabinets.</td>
</tr>
<tr>
<td>Mark II-2</td>
<td>822-5057</td>
<td>Two-channel, quarter-inch tape recorder / reproducer. 15/7½ ips. DC capstan-servo system. 600 ohm balanced output. Table top console.</td>
</tr>
<tr>
<td>Mark II-4</td>
<td>822-5058</td>
<td>Four-channel, half-inch tape recorder / reproducer. 15/7½ ips. DC capstan-servo system. 600 ohm balanced output. Two vinyl-covered wood cabinets.</td>
</tr>
<tr>
<td>ARS-1000-DC</td>
<td>822-5059</td>
<td>Two speed (7½/3½ ips), two-channel reproducer. 25 Hz sensor. Variable time delay, 19-inch rack mounting. For automation systems and other reproduce-only applications.</td>
</tr>
<tr>
<td>DP-4050-OCF</td>
<td>822-5060</td>
<td>8: 1 in-cassette duplicator. Open reel master (for 7½ or 3½ ips original) with six cassette slaves.</td>
</tr>
<tr>
<td>DP-4050-CCF</td>
<td>822-5060</td>
<td>8: 1 in-cassette duplicator with cassette master and five slaves.</td>
</tr>
</tbody>
</table>
REVOX MODEL B 77

The Revox B 77 is built to provide superb performance tomorrow as well as today—and for many years to come. The new B 77 incorporates a number of new features, including full logic tape transport control, coupled with tape-motion sensing, which enables the user to select any transport function without fear of tape damage. All operating modes, including pause, are actuated by feather-touch, contactless Triac switches. In addition, the electronics have been completely redesigned to give increased headroom (18 dB above 0 VU) to accommodate today’s new generation of tapes, with a margin to allow for even hotter tapes yet to come.

The B 77 also features new larger VU meters with LED peak overload indicators, high-torque spooling motors, toggle switches for record pre-selection, and a new erase head for a full 75 dB of erasure. For the broadcaster or serious audiophile, the B 77 offers easier access for exact editing of the tape, plus a built-in splicing block with self-sharpening cutter. The optional remote control duplicates all front-panel functions, with the added feature of a locking pause button. A variable speed control unit is also available as a user plug-in option, featuring both coarse and fine speed adjustments.

SPECIFICATIONS

Tape transport mechanism: 3-motor tape drive; 2 AC driven spooling motors; 1 AC driven capstan motor, electronically regulated.

Tape speeds: 3.75 ips and 7.5 ips, electronic change-over.

Wow and flutter: At 7.5 ips less than 0.08%.

Frequency response (measured via tape, at 0 VU): at 3.75 ips: 30 Hz...16 kHz +2/-3 dB; at 7.5 ips: 50 Hz...15 kHz +1.5 dB.

Signal to noise ratio: Half track at 3.75 ips better than 63 dB; at 7.5 ips better than 66 dB.

Crosstalk (at 1000 Hz): Stereophonic - better than 45 dB.

Weight: 37 lb.

UHER TAPE RECORDERS

UHER 4000 Report IC (Mono) — This is the world-famous battery-operated, portable hi-fi open-reel tape recorder (DIN 45 500), of proven excellence even under extremely adverse operating conditions. Has rugged, reliable construction. Frequency response 35-20,000 Hz. Wow and flutter 0.2%. The machine is equipped with longlife Recovac tape head (triple life), 2-track mono operation. Compact housing of diecast aluminum. Metal knob and aluminum piano-key controls. 4 tape speeds. Tape tension regulation, IC power stage, index counter. Power supply may be from A. C. mains as well as from single-cell, car or rechargeable battery. Weight: 8 lb. Carrying case for mobile use available.

UHER 4200 Report Stereo IC — With separate level controls and peak-reading record level meter for each channel, this is the perfect portable machine for high-quality stereo recording. Its performance also makes it ideal to add to hi-fi sound systems. The UHER 4200 Report is equipped for half-track operation.

Enthusiastic film-makers will be interested to learn that this machine may also be used for film dubbing. Weight: 8.4 lb. Carrying case for mobile use available.

ORDERING INFORMATION

MODEL  STOCK NO.  DESCRIPTION
14102  822-4102  Revox B 77 10" Recorder/Playback. 3.75-7.5 ips.
14302  822-4302  Same as Model 14102, except in metal cage for rack mount.
14106  822-4106  Revox B 77 10" recorder/playback. 7 1/2 - 15 IPS.
14306  822-4306  Same as Model 14106, except in metal cage for rack mount.
14143  822-4143  Revox B 77 10 1/2" recorder/playback, 7 1/2 - 15 IPS.
14342  822-4342  Same as Model 14143 except in metal cage for rack mount.
14112  822-4112  Revox B 77 10 1/2" recorder/playback, 3.75 - 7.5 IPS.
14312  822-4312  Same as Model 14112 except in metal cage for rack mount.

NOTE: Other models of tape recorders available.

ORDERING INFORMATION

MODEL  DESCRIPTION
4000 IC  UHER Report 4000 IC, 2-track mon.
4200 IC  UHER Report 4200 IC, half-track stereo.

NOTE: Other models of tape recorders available.
Proof of Performance Equipment

AT-51 AUDIO TEST SYSTEM — Consists of AG-51 Audio Generator and AA-51 Audio Analyzer. Measures harmonic distortion, intermodulation distortion, voltage, dB, signal + noise/noise ratio, wow and flutter, stereo phasing, and differential gain in stereo channels. Features transformerless stereo outputs (balanced or unbalanced), source resistance of 150 or 600 ohms, automatic signal leveling, precision step attenuators, RFI shielding, automatic "set level" and "balance" circuits, scope display of distortion products and output level monitor. Weight: 24 lb. Power source: 117 V (230 V optional), 50 or 60 Hz as specified.

MODEL 210 AUDIO OSCILLATOR — A source for low distortion signals from 10 to 100,000 cycles. Frequency response is ±1 dB over entire range when connected to 600 ohm load, referenced at 5 KC. Other specifications are: calibration: ±2% over entire range; power output: up to 10 V into 600 ohms; waveform distortion: less than .2% at 5 volts output from 50-20,000 ips. Weight: 11 lbs.

MODEL 410 DISTORTION METER — Measures audio distortion, noise level, audio gain or loss in dB and ac voltages. Distortion ranges provided are: 1% full scale, 3%, 10%, 30% and 100%. Calibration is in 1 dB steps from 0 dB to -15 dB. Attenuator provides additional ranges from -60 dB to +50 dB in 10 dB steps. Weight: 12 lbs.

MODEL 1760 AM/FM AUDIO STEP GENERATOR — Nine precise crystal-controlled frequencies instantly available for use in proof of performance measurements. Frequencies may be stepped manually or automatically, making possible one-man line checks. Features very low distortion, precision output attenuator and front panel output jack. The Model 1760 AM/FM provides frequencies extending to 15 kHz for FM checks, and may be limited to 7.5 kHz for AM checks. Weight: 10 lb. Power source: 117 V, 60 Hz (220 V, 50 Hz optional).

TWO TONE EBS GENERATOR — Provides two tone attenuation signals (853 Hz and 960 Hz) for the Emergency Broadcast System. Tones are generated by digital division and filtering of two highly stable crystal oscillators. The 960 Hz tone is divided and gated to give an accurate 22.5 second timing interval. Accuracy is better than 0.5 Hz and distortion is less than 5%. Features include compact 1-3/4" panel height, positive action reed relay switching, heavy rf shielding for use at transmitter sites, and individual level controls. Available units: a. Two-tone encoder; b. Matching decoder; c. Encoder and decoder. Weight: 10 lb. Power source: 117 V, 60 Hz (220 V, 50 Hz optional).

MODEL 65-390 WOW & FLUTTER METER — This compact, lightweight, solid-state portable test instrument is indispensable for accurately measuring the wow and flutter components in all types of recording and playback devices, such as cartridge, reel-to-reel and cassette recorders, VTR's, and turntables. Single meter readout indicates the deviation from true speed of a device within a 5% range by the use of a precision zero-center drift meter. Features an internal 3,150 Hz reference oscillator, self-contained switchable weighting filter and a standard phone output jack for oscilloscope connection. All metal interlocked construction assures immunity to EMI and RFI. Weight: 4 lb. Power source: 110 V or 220 V, 50 or 60 Hz.
Martí STL Equipment

STL-8F Transmitter — The Martí STL-8F, one of a series of two models designed to meet the exacting requirements of aural links, is ideal for the FM broadcaster requiring either mono or stereo operation. All solid-state, the unit has a direct FM modulator, a field-proven varactor final, solid-state oven and high-accuracy crystals providing a frequency stability of 0.0005%. The 8-watt system operates in the 942- to 960-MHz range. Automatic switchover circuits are provided for a standby transmitter and RF sensing is built in for “out of status” alarm indication. Two of these units may easily be strapped together for stereo operation. The transmitter is available in either vertical (‘½-rack width) or horizontal (full rack width) configurations. Weight: Vertical, 15.5 lb.; Horizontal, 20 lb.

R200/950F Receiver — The Martí R200/950 series of receivers is the companion line for the STL-8 transmitters. The R200/950F model, designed for FM reception, is all solid-state with plug-in modular construction. A solid-state oven and high accuracy crystal provides frequency stability of 0.0005%. Automatic switchover circuitry for a standby receiver is provided. Audio output is 600 ohms balanced with a maximum level of 18 dB mW. Multiplex output provides for subcarrier and/or remote control signals. Like the transmitters, both vertical and horizontal configurations are available. Weight: Vertical, 9 lb.; Horizontal, 16 lb.

NOTE: Other Martí equipment available. See price list for pricing information.

Moseley STL Equipment

PCL-505 and PCL-505/C — This STL provides a high-quality audio channel between a broadcast studio and a remote transmitter site. Alternatively, it provides for studio-to-studio, intercity, network, and similar program audio feeds. Design is for continuous service in accordance with FCC requirements and licensing in most other countries. True direct FM offers superior sound and flat frequency response over a wider range with low distortion. Frequency range is 148 to 174 MHz, 215 to 240 MHz, 300 to 330 MHz, 450 to 470 MHz, and 890 to 960 MHz. Modulation capability is one program and two subcarrier channels.

PCL-101 System — This transmitter and companion receiver are designed to meet requirements of international AM broadcasting. The transmitter employs direct FM and maximum power output is 15 watts. It is available in 150, 220, 300, 450 or 950 MHz. Other frequencies in the 148- to 470-MHz spectrum are available on special order. For use in the United States, the PCL-101 is available for operation in the 950-MHz band only.

Moseley Remote Pickup Equipment

RPT-40 Transmitter — The Martí RPT-40 Remote Pickup Transmitter is designed for continuous duty in the field. Its all solid-state construction features a direct FM modulator, four audio mixing channels with individual level controls, built-in compressor/limiter for modulation control, and taut band circuit meter. Designed to operate in the 150- to 172-MHz range, the RPT-40 has a maximum output of 40 watts, frequency stability of 0.0005%, and capability to operate from either 115/230 volts ac or 13.6 volts dc. Weight: 20 lb.

RPT-25 Transmitter — The RPT-25 is similar in appearance to, and has many of the features of, the RPT-40. The RPT-25 is designed to operate in the 450- to 470-MHz spectrum. Output power is 25 watts, maximum. The unit is compatible with unattended automatic relay devices. Weight: 20 lb.

R-30/150 Receiver — The rack-mounted R-30/150 Receiver mates with the RPT-40 Transmitter. An IF crystal filter provides maximum selectivity: 6 dB at +17.5 kHz with a 10.7/f30 filter module (optional filters are available). Audio output is 600 ohms at a -10-dB mW level. Weight: 16 lb.

NOTE: Other Moseley equipment available. See price list for pricing information.
THE NEW FM-30 TRANSMITTER — The single-tube FM-30 incorporates a unique *folded half-wave cavity power amplifier design, digitally programmed FX-30 ultra-linear exciter and, for the first time in a broadcast transmitter, a microprocessor based control system. Totally new, the 30 kW Model FM-30 is the most advanced transmitter since the advent of FM broadcasting.

INNOVATIVE POWER AMPLIFIER DESIGN — A unique power amplifier design is employed in the FM-30. The new high power cavity employs a *half-wavelength folded tank circuit. This new cavity design eliminates the plate blocking capacitor and all sliding contacts. The result is much higher reliability, higher efficiency and lower maintenance costs.

The high gain amplifier has inherent second harmonic suppression with less power lost at the fundamental frequency, yielding higher PA efficiency. For the first time, it is possible to efficiently produce more than 30 kW of output power with a solid-state driver.

All PA tuning and loading adjustments are conveniently located front panel controls. The harmonic filter/directional couplers are located external to the transmitter.

EFFICIENT SINGLE TUBE DESIGN — The FM-30 uses a single, efficient, high gain Eimac 8990/4CX20000A tetrode to provide 30 kW power output on any frequency between 87.5 and 108MHz.

Plate efficiency of the final amplifier approaches 80% at 30 kW output, resulting in comparatively low power consumption. The FM-30 single tube design provides savings in both operating and maintenance costs.

A completely new grid input circuit optimizes the impedance transformation between the solid-state driver and the power tube grid. This novel design takes advantage of the true power gain capability of the Eimac 8990/4CX20000A tetrode. Installation and removal of the power tube, from the front of the transistor, is a quick, simple procedure in the FM-30.

SOLID-STATE IPA — The solid-state IPA assembly in the FM-30 transmitter is composed of 5 identical amplifier modules (one used as a driver for the other four coupled together by a quadrature hybrid combiner/splitter). Failure of any one of the four output IPA modules will cause only a 15 percent power reduction, and in the event of two modules failing only a 35 percent transmitter power reduction will result.

Since all five modules in the IPA are identical, only one type of spare module is necessary, thus reducing maintenance costs. In addition, any one of the four amplifier modules could be used to replace the pre-driver module should the need ever arise.

A conventional quadrature hybrid combiner/splitter is used in the IPA of the FM-30, because of the proven overall simplicity and reliability of this arrangement.

MICROPROCESSOR CONTROL/DIAGNOSTICS — All transmitter control and status functions in the FM-30 are performed by a built-in microprocessor controller. This microprocessor controller is the “brain” that monitors the transmitter operating parameters and then determines what control actions are necessary.

By its continuous scanning action, the microprocessor controller provides 127 different status indications, including 123 codes on two large seven segment LED displays. An additional 4 status indications appear on individual LED's. This gives the transmitter operator more diagnostic information than ever available before, for use in troubleshooting and day-to-day transmitter operation. The system is so simple that no “computer” experience is necessary to operate the FM-30.

Two-step recycling overload protection is also provided in the FM-30.
FM Transmitters
Model FM-30, 15-30KW

"Control Center"—houses PA tuning controls and all PA meters

Power Amplifier Cavity

Power Amplifier Grid Circuit

Blower Assembly

Front view of FM-30 transmitter, with doors and access panels removed.

AUTOMATIC AC RESTART — In the event of a momentary AC power failure, full operation is resumed immediately. If the AC power is lost for a more prolonged period, the transmitter automatically goes through the regular filament warm-up period before high voltage is applied.

HIGH VOLTAGE POWER SUPPLY — All HV power supply components of the FM-30 are contained in a separate transmitter-matching cabinet. The HV power supply cabinet may be located next to the power amplifier cabinet, or located separately almost anywhere in the transmitter building.

EXTENSIVE METERING — The FM-30 provides more metering and diagnostic indications than any other FM transmitter.

The power amplifier alone has 8 meters located in the vertical "Control Center" panel. All amplifier tuning controls are also conveniently arranged in the "Control Center".

Three individual multi-function meters are used in the IPA stage, and the FX-30 exciter has its own built-in metering. There are a total of 12 meters, including 4 multi-functional meters, giving the FM-30 Transmitter extensive metering capability.

REMOTE CONTROL — The FM-30 transmitter is designed so that all necessary operating functions can be remote controlled. The control logic circuitry used in the transmitter can interface directly with most modern remote control and ATS systems.

SYNTHESIZED FX-30 EXCITER — Also totally new, the advanced design Model FX-30 exciter is incorporated in the FM-30 transmitter.

This solid-state exciter is completely broad band and requires no tuning adjustments. Although capable of over 30 watts output, less than 20 watts are required to drive the IPA in the FM-30 transmitter.

The exciter is mounted on a slide out assembly making all components accessible for easy servicing.

The FX-30 accepts multiple wideband composite inputs as well as a 600 ohm balanced input. When used for wideband, stereo or monaural operation, the new Broadcast Electronics FX-30 exciter produces a distinctively clean and superb FM sound.
**FM TRANSMITTING EQUIPMENT**

**SPECIFICATIONS**

**PERFORMANCE:**
- **Power Output:** 30kW (from 15kW to 30kW).
- **Frequency Range:** 87.5 to 108MHz, tuned to specific operating frequency. Exciter programmable in 10kHz increments.
- **RF Output Impedance:** 50 ohms (others on special request).
- **Output Connector:** 3 1/8" EIA flange.
- **Frequency Stability:** ±300Hz, 0° to 50°C, temperature compensated crystal oscillator.
- **Type of Modulation:** Direct frequency modulation of carrier frequency.
- **Modulation Capability:** Greater than ±200kHz.
- **Exciter:** Solid state, 30 watt output. Model FX-30; incorporates digitally programmed synthesizer (10kHz increments).
- **Pre-Emphasis:** FCC 75uS, CCIR 50uS (where specified), or 25uS (Dolby).
- **FM Noise:** 72dB below 100% modulation, @ 400Hz, +75kHz deviation.
- **AM Noise:** 55dB below a reference carrier AM modulated 100% @ 400Hz, 75uS de-emphasis.
- **Tube Complement:** 8990/4CX20000A(1).
- **RF Harmonics:** Suppression meets all FCC requirements and CCIR recommendations.

**ELECTRICAL/MECHANICAL**
- **AC Input Power:** 208/240V, 60Hz, three phase (taps for 196 to 252 V range) (Available for 50Hz to order). Exciter operates from 97V to 133V, 50/60Hz or 194V to 266V, 50/60Hz.
- **Power Consumption:** 50kW.
- **Size:** Transmitter (excluding HV supply) 56.5"W (143.5 cm) × 70"H (177.8 cm) × 31.5"D (80.0 cm). HV power supply cabinet net 34.5"W (87.6 cm) × 70"H (177.8 cm) × 31.5"D (80.0 cm).

**ORDERING INFORMATION**

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<tr>
<th>MODEL</th>
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<th>DESCRIPTION</th>
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<td>FM-30</td>
<td>909-0001-1</td>
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<td>FM-30</td>
<td>909-0001</td>
<td>FM-30, 30kW FM transmitter, with HV power supply cabinet adjacent to PA and IPA/Exciter cabinets.</td>
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<td>8990/4CX20000A</td>
<td>243-0001</td>
<td>Spare tube, for FM-30</td>
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**FM Transmitters**
Model FM-30, 15-30KW
FEATURES
• One-tube Transmitter
• *Folded Half-Wave Output Cavity—No Plate Blocking Capacitor Or Sliding Contacts
• Microprocessor Control Provides 68 Status Indications
• Five Meters Including 3 Multi-function Meters
• Synthesized FX-30 Exciter With Extremely Low Distortion
• Compact And Self-contained
• Elegant Styling
  *Patent Pending

GENERAL DESCRIPTION

Totally new, the 3.5KW Model FM-3.5 is the most advanced transmitter in its power range since the advent of FM broadcasting.

The entire transmitter is contained in a single low profile cabinet only 5’ 10” high (177.8 cm) with easy access to all components. Only five square feet of floor space are required.

The one-tube FM-3.5 incorporates a unique folded half-wave cavity power amplifier design, digitally programmed FX-30 ultra-linear exciter, and, for the first time in a broadcast transmitter, a microprocessor based control system. With these innovative engineering advances, Broadcast Electronics has produced a transmitter for optimum reliability, extensive diagnostic capability, and superb FM performance.

INOATIVE POWER AMPLIFIER DESIGN — A unique new cavity employs a *half-wavelength folded tank circuit. This new cavity design eliminates the plate blocking capacitor and all sliding contacts. The result is much higher reliability, higher efficiency and lower maintenance costs.

The high gain amplifier has inherent second harmonic suppression with less power lost at the fundamental frequency, yielding higher PA efficiency.

All PA tuning and loading adjustments are conveniently located front panel controls. The harmonic filter/directional couplers are located within the transmitter.

SINGLE TUBE DESIGN — The FM-3.5 uses a single Eimac 4CX3000A tetrode to provide 1.5 to 3.5KW power output on any frequency between 87.5 and 108 MHz. The tetrode operates in a high-gain, grid-driven configuration.

Plate efficiency of the final amplifier is typically 75% at 3.5KW output, resulting in comparatively low power consumption. The FM-3.5 one tube design provides savings in both operating and maintenance costs.

A completely new grid input circuit optimizes the impedance transformation between the solid-state driver and the power tube grid. Installation and removal of the power tube, from the rear of the transmitter, is a quick, simple procedure in this compact 3500 watt transmitter.

BROADBAND, SOLID-STATE IPA — A single broadband module using one (1) Type CC-4262 balanced RF power transistor serves as the IPA in the FM-3.5 transmitter. This driver module is conservatively operated at about 50% of its maximum rating, so there is plenty of reserve power in the IPA stage.

The IPA module has an extremely wide RF bandwidth and requires no tuning over the entire 87.5 to 108MHz FM band. Use of the balanced CD-4262 transistor results in extremely low second harmonic content.

MICROPROCESSOR CONTROL/DIAGNOSTICS — All transmitter control and status functions in the FM-3.5 are performed by a built-in microprocessor controller. This microprocessor controller is the "brain" that monitors the transmitter operating parameters and then determines what control actions are necessary.

By its continuous scanning action, the microprocessor controller provides 68 different status indications, including 64 codes on two large seven-segment LED displays. An additional four status indications appear on individual LED’s. This gives the transmitter operator more diagnostic information than ever available before, for use in troubleshooting and day-to-day transmitter operation.
The system is so simple that no "computer" experience is necessary to operate this remarkable transmitter. Two-step recycling overload protection is also provided in the FM-3.5

AUTOMATIC AC RESTART — In the event of momentary AC power failure, full operation is resumed immediately. If the AC power is lost for a more prolonged period, the transmitter automatically goes through the regular filament warm-up period before high voltage is applied.

POWER SUPPLY — All power supplies in the FM-3.5 are self-contained in the transmitter cabinet. Screen, bias and IPA voltage supply components are mounted on a slide-out assembly accessible from the front of the transmitter. The transmitter operates from a 208/240V, 50/60Hz, single phase power system.

The plate transformer has taps for both 208 and 240V and each input has a multi-tap for +10 volts or -10 volts. The transmitter can therefore accommodate 6 different AC inputs from 198V to 250V.

EXTENSIVE METERING/CONTROL — Three large 3.5" meters, including one 9-position multi-function meter, are installed on one panel conveniently located above the exciter. The PA output/VSWR meter is adjacent to the output loading and output tuning controls and the FX-30 exciter has its own built-in metering. Thus, 5 meters, including 3 multi-functional meters, give the FM-3.5 transmitter very extensive metering capability.

SPECIFICATIONS

PERFORMANCE

Power Output: 3500 watts (from 1.5KW to 3.5KW).
Frequency Range: 87.5 to 108 MHz, tuned to specified operating frequency. Exciter programmable in 10kHz increments.
RF Output Impedance: 50 ohms (others on special request).
Output Connector: 1¼" EIA flange.
Frequency Stability: ±300Hz, 0° to 50°C, temperature compensated crystal oscillator.
Type of Modulation: Direct frequency modulation of carrier frequency.
Modulation Capability: Greater than +200 kHz.

Exciter:
Solid-state, 30 watt output, Model FX-30; incorporates digitally programmed synthesizer (10 kHz increments).
Pre-Emphasis:
FCC 75uS, CCIR 50uS (where specified), or 25uS (Dolby).
AM Noise:
55dB below a reference carrier AM modulated 100% @ 400Hz, 75uS deemphasis.
FM Noise:
72dB below 100% modulation, @ 400Hz, +75 kHz deviation.
Tube Complement:
4CX3000A (1).
RF Harmonics:
Suppression meets all FCC requirements and CCIR recommendations.
Power Supply Rectifiers:
Silicon.

REMOTE CONTROL — The FM-3.5 transmitter is designed so that all necessary operating functions can be remote controlled. The control logic circuitry used in the transmitter can interface directly with most modern remote control and ATS systems.

SYNTHESIZED FX-30 EXCITER — Also totally new, the advanced-design Model FX-30 exciter is incorporated in the FM-3.5 transmitter.
This solid-state exciter is completely broadband and requires no tuning adjustments. Although capable of over 30 watts output, less than 10 watts are required to drive the IPA in the FM-3.5 transmitter.
The FX-30 is mounted on a slide out assembly making all components accessible for easy servicing.
The FX-30 accepts multiple wideband composite inputs as well as a 600 ohm balanced input. When used for wideband, stereo or monaural operation, the new Broadcast Electronics FX-30 exciter produces a distinctive clean and superb FM sound.

ELECTRICAL/MECANICAL

AC Input Power:
208/240V, 50/60Hz, single phase (taps for 198 to 250V range) Exciter operates from 97V to 133V, 50/60Hz or 194V to 266V, 50/60Hz.
Power Consumption:
6 kW.
Size:
23.25" W x 70" H x 31.5" D (59cm x 177.8cm x 80.0cm).
Finish:
BE blue with anodized aluminum control center panel and anodized aluminum trim.
Weight & Cubage:
Net 800 lbs.; 31.5 cu. ft. Packed 925 lbs.; 36 cu. ft. (420Kg.; 1.02 cu. meters).
Altitude:
7500 feet.
Ambient Temperature Range:
-10° C to +50° C.

ORDERING INFORMATION

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<th>MODEL</th>
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<td>909-0018</td>
<td>FM-3.5, 3.5KW FM transmitter, with internal HV Power Supply</td>
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<td>4CX3000A</td>
<td>243-2002</td>
<td>Spare tube, for FM-3.5</td>
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FEATURES

- One-tube transmitter
- Folded half-wave output cavity—no plate blocking capacitor or sliding contacts
- Microprocessor control
- Synthesized FX-30 Exciter with extremely low distortion
- Compact and self-contained
- Elegant Styling

GENERAL DESCRIPTION

The one-tube FM-1.5 incorporates a unique folded half-wave cavity power amplifier design, digitally programmed FX-30 ultra-linear exciter and a microprocessor based control system. With these innovative engineering advances, Broadcast Electronics has produced a transmitter for optimum reliability, extensive diagnostic capability, and superb FM performance.

The entire transmitter is contained in a single low profile cabinet only 5’10” high (177.8 cm) with easy access to all components. Only five square feet of floor space are required.

SINGLE TUBE DESIGN — The FM-1.5 uses a single Eimac 4CX1500B tetrode to provide 1.5 KW power output on any frequency between 87.5 and 108 MHz. The tetrode operates in a high-gain configuration and is driven by the solid-state 30 watt Model FX-30 exciter.

Installation and removal of the power tube, from the rear of the transmitter, is a quick, simple procedure in this compact 1500 watt transmitter.

INNOVATIVE POWER AMPLIFIER DESIGN — A unique new cavity employs a “half-wavelength folded tank circuit. This new cavity design eliminates the plate blocking capacitor and all sliding contacts. The result is much higher reliability, higher efficiency and lower maintenance costs.

The high gain amplifier has inherent second harmonic suppression with less power lost at the fundamental frequency, yielding higher PA efficiency.

All PA tuning and loading adjustments are conveniently located front panel controls. The harmonic filter/directional couplers are located within the transmitter.

MICROPROCESSOR CONTROL/DIAGNOSTICS — All transmitter control and status functions in the FM-1.5 are performed by a built-in microprocessor controller. This microprocessor controller is the “brain” that monitors the transmitter operating parameters and then determines what control actions are necessary.

- Patent Pending

By its continuous scanning action, the microprocessor controller provides more than 50 different status indications, including 46 codes on two large seven-segment LED displays. An additional four status indications appear on individual LED’s. This gives the transmitter operator more diagnostic information than ever available before, for use in troubleshooting and day-to-day transmitter operation.

The system is so simple that no “computer” experience is necessary to operate this remarkable transmitter.

Two-step recycling overload protection is also provided in the FM-1.5.

AUTOMATIC AC RESTART — In the event of a momentary AC power failure, full operation is resumed immediately. If the AC power is lost for a more prolonged period, the transmitter automatically goes through the regular filament warm-up period before high voltage is applied.
FM Transmitters
Model FM-1.5, 1500 Watts

POWER SUPPLY — All power supplies in the FM-1.5 are self-contained in the transmitter cabinet. Screen bias and filament voltage power supply components are mounted on a slide-out assembly accessible from the front of the transmitter. The transmitter operates from a 208/240V, 50/60Hz, single phase power system.

The plate transformer has taps for both 208 and 240V and each input has a multi-tap for +10 volts or -10 volts. The transmitter can therefore accommodate 6 different AC inputs from 198V to 250V.

EXTENSIVE METERING/CONTROL — Three large 3.5” meters, including one multi-function meter, are installed on one panel conveniently located above the exciter. The PA output/VSWR meter is adjacent to the output loading and output tuning controls and the FX-30 exciter has its own built-in metering. Thus, 5 meters, including 3 multi-functional meters, give the FM-1.5 transmitter very extensive metering capability.

REMOTE CONTROL — The FM-1.5 transmitter is designed so that all necessary operating functions can be remote controlled. The control logic circuitry used in the transmitter can interface directly with most modern remote control and ATS systems.

SYNTHESIZED FX-30 EXCITER — Also totally new, the synthesized Model FX-30 exciter is incorporated in the FM-1.5 Transmitter.

This solid-state exciter is completely broadband and requires no tuning adjustments for a conservative 30 watt output. With 30 watts output, this is all the drive that is required to obtain a conservative 1500 watts output from the transmitter.

The FX-30 is mounted on a slide out assembly making all components accessible for easy servicing.

The FX-30 accepts multiple wideband composite inputs as well as a 600 ohm balanced input. When used for wideband, stereo or monaural operation, the new Broadcast Electronics FX-30 exciter produces a distinctively clean and superb FM sound.

**Patent Pending**

SPECIFICATIONS

PERFORMANCE

Power Output:
1500 watts (from 500W to 1.5KW).

Frequency Range:
87.5 to 108 MHz, tuned to specified operating frequency. Exciter programmable in 10kHz increments.

RF Output Impedance:
50 ohms (others on special request).

Output Connector:
1½” EIA flange.

Frequency Stability:
±300 Hz, 0° to 50° C, temperature compensated crystal oscillator.

Type of Modulation:
Direct frequency modulation of carrier frequency.

Exciter:
Solid-state, 30 watt output. Model FX-30 incorporates digitally programmed synthesizer (10 kHz increments).

Pre-Emphasis:
FCC 75uS, CCIR 50uS (where specified), or 25uS (Dolby).

AM Noise:
55dB below a reference carrier AM modulated 100% @ 400 Hz, 75uS deemphasis.

FM Noise:
72 dB below 100% modulation, @ 400 Hz, ±75 kHz deviation.

Tube Complement:
4CX1500B (1).

RF Harmonics:
Suppression meets all FCC requirements and CCIR recommendations.

Power Supply Rectifiers:
Silicon.

ELECTRICAL/MECHANICAL

AC Input Power:
208/240V, 50/60Hz, single phase (taps for 198 to 250V range) Exciter operates from 97V to 133V, 50/60HZ or 194V to 266V, 50/60Hz.

Power Consumption:
2.5 kW (approx.).

Size:
23.25”W × 70”H × 31.5”D (59 cm × 177.8 cm × 80.0 cm).

Finish:
BE blue with anodized aluminum center panel and anodized aluminum trim.

Weight & Cubage:
Net 800 lbs; 31.5 cu. ft. Packed 925 lbs; 36 cu. ft. (420kg; 1.02 cu. meters).

Altitude:
7500 feet

Ambient Temperature Range:
-10° C to +50° C.

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<td>FM-1.5, 1500 watt FM transmitter, with internal HV Power Supply</td>
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<td>4CX1500B</td>
<td>243-0003</td>
<td>Spare tube, for FM-1.5</td>
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Model FX-30 Synthesized Exciter
GENERAL DESCRIPTION

The new Broadcast Electronics FX-30 FM Exciter offers performance so superior that it rivals the best hi-fidelity tuners available. Distortion in the FX-30 is extremely low, while programming is loud and clear. The elegant styling, with attractive anodized aluminum front panel, complements the outstanding electronic design of the unit.

Whether it is used in one of the new Broadcast Electronics FM transmitters, or as a replacement for an existing exciter, the FX-30 is the new performance leader in FM broadcasting.

ULTRA-LINEAR MODULATED OSCILLATOR — The performance of any stereo multiplex and SCA FM transmitter system is highly dependent on the linearity of the modulated oscillator in the FM Exciter. The ultra-linear modulated oscillator design used in the FX-30 provides minimum intermodulation of base band frequency components, resulting in superior stereo and SCA performance.

The FX-30 has extremely low distortion, with THD and IMD less than 0.08%, and it’s the first exciter to specify Transient Intermodulation Distortion (TIM) at less than 0.1%. Programming is loud and sparkling clear with the FX-30, yet it’s the quietest exciter of all, with a typical signal-to-noise ratio 78 dB.

The FX-30 accepts multiple wideband composite inputs from any stereo generator or SCA generator, as well as a 600 ohm balanced monaural input. When used for wideband, stereo, SCA, or monaural operation, Broadcast Electronics’ new FX-30 Exciter produces a distinctively transparent FM sound.

FEATURES

- Superior Performance Rivals The Best Hi-fidelity Tuners
- Ultra-linear Modulated Oscillator For Unexcelled Stereo and SCA Performance
- Composite Inputs Compatible With All Stereo And SCA Generators
- Extremely Low Distortion — THD And IMD Less Than 0.08%
- First Exciter To Specify Transitnt Intermodulation Distortion (TIM) At Less Than 0.1%
- Advanced Dual-speed Phase Locked Loop Greatly Improves Low Frequency Response
- Quiet Operation — Typical S/N Ratio Of 78 dB
- Completely Broadband — Requires No Tuning
- Automatic Control Circuitry Stabilizes Output And Protects Electronics
- Extensive Metering, Including Built-in Modulation Indicator
- Elegant Styling
- FCC Type Accepted

ADVANCED DUAL-SPEED PHASE LOCKED LOOP SYNTHESIZER — The method of frequency control used in an FM exciter greatly influences the exciter’s modulation fidelity. The FX-30 utilizes an advanced dual-speed phase locked loop to lock the frequency of the modulated oscillator to a precision reference oscillator, while greatly improving low frequency response. The FX-30 achieves lock from a cold start in less than 5 seconds and still allows full modulation capability from 1Hz to 100kHz.

A digitally programmed frequency synthesizer that permits field frequency changes in 10kHz increments puts more than 2000 channels at your command, without requiring new crystals. The temperature compensated reference oscillator allows immediate on-frequency operation of the exciter without temperature controlled oven warm up. The 10MHz reference frequency can be directly compared to worldwide frequency standards.

BROADBAND RF AMPLIFIER — The solid-state FX-30 exciter is completely broadband and requires no tuning adjustments for a conservative 30 watt output. The RF output is continuously adjustable from 3 watts to 30 watts.

The broadband performance of the RF amplifier eliminates the need for adjustments to any particular frequency within the FM band. This assures that the exciter output is transparent to the signal generated by the modulated oscillator and enhances amplifier stability under varying load conditions.
AUTOMATIC CONTROL CIRCUITRY — Automatic control circuitry in the FX-30 eliminates adjustments after the initial setup. The control circuitry automatically stabilizes the power output of the exciter, and protects it against excessive temperature, VSWR, voltages and short circuits.

EXTENSIVE METERING — Metering of the important operating parameters of the FX-30 is provided by a combination of analog metering and a digital LED display.

Eight steady state parameters are selected by a pushbutton switch and displayed on a conventional analog multimeter. In addition, this multimeter may be used as a built-in, high impedance test meter for point-by-point measurements within the exciter using the built-in test probe.

A color coded LED display constantly monitors the composite signal applied to the modulated oscillator, and provides a clear indication of short transient peaks exceeding 100% modulation. The ballistics and speed of this built-in modulation monitor make it more accurate and useful than ordinary modulation monitors.

MODULAR, SLIDE-OUT CONSTRUCTION — The entire FX-30 chassis is mounted on slides, so when the unit is pulled out from the rack or transmitter, all sub-assemblies are easily accessible while the unit continues to operate.

Front panel test jacks allow measurements of the composite signal to be made without removing or opening the unit.

**FX-30 EXCITER - SIMPLIFIED BLOCK DIAGRAM**
Model FX-30 Exciter

Rear view of the FX-30 Exciter with the top cover removed. The clearly labeled rear panel and terminal strip simplify setup and maintenance.

SPECIFICATIONS

GENERAL

Power Output:
3W to 30W continuously variable.

R.F. Output Impedance:
50 ohms, VSWR less than 2:1 for full output, (open and short circuit protected) BNC connector.

R.F. Harmonic and Supurrious Suppression:
(Conducted) at least 58 dB below rated output.

Frequency Range:
87MHz to 109MHz digitally programmable in 10kHz increments.

Frequency Stability:
±300Hz, 0° to 50°C, TCXO.

Modulation Type:
Direct FM at the carrier frequency.

Modulation Capability:
±20kHz.

Modulation Indication:
Peak reading, color coded, LED display with baseband overmodulation indicator.

Asynchronous AM S/N Ratio:
70 dB below reference carrier with 100% AM modulation @ 400Hz, 75 microsecond de-emphasis, (no FM modulation present).

Synchronous AM S/N Ratio:
50 dB below reference carrier with 100% AM modulation @ 400Hz, 75 microsecond de-emphasis. (FM modulation ±75kHz @ 400Hz).

Multimeter:
8 function diagnostic aid

Test Metering:
Internal high input impedance multimeter with probe, for point by point measurements.

Front Panel Composite Test Jacks:
Composite input and composite output.

Audio/Control Connections:
14 position barrier strip and (4) BNC connectors.

AC Input Power:
97 to 133 VAC or 194 to 266 VAC, 50/60Hz, 200W max.

Ambient Temperature Range:
0° C to 50° C (operational to ~20° C).

Cabinet Size:
17.70" (44.96cm) W x 5.25" (13.33cm) H x 19.00" (48.26cm) D. Standard 19" (48.26cm) rack mounting with slide out feature for easy access.

Net Weight:
36 lbs. (16.3kg); packed 42 lbs. (19.1kg).

Finish:
Anodized aluminum.

WIDEBAND COMPOSITE OPERATION

Composite Inputs:
3 total (1) unbalanced and (1) balanced plus front panel test. BNC connectors.

Composite Input Impedance:
10k ohm, nominal, resistive.

Composite Input Level:
3.5V P-P nominal, for ±75kHz deviation.

Composite FM S/N Ratio:
72 dB below ±75kHz deviation @ 400Hz (78 dB typical). Measured in a 30Hz to 100kHz bandwidth with 75 microsecond de-emphasis.

Composite Harmonic Distortion:
0.08% or less (0.4% typical).

Composite Intermodulation Distortion:
0.08% or less (.04% typical).

Composite Transient IMD:
0.1% or less (square wave/sine wave). Composite Amplitude Response:
±0.1 dB 30Hz to 100kHz.

Composite Phase Response:
±0.5° from linear phase 30Hz to 53kHz.

MONOURAL OPERATION

Audio Input Impedance:
600 ohms balanced, resistive, adaptable to other impedances, 50 dB common mode suppression.

Audio Input Level:
±10 dBm nominal for ±75kHz deviation @ 400Hz.

Audio Frequency Response:
±0.5 dB 30Hz to 15kHz, selectable flat, 25, 50 or 75 microsecond pre-emphasis.

Harmonic Distortion:
0.08% or less 30Hz to 15kHz.

Intermodulation Distortion:
0.08% or less, 60Hz/7kHz 4:1 ratio.

Transient IMD:
0.1% or less (square wave/sine wave).

FM S/N Ratio:
72 dB below ±75kHz deviation @ 400Hz (78 dB typical) measured in a 30Hz to 15kHz bandwidth with 75 microsecond de-emphasis.

Specifications subject to change without notice.

ORDERING INFORMATION

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<thead>
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<th>STOCK NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>FX-30</td>
<td>909-0009</td>
<td>FX-30 Exciter, for wideband, composite or mono operation, with 19-inch rack mount.</td>
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<tr>
<td>FX-30</td>
<td>909-0002</td>
<td>FX-30 Exciter, for wideband, composite or mono operation, with 21 inch front panel.</td>
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**BROADCAST ELECTRONICS INC.**

**PRODUCERS OF Spotmaster ® TAPE CARTRIDGE EQUIPMENT**

4100 NORTH 24th STREET – QUINCY, ILLINOIS 62301, U.S.A.

Telephone: (217) 224-9600 – Telex: 25-0142 – Cable: "SPOTMASTER"
### TAPE CARTRIDGE EQUIPMENT

**Note:** Additional cost for 220V, 50 Hz power source is indicated separately for each product.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFESSIONAL NET</th>
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<tbody>
<tr>
<td><strong>SERIES 3000 TAPE CARTRIDGE MACHINES</strong> <em>(With Duracore® Heads)</em></td>
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<td><strong>STANDARD MODELS—NO OPTIONS</strong></td>
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<tr>
<td>3100P</td>
<td>906-3100</td>
<td>Mono, Playback Only, A Size Cartridges</td>
<td>$ 975.00</td>
<td>A R</td>
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<tr>
<td>3100PS</td>
<td>906-3101</td>
<td>Stereo, Playback Only, A Size Cartridges</td>
<td>1125.00</td>
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<tr>
<td>3200P</td>
<td>906-3200</td>
<td>Mono, Playback Only, A &amp; B Size Cartridges</td>
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<td>3200RP</td>
<td>906-3201</td>
<td>Mono, Record/Playback, A &amp; B Size Cartridges</td>
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<tr>
<td>3200PS</td>
<td>906-3202</td>
<td>Stereo, Playback Only, A &amp; B Size Cartridges</td>
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<tr>
<td>3200RPS</td>
<td>906-3203</td>
<td>Stereo, Record/Playback, A &amp; B Size Cartridges</td>
<td>2050.00</td>
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<tr>
<td>3200RP/DL</td>
<td>906-3204</td>
<td>Mono, Delay Programmer, A &amp; B Size Cartridges</td>
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<tr>
<td>3300P</td>
<td>906-3300</td>
<td>Mono, Playback Only, A, B, &amp; C Size Cartridges</td>
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<td>3300RP</td>
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<td>Mono, Record/Playback, A, B, &amp; C Size Cartridges</td>
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<tr>
<td>3300PS</td>
<td>906-3302</td>
<td>Stereo, Playback Only, A, B, &amp; C Size Cartridges</td>
<td>1215.00</td>
<td>A R</td>
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<tr>
<td>3300RPS</td>
<td>906-3303</td>
<td>Stereo, Record/Playback, A, B, &amp; C Size Cartridges</td>
<td>2075.00</td>
<td>A R</td>
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<tr>
<td>3300RP/DL</td>
<td>906-3304</td>
<td>Mono, Delay Programmer, A &amp; B &amp; C Size Cartridges</td>
<td>1950.00</td>
<td>A R</td>
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<tr>
<td>3400P</td>
<td>906-3400</td>
<td>Mono, Playback only, rack mount, A, B &amp; C Size Cartridges</td>
<td>1095.00</td>
<td>A R</td>
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<tr>
<td>3400PS</td>
<td>906-3401</td>
<td>Stereo, Playback only, rack mount, A, B &amp; C Size Cartridges</td>
<td>1250.00</td>
<td>A R</td>
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<tr>
<td>3400RP</td>
<td>906-3402</td>
<td>Mono, Record/Playback, rack mount, A, B &amp; C Size Cartridges</td>
<td>1740.00</td>
<td>A R</td>
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<tr>
<td>3400RPS</td>
<td>906-3403</td>
<td>Stereo, Record/Playback, rack mount, A, B &amp; C Size Cartridges</td>
<td>2090.00</td>
<td>A R</td>
</tr>
<tr>
<td>3400RP/DL</td>
<td>906-3011</td>
<td>Mono, Delay Programmer, rack mount</td>
<td>2000.00</td>
<td>A R</td>
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</tbody>
</table>

**NOTE:** FACTORY OPTIONS CANNOT BE INSTALLED AFTER EQUIPMENT HAS BEEN MANUFACTURED AND SHIPPED.

<table>
<thead>
<tr>
<th>FACTORY INSTALLED OPTIONS</th>
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<th>PROFESSIONAL NET</th>
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<tbody>
<tr>
<td>906-3000</td>
<td>Q Trip I &amp; II (150 Hz and 8 kHz), Playback Only Models</td>
<td>75.00</td>
<td>A R</td>
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<tr>
<td>906-3001</td>
<td>Q Trip I &amp; II (150 Hz and 8 kHz), Record/Playback Models</td>
<td>100.00</td>
<td>A R</td>
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<tr>
<td>906-3002</td>
<td>Adjustment of Equalization to IEC/CCIR Specifications</td>
<td>NC</td>
<td>A</td>
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<tr>
<td>906-3003</td>
<td>Microphone Input Option, Mono Record/Playback Models</td>
<td>75.00</td>
<td>A</td>
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<tr>
<td>906-3004</td>
<td>Microphone Input Option, Stereo Record/Playback Models</td>
<td>100.00</td>
<td>A</td>
</tr>
<tr>
<td>906-3005</td>
<td>Automatic and Manual Fast Forward, Playback Only Models with Q Trip I and II (150 Hz and 8 kHz)</td>
<td>200.00</td>
<td>A R</td>
</tr>
<tr>
<td>906-3006</td>
<td>Automatic and Manual Fast Forward, Record/Playback Models with Q Trip I and II (150 Hz and 8 kHz)</td>
<td>225.00</td>
<td>A R</td>
</tr>
<tr>
<td>906-3007</td>
<td>Additional cost for 117 VAC/50 Hz; or 220 VAC/240 VAC/50 Hz</td>
<td>100.00</td>
<td>A</td>
</tr>
<tr>
<td>906-3008</td>
<td>Additional cost for alternate 3.75 IPS tape speed</td>
<td>125.00</td>
<td>A R</td>
</tr>
</tbody>
</table>

**ACCESSORIES**

| 906-3013 | Rack Mount Shelf for EIA 19" Rack | 60.00 | A |
| 471-0082 | Top Cover for 3100 Series | 20.00 | A R |
| 471-0083 | Top Cover for 3200 Series | 21.00 | A R |
| 471-0084 | Top Cover for 3300 Series | 22.00 | A R |
| 906-3010 | Top Cover for 906-3013 Shelf | 25.00 | A |
| 906-3413 | Top Cover for Desk Mounting 3400 Series | 30.00 | A R |

**Note:** 11 series 3000 machines are to be mounted in 906-3013 RackShell, order 906-3010 Top Cover and deduct $10 from price of each machine ordered for rack mounting

| 906-3014 | Rack Shell Filler Panel, 1/2 Rack | 15.00 | A |
| 906-3015 | Rack Shell Filler Panel, 1/2 Rack | 20.00 | A |
| 919-1504 | Extender, P.C. Boards | 40.00 | A R |

**Note:** Accessory remote controls listed on page 7
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<thead>
<tr>
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<th>DESCRIPTION</th>
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<th>CODE</th>
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</thead>
<tbody>
<tr>
<td>5501</td>
<td>906-5501</td>
<td>Mono Playback (A Size)</td>
<td>3295.00</td>
<td>B R</td>
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<tr>
<td>5502</td>
<td>906-5502</td>
<td>Mono Playback (A Size) with Cue Tones</td>
<td>3495.00</td>
<td>B R</td>
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<tr>
<td>5503</td>
<td>906-5503</td>
<td>Stereo Playback (A Size)</td>
<td>3795.00</td>
<td>B R</td>
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<tr>
<td>5504</td>
<td>906-5504</td>
<td>Stereo Playback (A Size) with Cue Tones</td>
<td>3995.00</td>
<td>B R</td>
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**SERIES 5300B THREE-DECK TAPE CARTRIDGE MACHINES**

(With Duracore® Heads)

<table>
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<tbody>
<tr>
<td>5301B</td>
<td>906-5301B</td>
<td>Mono Playback (A &amp; B Size)</td>
<td>2300.00</td>
<td>A R</td>
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<tr>
<td>5302B</td>
<td>906-5302B</td>
<td>Mono Playback (A &amp; B Size) with Cue Tones</td>
<td>2400.00</td>
<td>A R</td>
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<tr>
<td>5303B</td>
<td>906-5303B</td>
<td>Stereo Playback (A &amp; B Size)</td>
<td>2700.00</td>
<td>A R</td>
</tr>
<tr>
<td>5304B</td>
<td>906-5304B</td>
<td>Stereo Playback (A &amp; B Size) with Cue Tones</td>
<td>2800.00</td>
<td>A R</td>
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**ACCESSORIES (FOR 5500 & 5300 SERIES)**

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<thead>
<tr>
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<th>DESCRIPTION</th>
<th>PRICE</th>
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</thead>
<tbody>
<tr>
<td>SW5E</td>
<td>904-5000</td>
<td>Audio Switcher for 3 Decker</td>
<td>195.00</td>
<td>B</td>
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<tr>
<td>SW5F</td>
<td>904-5001</td>
<td>Audio Switcher for 5 Decker</td>
<td>250.00</td>
<td>B</td>
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<tr>
<td>906-5309</td>
<td>Recorder, Mono for 3 Decker, without Q Trip Option</td>
<td>850.00</td>
<td>A R</td>
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<tr>
<td>906-5309A</td>
<td>Recorder, Mono for 5 Decker, without Q Trip Option</td>
<td>850.00</td>
<td>A R</td>
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<tr>
<td>906-5310</td>
<td>Recorder, Stereo for 3 Decker, without Q Trip Option</td>
<td>1050.00</td>
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<tr>
<td>906-5310A</td>
<td>Recorder, Stereo for 5 Decker, without Q Trip Option</td>
<td>1050.00</td>
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<tr>
<td>906-5311A</td>
<td>Secondary (150 Hz) and Tertiary (8 kHz) Q Trips for Mono Recorder</td>
<td>75.00</td>
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<tr>
<td>906-5311B</td>
<td>Secondary (150 Hz) and Tertiary (8 kHz) Q Trips for Stereo Recorder</td>
<td>75.00</td>
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<tr>
<td>906-5506</td>
<td>Rack Shelf for (1) to (3) Units, 5 Decker</td>
<td>150.00</td>
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<tr>
<td>906-5507</td>
<td>½ Rack Filler Panel, 5 Decker</td>
<td>15.00</td>
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<tr>
<td>906-5306</td>
<td>Rack Mount (1) Unit, 3 Decker</td>
<td>50.00</td>
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<tr>
<td>906-5307</td>
<td>Rack Mount (2) Units, 3 Decker</td>
<td>30.00</td>
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<tr>
<td>906-5308</td>
<td>Additional cost for 220/50 Hz Power Source, 5300 Series</td>
<td>150.00</td>
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<tr>
<td>906-5508</td>
<td>Additional Cost for 220V/50 Hz Power Source, 5500 Series</td>
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<td>A</td>
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<tr>
<td>919-1806</td>
<td>Extender PC Board</td>
<td>40.00</td>
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**2100 SERIES TAPE CARTRIDGE MACHINES**

(A, B, C SIZE CARTRIDGES)

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<th>STOCK NO.</th>
<th>DESCRIPTION</th>
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<th>CODE</th>
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<tbody>
<tr>
<td>2100P</td>
<td>907-2110</td>
<td>Mono, Playback Only, 115V, 60 Hz</td>
<td>900.00</td>
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<tr>
<td>2100RP</td>
<td>907-2111</td>
<td>Mono, Record/Playback, 115V, 60 Hz</td>
<td>1450.00</td>
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<tr>
<td>2100PS</td>
<td>907-2112</td>
<td>Stereo, Playback Only, 115V, 60 Hz</td>
<td>1000.00</td>
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<tr>
<td>2100RPS</td>
<td>907-2113</td>
<td>Stereo, Record/Playback, 115V, 60 Hz</td>
<td>1700.00</td>
<td>A</td>
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<tr>
<td>2100PA</td>
<td>907-2115</td>
<td>Mono, Playback with Audition/Speaker, 115, 60 Hz</td>
<td>995.00</td>
<td>A R</td>
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<tr>
<td>2100P</td>
<td>907-2120</td>
<td>Mono, Playback Only, 220V, 50 Hz</td>
<td>975.00</td>
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<tr>
<td>2100RP</td>
<td>907-2121</td>
<td>Mono, Record/Playback, 220V, 50 Hz</td>
<td>1550.00</td>
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<td>2100PS</td>
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<td>1075.00</td>
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<td>2100RPS</td>
<td>907-2123</td>
<td>Stereo, Record/Playback, 220V, 50 Hz</td>
<td>1800.00</td>
<td>A</td>
</tr>
<tr>
<td>2100PA</td>
<td>907-2124</td>
<td>Mono, Playback with Audition/Speaker, 220V, 50 Hz</td>
<td>1070.00</td>
<td>A R</td>
</tr>
</tbody>
</table>

**OPTIONS AND ACCESSORIES**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PRICE</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>907-2114</td>
<td>Rack Mount Shelf for EIA 19&quot; Rack. Holds up to three 2100 Series</td>
<td>60.00</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>471-2101</td>
<td>Top Cover for 2114 Shelf</td>
<td>25.00</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>503-2124</td>
<td>Rack Shelf Filler Panel, ½ Rack</td>
<td>15.00</td>
<td>A</td>
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<tr>
<td>503-2123</td>
<td>Rack Shelf Filler Panel, ¾ Rack</td>
<td>20.00</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>471-0054</td>
<td>Top Cover for 2100 Series</td>
<td>25.00</td>
<td>A R</td>
<td></td>
</tr>
<tr>
<td>919-2100</td>
<td>Test Extender PC Board</td>
<td>40.00</td>
<td>A R</td>
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</tr>
<tr>
<td>906-3002</td>
<td>Adjustment For Equalization To IEC/CCIR Specifications</td>
<td>N/C</td>
<td>A</td>
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</table>
# SERIES 2000 TAPE CARTRIDGE MACHINES

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
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</thead>
<tbody>
<tr>
<td>2000P</td>
<td>906-2000</td>
<td>Series 2000, Monaural Playback, Compact Unit</td>
<td>750.00</td>
<td>A R</td>
</tr>
<tr>
<td>2000RP</td>
<td>906-2001</td>
<td>Series 2000, Monaural Record/Playback Compact Unit complete with Factory Installed Record Module and Head</td>
<td>1000.00</td>
<td>A R</td>
</tr>
<tr>
<td>2000PS</td>
<td>906-2020</td>
<td>Series 2000, Stereo Playback, Compact Unit</td>
<td>850.00</td>
<td>A R</td>
</tr>
<tr>
<td>2000RPS</td>
<td>906-2021</td>
<td>Series 2000, Stereo Record/Playback Compact Unit complete with Factory Installed Record Module and Head</td>
<td>1300.00</td>
<td>A R</td>
</tr>
</tbody>
</table>

**FACTORY INSTALLED OPTIONS**

<table>
<thead>
<tr>
<th>Stock No.</th>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>906-2003</td>
<td>Additional cost for 117 VAC/50 Hz; or 220 VAC/240 VAC/50 Hz.</td>
<td>A</td>
</tr>
<tr>
<td>906-2006</td>
<td>Additional cost for alternate 3.75 IPS tape speed.</td>
<td>A</td>
</tr>
</tbody>
</table>

**ACCESSORIES**

<table>
<thead>
<tr>
<th>Model</th>
<th>STOCK NO.</th>
<th>Description</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW-5D</td>
<td>904-0009</td>
<td>2000 Audio Switcher for up to 5 Units</td>
<td>345.00</td>
<td>B</td>
</tr>
<tr>
<td>906-2014</td>
<td></td>
<td>Dual Rack Adapter for Two Series 2000 Units</td>
<td>60.00</td>
<td>A</td>
</tr>
<tr>
<td>503-0021</td>
<td></td>
<td>Rack Filler Panel, ½ Rack</td>
<td>25.00</td>
<td>A</td>
</tr>
</tbody>
</table>

---

# SERIES 500 TAPE CARTRIDGE MACHINES

<table>
<thead>
<tr>
<th>Model</th>
<th>STOCK NO.</th>
<th>Description</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
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</thead>
<tbody>
<tr>
<td>500D</td>
<td>900-0500</td>
<td>Monaural Record/Playback Unit, Compact</td>
<td>1150.00</td>
<td>A R</td>
</tr>
<tr>
<td>500DR</td>
<td>901-0500</td>
<td>Monaural Record/Playback Unit, Rack Mounting with Slides</td>
<td>1350.00</td>
<td>A R</td>
</tr>
<tr>
<td>505D</td>
<td>900-0505</td>
<td>Monaural Playback Unit, Compact</td>
<td>850.00</td>
<td>A R</td>
</tr>
<tr>
<td>505DR</td>
<td>901-0505</td>
<td>Monaural Playback, Rack Mounting with Slides</td>
<td>1000.00</td>
<td>A R</td>
</tr>
<tr>
<td>500D/DL</td>
<td>900-0502</td>
<td>Delay, Record/Playback Unit, Compact</td>
<td>1250.00</td>
<td>A R</td>
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</table>

**FACTORY INSTALLED OPTIONS**

<table>
<thead>
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<th>Stock No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>900-0508</td>
<td>Additional cost for 117 VAC/50 Hz; or 220 VAC/240 VAC/50 Hz.</td>
<td>A</td>
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<tr>
<td>900-0509</td>
<td>Additional cost for alternate 3.75 IPS tape speed.</td>
<td>A</td>
</tr>
<tr>
<td>840-0004</td>
<td>Installed Cue Trip I Sensor (500D Series) (150 Hz)</td>
<td>A</td>
</tr>
<tr>
<td>840-0005</td>
<td>Installed Cue Trip I Generator (500DR) (150 Hz)</td>
<td>A</td>
</tr>
<tr>
<td>840-0006</td>
<td>Installed Cue Trip I Generator (500D) (150 Hz)</td>
<td>A</td>
</tr>
<tr>
<td>840-0007</td>
<td>Installed Cue Trip II Sensor all models (8 kH)</td>
<td>A</td>
</tr>
<tr>
<td>840-0008</td>
<td>Installed Cue Trip II Generator all models (8 kH)</td>
<td>A</td>
</tr>
<tr>
<td>841-0010</td>
<td>Installed Microphone Preamplifier Option (Model 500DR Series)</td>
<td>A</td>
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*Note: Accessory Remote Controls, audio switcher, and PHASE-LOK head brackets listed on pages 7 and 4*

**FIELD INSTALLATION KITS FOR 500/505D SERIES**

<table>
<thead>
<tr>
<th>Stock No.</th>
<th>Description</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>830-0100</td>
<td>Field Installation Kit, Cue Trip I Sensor (all units) (150 Hz)</td>
<td>160.00</td>
<td>A</td>
</tr>
</tbody>
</table>

*Note: Dual tone sensor replaces standard single sensor. Credit issued for single sensor under warranty.*

<table>
<thead>
<tr>
<th>Stock No.</th>
<th>Description</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
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</thead>
<tbody>
<tr>
<td>830-0101</td>
<td>Field Installation Kit, Cue Trip I Generator (500/505 D Series) (150 Hz)</td>
<td>75.00</td>
<td>A</td>
</tr>
<tr>
<td>830-0102</td>
<td>Field Installation Kit, Cue Trip I Generator (500D, 500D/DL) (150 Hz)</td>
<td>75.00</td>
<td>A</td>
</tr>
<tr>
<td>830-0200</td>
<td>Field Installation Kit, Cue Trip II Sensor (All Units) (8 k Hz)</td>
<td>90.00</td>
<td>A</td>
</tr>
<tr>
<td>830-0201</td>
<td>Field Installation Kit, Cue Trip II Generator (All Units) (8 k Hz)</td>
<td>75.00</td>
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</table>
## MODEL 605/610 MULTI-DECK TAPE CARTRIDGE MACHINES

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>605C</td>
<td>902-0605</td>
<td>5 Channel Playback Unit in Formica Cabinet w/Emitter Follower Output</td>
<td>2795.00</td>
<td>BR</td>
</tr>
<tr>
<td>605C</td>
<td>902-0605A</td>
<td>5 Channel Playback Unit in Formica Cabinet w/Transformer Output</td>
<td>2895.00</td>
<td>BR</td>
</tr>
<tr>
<td>605CR</td>
<td>902-0606</td>
<td>5 Channel Playback Unit; Rack Mounting, w/Cartridge Storage Cubicle, Emitter Follower Output</td>
<td>2795.00</td>
<td>BR</td>
</tr>
<tr>
<td>605CR</td>
<td>902-0606A</td>
<td>5 Channel Playback Unit; Rack Mounting, w/Cartridge Storage Cubicle and Transformer Output</td>
<td>2895.00</td>
<td>BR</td>
</tr>
<tr>
<td>610CR</td>
<td>902-0610</td>
<td>10 Channel Playback Unit, Rack Mounting, Emitter Follower Output</td>
<td>5100.00</td>
<td>BR</td>
</tr>
<tr>
<td>610CR</td>
<td>902-0610A</td>
<td>10 Channel Playback Unit, Rack Mounting w/Transformer Output</td>
<td>5200.00</td>
<td>BR</td>
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### FACTORY INSTALLED OPTIONS

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Price</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>387-0041</td>
<td>Installed Power Conversion, 220V/50 Hz, 7.5 IPS, w/220V/117V step-down transformer (Models 605C, 605CR) (Requires two for 610CR)</td>
<td>150.00</td>
<td>B</td>
</tr>
<tr>
<td>387-0044</td>
<td>Installed Speed Conversion, 117V/60 Hz, 3.75 IPS (Models 605C, 605CR) (Requires two for 610CR)</td>
<td>50.00</td>
<td>B</td>
</tr>
<tr>
<td>840-0011</td>
<td>Installed Cue Trip I Sensor (per deck) (150 Hz)</td>
<td>105.00</td>
<td>B</td>
</tr>
<tr>
<td>840-0012</td>
<td>Installed Cue Trip II Sensor Option, with Sensors (Models 605C, 605CR) includes separate enclosure</td>
<td>385.00</td>
<td>BR</td>
</tr>
<tr>
<td>840-0013</td>
<td>Installed Cue Trip II Sensor Option, with Sensors (Model 610CR) includes separate enclosure</td>
<td>630.00</td>
<td>BR</td>
</tr>
<tr>
<td>949-0605</td>
<td>Installed Cue Trip Sequencing Cable for 605B</td>
<td>30.00</td>
<td>B</td>
</tr>
</tbody>
</table>

**Note:** Cue Trip II Sensors mounted externally. 840-0012 may be used w/610CR model if only 5 sensors required.

**Note:** Price for any listed factory installed option for Model 610CR is twice the price indicated above for the same Model 605 option.

### ACCESSORIES

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Price</th>
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<tbody>
<tr>
<td>EB101</td>
<td>Test Extender PCB Module</td>
<td>40.00</td>
<td>BR</td>
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</tbody>
</table>

**Note:** Accessory remote control and Audio Switcher are listed on page 7

## CARTRIDGE MACHINE REPLACEMENT PARTS

### PHASE-LOK III HEAD BRACKET

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Price</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>952-7701</td>
<td>For Mounting One Head with Tape Guides and Hold Down Spring (Head not included)</td>
<td>50.00</td>
<td>B</td>
</tr>
<tr>
<td>952-7702</td>
<td>For Mounting Two Heads with Tape Guides and Hold Down Spring (Heads not included)</td>
<td>75.00</td>
<td>B</td>
</tr>
<tr>
<td>952-7703</td>
<td>Dummy Head with Mounting Kit</td>
<td>25.00</td>
<td>B</td>
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</table>

### PHASE-LOK IV HEAD BRACKET

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Price</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>952-7721</td>
<td>For Mounting One Head with Tape Guides and Hold Down Spring (Heads not included)</td>
<td>30.00</td>
<td>B</td>
</tr>
<tr>
<td>952-7722</td>
<td>For Mounting Two Heads with Tape Guides and Hold Down Spring (Heads not included)</td>
<td>50.00</td>
<td>B</td>
</tr>
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</table>

### PLAYBACK AND RECORD HEADS

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Price</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM1B</td>
<td>Mono Playback Head for Series 400; 500; 303/305; 2000; 605/610; 1070</td>
<td>35.00</td>
<td>C</td>
</tr>
<tr>
<td>DM2RB</td>
<td>Mono Record Head for Series 400; 500; 2000; 605/610; 1070</td>
<td>35.00</td>
<td>C</td>
</tr>
<tr>
<td>D1SA</td>
<td>Stereo Playback Head for Series 500; 303/305; 2000 PS; 2000 RPS; 1070 PS</td>
<td>130.00</td>
<td>C</td>
</tr>
<tr>
<td>DM3RB</td>
<td>Stereo Record Head for Series 500D; 2000 RPS; 1070 RPS</td>
<td>130.00</td>
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**PLAYBACK AND RECORD HEADS (Continued)**

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<th>DESCRIPTION</th>
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<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1P</td>
<td>252-0007</td>
<td>Mono Playback Head for Series 3000; 4000; 5300; 5500</td>
<td>35.00</td>
<td>C</td>
</tr>
<tr>
<td>M1R</td>
<td>252-0008</td>
<td>Mono Record Head for Series 3000/4000; 5300; 5500</td>
<td>35.00</td>
<td>C</td>
</tr>
<tr>
<td>S1P</td>
<td>253-0004</td>
<td>Stereo Playback Head for Series 3000; 4000; 5300; 5500</td>
<td>130.00</td>
<td>C</td>
</tr>
<tr>
<td>S1R</td>
<td>253-0005</td>
<td>Stereo Record Head for Series 3000; 4000; 5300; 5500</td>
<td>130.00</td>
<td>C</td>
</tr>
<tr>
<td>DL2C</td>
<td>259-0005</td>
<td>Mono Erase/Record Head for Series 500, 1070 Delay</td>
<td>72.00</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>252-0009</td>
<td>Mono Erase/Record Head for Series 3000 Delay</td>
<td>76.00</td>
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</tr>
</tbody>
</table>

**DURACORE® HEADS FOR SERIES 3000/4000/5300/5500**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
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<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMP</td>
<td>252-0017</td>
<td>Mono Playback Duracore Head</td>
<td>50.00</td>
<td>C</td>
</tr>
<tr>
<td>LMR</td>
<td>252-0018</td>
<td>Mono Record Duracore Head</td>
<td>50.00</td>
<td>C</td>
</tr>
<tr>
<td>LSP</td>
<td>253-0014</td>
<td>Stereo Playback Duracore Head</td>
<td>160.00</td>
<td>C</td>
</tr>
<tr>
<td>LSR</td>
<td>253-0015</td>
<td>Stereo Record Duracore Head</td>
<td>160.00</td>
<td>C</td>
</tr>
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</table>

**MOTORS FOR SPOTMASTER CARTRIDGE MACHINES**

<table>
<thead>
<tr>
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<th>DESCRIPTION</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>382-2070</td>
<td>For 2100 Series, Single Speed 117V/60 Hz</td>
<td>210.00</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>382-2080</td>
<td>For 2100 Series, Single Speed 117V/50 Hz</td>
<td>250.00</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>382-2070</td>
<td>For 3000/4000 Series, single speed, 117V/60 Hz</td>
<td>235.00</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>382-2080</td>
<td>For 3000/4000 Series, single speed, 117V/50 Hz</td>
<td>312.00</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>382-2070</td>
<td>For 3000/4000 Series, dual speed, 117V/60 Hz</td>
<td>275.00</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>382-2080</td>
<td>For 3000/4000 Series, dual speed, 117V/50 Hz</td>
<td>325.00</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>382-1311</td>
<td>For 5300 Series, single speed, 117V/60 Hz</td>
<td>310.00</td>
<td>C</td>
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</tr>
<tr>
<td>382-1371</td>
<td>For 5300 Series, single speed, 220V/50 Hz</td>
<td>350.00</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>382-1511</td>
<td>For 5500 Series, single speed, 117V/60 Hz</td>
<td>450.00</td>
<td>C R</td>
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</tr>
<tr>
<td>382-1571</td>
<td>For 5500 Series, single speed, 220V/50 Hz</td>
<td>475.00</td>
<td>C</td>
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</tr>
<tr>
<td>384-0645</td>
<td>For 605C/610 Series, single speed, 117V/50/60 Hz</td>
<td>175.00</td>
<td>C</td>
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<tr>
<td>384-1052</td>
<td>For 400/500/2000 Series, single speed, 117V/50/60 Hz</td>
<td>100.00</td>
<td>C</td>
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</tr>
<tr>
<td>384-1054</td>
<td>For 400/500/2000 Series, single speed, 220V/50 Hz</td>
<td>120.00</td>
<td>C</td>
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</tr>
</tbody>
</table>

**RECOMMENDED SPARE PARTS KITS FOR CARTRIDGE MACHINES**

*Note: Recommended Spare Parts Kits do not include motors, plug-in P.C. Boards and modules. These should be selected elsewhere in the price list.*

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>830-0050</td>
<td>Kit for Model 2000 P Cartridge Machine</td>
<td>124.00</td>
<td>C</td>
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</tr>
<tr>
<td>830-0051</td>
<td>Kit for Model 2000 PA Cartridge Machine</td>
<td>135.00</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>830-0052</td>
<td>Kit for Model 2000 PS Cartridge Machine</td>
<td>222.00</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>830-0053</td>
<td>Kit for Model 2000 RP Cartridge Machine</td>
<td>162.00</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>830-0054</td>
<td>Kit for Model 2000 RPS Cartridge Machine</td>
<td>359.00</td>
<td>C</td>
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</tr>
<tr>
<td>830-0055</td>
<td>Kit for Model 3100 P Cartridge Machine</td>
<td>170.00</td>
<td>C</td>
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</tr>
<tr>
<td>830-0056</td>
<td>Kit for Model 3100 PS Cartridge Machine</td>
<td>282.00</td>
<td>C</td>
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</tr>
<tr>
<td>830-0057</td>
<td>Kit for Model 3200 P Cartridge Machine</td>
<td>170.00</td>
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<td>830-0058</td>
<td>Kit for Model 3200 PS Cartridge Machine</td>
<td>282.00</td>
<td>C</td>
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</tr>
<tr>
<td>830-0059</td>
<td>Kit for Model 3200 RP Cartridge Machine</td>
<td>226.00</td>
<td>C</td>
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<tr>
<td>830-0060</td>
<td>Kit for Model 3200 RPS Cartridge Machine</td>
<td>446.00</td>
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<tr>
<td>830-0061</td>
<td>Kit for Model 3200 RP/DL Cartridge Machine</td>
<td>307.00</td>
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<td>830-0062</td>
<td>Kit for Model 3300 P Cartridge Machine</td>
<td>170.00</td>
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<td>830-0063</td>
<td>Kit for Model 3300 PS Cartridge Machine</td>
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<td>Kit for Model 3300 RP Cartridge Machine</td>
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<td>Kit for Model 4200 PS Cartridge Machine</td>
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<td>Kit for Model 4300 RP Cartridge Machine</td>
<td>216.00</td>
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<td>830-0071</td>
<td>Kit for Model 4300 RPS Cartridge Machine</td>
<td>436.00</td>
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### RECOMMENDED SPARE PARTS KITS FOR CARTRIDGE MACHINES (Continued)

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<tr>
<td>830-0072</td>
<td>Kit for Model 5301 B Cartridge Machine</td>
<td>220.00</td>
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<td>830-0073</td>
<td>Kit for Model 5302 B Cartridge Machine</td>
<td>220.00</td>
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<td>830-0074</td>
<td>Kit for Model 5303 C Cartridge Machine</td>
<td>330.00</td>
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<td>830-0075</td>
<td>Kit for Model 5304 B Cartridge Machine</td>
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<td>830-0076</td>
<td>Kit for Model 5501 B Cartridge Machine</td>
<td>259.00</td>
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<td>830-0077</td>
<td>Kit for Model 5502 B Cartridge Machine</td>
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<td>830-0078</td>
<td>Kit for Model 5503 B Cartridge Machine</td>
<td>369.00</td>
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<tr>
<td>830-0079</td>
<td>Kit for Model 5504 B Cartridge Machine</td>
<td>369.00</td>
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<tr>
<td>830-0104</td>
<td>Kit for Model 2100P Cartridge Machine</td>
<td>123.00</td>
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<tr>
<td>830-0105</td>
<td>Kit for Model 2100PS Cartridge Machine</td>
<td>218.00</td>
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<tr>
<td>830-0106</td>
<td>Kit for Model 2100RP Cartridge Machine</td>
<td>203.00</td>
<td>C</td>
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<tr>
<td>830-0107</td>
<td>Kit for Model 2100RPS Cartridge Machine</td>
<td>393.00</td>
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<tr>
<td>830-0108</td>
<td>Kit for Model 505D Cartridge Machine</td>
<td>90.00</td>
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<tr>
<td>830-0109</td>
<td>Kit for Model 505DR Cartridge Machine</td>
<td>90.00</td>
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<tr>
<td>830-0110</td>
<td>Kit for Model 500D Cartridge Machine</td>
<td>125.00</td>
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<td>830-0111</td>
<td>Kit for Model 500DR Cartridge Machine</td>
<td>125.00</td>
<td>C</td>
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<tr>
<td>830-0112</td>
<td>Kit for Model 500D/DL Cartridge Machine</td>
<td>162.00</td>
<td>C</td>
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<tr>
<td>830-0113</td>
<td>Kit for Model 3300RP/DL Cartridge Machine</td>
<td>307.00</td>
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<tr>
<td>830-0114</td>
<td>Kit for Model 605C Cartridge Machine</td>
<td>162.00</td>
<td>C</td>
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<tr>
<td>830-0115</td>
<td>Kit for Model 610CR Cartridge Machine</td>
<td>323.00</td>
<td>C</td>
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<tr>
<td>830-0116</td>
<td>Kit for Model MRM-600A Cartridge Machine</td>
<td>14.00</td>
<td>C</td>
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<tr>
<td>830-0121</td>
<td>Kit for Model 3400RP/DL Cartridge Machine</td>
<td>307.00</td>
<td>C</td>
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<tr>
<td>803-0122</td>
<td>Kit for Model 3400P Cartridge Machine</td>
<td>170.00</td>
<td>C</td>
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<tr>
<td>830-0124</td>
<td>Kit for Model 3400RP Cartridge Machine</td>
<td>226.00</td>
<td>C</td>
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<tr>
<td>830-0120</td>
<td>Kit for Model 3400PS Cartridge Machine</td>
<td>282.00</td>
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<tr>
<td>830-0125</td>
<td>Kit for Model 3400RPS Cartridge Machine</td>
<td>446.00</td>
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**Note:** The above Recommended Spare Parts Kits do not include motors, plug-in P.C. Boards and modules. These should be selected elsewhere in the price list.
## SEQUENCERS/SWITCHERS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW5B</td>
<td>904-0005</td>
<td>605/610 Audio Switcher; switches any of five audio channels to program line; 600 ohm transformer equipped (use only with emitter follower out-put units 902-0605 or 902-0606; two required for 902-0610)</td>
<td>350.00</td>
<td>B R</td>
</tr>
<tr>
<td>SW5C</td>
<td>904-0012</td>
<td>500 Audio Switcher for up to 5 units</td>
<td>350.00</td>
<td>B R</td>
</tr>
<tr>
<td>SW5D</td>
<td>904-0009</td>
<td>2000 Audio Switcher for up to 5 units</td>
<td>350.00</td>
<td>B R</td>
</tr>
<tr>
<td>SW5E</td>
<td>904-5000</td>
<td>5300 Audio Switcher for 3-Decks</td>
<td>195.00</td>
<td>B R</td>
</tr>
<tr>
<td>SW5F</td>
<td>904-5001</td>
<td>5500 Audio Switcher for 5-Decks</td>
<td>250.00</td>
<td>B R</td>
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</table>

## REMOTE CONTROL

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE-102</td>
<td>904-0102</td>
<td>400 Series, 500 Series; Remote Control, 3 start/stop functions w/15 ft. cable</td>
<td>150.00</td>
<td>B R</td>
</tr>
<tr>
<td>BE-103</td>
<td>906-2022</td>
<td>200 Series, Remote Control Panel</td>
<td>150.00</td>
<td>B R</td>
</tr>
<tr>
<td>BE-106</td>
<td>904-0106</td>
<td>605 Remote Control, 5 start/stop functions and sequencing indicator, illuminated buttons w/15 ft. cable</td>
<td>400.00</td>
<td>B R</td>
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<tr>
<td>303D</td>
<td>904-0303</td>
<td>303D Remote Control Includes 15' of Cable</td>
<td>145.00</td>
<td>B R</td>
</tr>
<tr>
<td>305D</td>
<td>904-0305</td>
<td>305D Remote Control Includes 15' of Cable</td>
<td>175.00</td>
<td>B R</td>
</tr>
<tr>
<td>RC-1070</td>
<td>904-1070</td>
<td>1070 Remote Control, all functions; Suitable for adding to console or for rack mounting including 15' cable</td>
<td>175.00</td>
<td>B R</td>
</tr>
<tr>
<td>3000</td>
<td>906-3016</td>
<td>3000 Remote Control Panel, START for 5 Units</td>
<td>90.00</td>
<td>B R</td>
</tr>
<tr>
<td>3000</td>
<td>906-3019</td>
<td>3000 Remote Control Panel, Single Record/Playback Model</td>
<td>90.00</td>
<td>B R</td>
</tr>
<tr>
<td>3000</td>
<td>906-3020</td>
<td>Remote Control Panel, Single Playback (with cue tones)</td>
<td>100.00</td>
<td>B R</td>
</tr>
<tr>
<td>3000</td>
<td>906-3021</td>
<td>Remote Control Panel, Single Playback (without cue tones)</td>
<td>85.00</td>
<td>B R</td>
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<tr>
<td>3000</td>
<td>906-3028</td>
<td>Remote Control Panel with start/stop and fast forward switches for 5 Series 3000 or Series 4000 machines</td>
<td>175.00</td>
<td>B R</td>
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<tr>
<td>4000</td>
<td>906-4015</td>
<td>4000 Remote Control Panel, START for 5 Units</td>
<td>90.00</td>
<td>B R</td>
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<tr>
<td>4000</td>
<td>906-4016</td>
<td>4000 Remote Control Panel, Single Record/Playback Model</td>
<td>90.00</td>
<td>B R</td>
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<tr>
<td>5300</td>
<td>927-0047</td>
<td>Remote Control Panel for 5300 A/B Series</td>
<td>110.00</td>
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<tr>
<td>5300</td>
<td>927-0048</td>
<td>Remote Control Panel for 5300 A/B Series with Companion Record Amplifier</td>
<td>150.00</td>
<td>B R</td>
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<tr>
<td>BE-210</td>
<td>907-2115</td>
<td>Remote Control Panel for 2100 Series</td>
<td>150.00</td>
<td>B R</td>
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</table>

## SPOTMASTER® TELEPHONE INTERFACE SYSTEMS FOR USE WITH BROADCAST QUALITY TAPE CARTRIDGE MACHINES

**Note:** Telco 80/91 units used with ERC-L21 (RDL) Coupler

**TELCO 80** 904-0080 - Record/Play Telephone Answering Interface System for 400/500/600 Series Cartridge Machines includes counter 475.00 A R

**TELCO 91** 904-0091 - Record/Play Telephone Answering Interface System for 3000 and 4000 Series Cartridge Machines, includes counter 475.00 A R

**Note:** Telco units listed below used with ERC-L22 (RDM) coupler.

**III/B** 904-0003 - Telco Telephone Answering Accessory for 400/500/600 Series 220.00 A

**III/C** 904-0006 - Telco Telephone Answering Accessory w/manual-automatic switch and remote start for 400/500/600 Series 220.00 A

**IV/B** 904-0007 - Telco Telephone Answering Accessory for TEN/70 Series 220.00 A

**IV/C** 904-0008 - Telco Telephone Answering Accessory w/manual-automatic switch and remote start for TEN/70 Series 220.00 A

**V/B** 906-2015 - Telco Telephone Answering Accessory for Series 2000 175.00 A

**V/C** 906-2016 - Telco Telephone Answering Accessory w/manual-automatic switch and remote start for Series 2000 175.00 A
TELEPHONE INTERFACE SYSTEMS (Continued)

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>VI/B</td>
<td>906-3017</td>
<td>Telco Telephone Answering Accessory for Series 3000 and Series 4000</td>
<td>220.00</td>
<td>A</td>
</tr>
<tr>
<td>VI/C</td>
<td>906-3018</td>
<td>Telco Telephone Answering Accessory w/manual-automatic switch and remote start for Series 3000 and Series 4000</td>
<td>220.00</td>
<td>A</td>
</tr>
<tr>
<td>VII/B</td>
<td>906-3024</td>
<td>Telco Telephone Answering Accessory for Series 5300</td>
<td>220.00</td>
<td>A</td>
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<tr>
<td>VII/C</td>
<td>906-3025</td>
<td>Telco Telephone Answering Accessory w/manual-automatic switch and remote start for Series 5300B</td>
<td>220.00</td>
<td>A</td>
</tr>
<tr>
<td>VIII/B</td>
<td>904-0010</td>
<td>Telco Telephone Answering Accessory for Series 5500</td>
<td>220.00</td>
<td>A</td>
</tr>
<tr>
<td>VIII/C</td>
<td>906-3026</td>
<td>Telco Telephone Answering Accessory w/manual-automatic switch and remote start for Series 5500</td>
<td>220.00</td>
<td>A</td>
</tr>
<tr>
<td>TC-4</td>
<td>290-0404</td>
<td>Automatic Counter for use with Telco VIII/B and C, IV/B and C, VI/B and C, and VII/C. Note: Requires separate mounting panel by customer.</td>
<td>55.00</td>
<td>A</td>
</tr>
<tr>
<td>ERC-L21</td>
<td>829-0126</td>
<td>ERC-L21 (RDL) Telephone Line Coupler for playback only, one line</td>
<td>275.00</td>
<td>C R</td>
</tr>
<tr>
<td>ERC-L22</td>
<td>829-0127</td>
<td>ERC-L22 (RDM) Telephone Line Coupler for record and playback, one line</td>
<td>350.00</td>
<td>C R</td>
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STUDIO AND CARTRIDGE ACCESSORIES

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<tbody>
<tr>
<td>TW-100</td>
<td>904-0001</td>
<td>Tape Cartridge Winder 115V, 50/60 Hz</td>
<td>250.00</td>
<td>B R</td>
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<tr>
<td>TW-100A</td>
<td>904-0001A</td>
<td>Tape Cartridge Winder 220V, 50 Hz</td>
<td>315.00</td>
<td>B R</td>
</tr>
<tr>
<td>TW-200</td>
<td>904-0002</td>
<td>Tape Cartridge Winder w/Timer, 115V, 50/60 Hz</td>
<td>315.00</td>
<td>B R</td>
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<tr>
<td>TW-200A</td>
<td>904-0002A</td>
<td>Tape Cartridge Winder w/Timer, 220V, 50/60 Hz</td>
<td>380.00</td>
<td>B R</td>
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<tr>
<td>TI-50</td>
<td>830-0001</td>
<td>Calibrated Tape Timer</td>
<td>105.00</td>
<td>B</td>
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<tr>
<td>SF-101-B</td>
<td>829-0101</td>
<td>Splice Detector, Opto-Electronic, 115 V., 60 Hz, For &quot;A&quot; Cartridges only</td>
<td>310.00</td>
<td>B</td>
</tr>
<tr>
<td>SF-101-BX</td>
<td>829-0102</td>
<td>Splice Detector, Opto-Electronic, 220 V., 50 Hz, For &quot;A&quot; Cartridges only (includes separate 220V./115V, step down transformer)</td>
<td>375.00</td>
<td>B</td>
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<tr>
<td>65-390</td>
<td>829-0390</td>
<td>Wow &amp; Flutter Meter, 110 V. 60 Hz</td>
<td>450.00</td>
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DEMAGNETIZERS AND ERASERS

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<tbody>
<tr>
<td>QM202</td>
<td>809-0005</td>
<td>Professional Head Demagnetizer, 110-120V, 50/60 Hz</td>
<td>21.00</td>
<td>C R</td>
</tr>
<tr>
<td>QM203</td>
<td>809-0006</td>
<td>Professional Head Demagnetizer, 230-250V</td>
<td>23.00</td>
<td>C R</td>
</tr>
<tr>
<td>200-3T</td>
<td>820-0200</td>
<td>Bulk Tape Eraser, Hand Held 115V, 50/60 Hz</td>
<td>40.00</td>
<td>B</td>
</tr>
<tr>
<td>220-3T</td>
<td>820-0220</td>
<td>Bulk Tape Eraser, Hand Held 220V, 50/60 Hz</td>
<td>50.00</td>
<td>B</td>
</tr>
<tr>
<td>TD1A</td>
<td>820-0300</td>
<td>Bulk Tape Eraser, Heavy Duty, Table Top 115V, 50/60 Hz</td>
<td>100.00</td>
<td>B R</td>
</tr>
<tr>
<td>TD1AF</td>
<td>820-0301</td>
<td>Bulk Tape Eraser, Heavy Duty, Table Top 220V, 50/60 Hz</td>
<td>115.00</td>
<td>B R</td>
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SPOTMASTER® CARTRIDGE STORAGE RACKS

<table>
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<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>RM10</td>
<td>818-0010</td>
<td>Stores 10, A Size Cartridges, Rack Mounting (5¼&quot; high) (For use with RA-70 Rack Frame)</td>
<td>55.00</td>
<td>B</td>
</tr>
<tr>
<td>RM20</td>
<td>818-0020</td>
<td>Stores 20, A Size Cartridges, Rack Mounting (5¼&quot; high)</td>
<td>115.00</td>
<td>B R</td>
</tr>
<tr>
<td>RS25</td>
<td>816-0025</td>
<td>Wire Rack Section, holds 25 A Size Cartridges</td>
<td>25.00</td>
<td>B</td>
</tr>
<tr>
<td>RM100</td>
<td>810-0100</td>
<td>Wall Mounting, Formica Covered, holds 100 A Size carriages</td>
<td>95.00</td>
<td>B</td>
</tr>
<tr>
<td>DM20</td>
<td>812-0655</td>
<td>Wall or Table Mounting; walnut cabinet, holds 20 A Size cartridges</td>
<td>20.00</td>
<td>B</td>
</tr>
<tr>
<td>DM40</td>
<td>812-0650</td>
<td>Table Top Lazy Susan, holds 40 A Size carriages</td>
<td>40.00</td>
<td>B</td>
</tr>
<tr>
<td>DM72</td>
<td>812-0072</td>
<td>Lazy Susan Module, Formica Covered for table top use, holds 72 A Size carriages</td>
<td>100.00</td>
<td>B R</td>
</tr>
<tr>
<td>DM200</td>
<td>812-0200</td>
<td>As per above, holds 200 A Size cartridges</td>
<td>175.00</td>
<td>B R</td>
</tr>
<tr>
<td>LS200</td>
<td>814-0200</td>
<td>Lazy Susan Wire Unit, floor stand w/heavy duty casters, holds 200 A Size carriages</td>
<td>260.00</td>
<td>B R</td>
</tr>
<tr>
<td>MODEL</td>
<td>STOCK NO.</td>
<td>DESCRIPTION</td>
<td>PRICE PER SHEET</td>
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<tr>
<td>TAPE TAGS (8 per sheet)</td>
<td>Color</td>
<td>Price Per Sheet</td>
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</tr>
<tr>
<td>834-0000</td>
<td>Black</td>
<td></td>
<td>1 to 49 Sheets (per sheet)</td>
<td>0.20 B</td>
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<tr>
<td>834-0001</td>
<td>Brown</td>
<td></td>
<td>50 to 299 Sheets (per sheet)</td>
<td>0.16 B</td>
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<tr>
<td>834-0002</td>
<td>Red</td>
<td></td>
<td>300 to 499 Sheets (per sheet)</td>
<td>0.15 B</td>
</tr>
<tr>
<td>834-0003</td>
<td>Orange</td>
<td></td>
<td>500+ Sheets (per sheet)</td>
<td>0.14 B</td>
</tr>
<tr>
<td>834-0004</td>
<td>Yellow</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>834-0005</td>
<td>Green</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>834-0006</td>
<td>Blue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>834-0007</td>
<td>Purple</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MAINTENANCE ACCESSORIES**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>R26038</td>
<td>Tape Splicer</td>
<td>12.00</td>
</tr>
<tr>
<td>R23030</td>
<td>Mylar Splicing Tape (3/4 x 100”)</td>
<td>2.00</td>
</tr>
<tr>
<td>BE903</td>
<td>Cleaning Fluid, 16 oz. (cannot be shipped by air)</td>
<td>8.00</td>
</tr>
<tr>
<td>BE903</td>
<td>Cleaning Fluid, 32 oz. (cannot be shipped by air)</td>
<td>13.00</td>
</tr>
<tr>
<td>BE009</td>
<td>Head and tape alignment gauge</td>
<td>20.00</td>
</tr>
<tr>
<td>809-0018</td>
<td>Recorder Care Manual</td>
<td>1.00</td>
</tr>
<tr>
<td>809-0019</td>
<td>Professional Tape Head Replacement Guide</td>
<td>4.00</td>
</tr>
<tr>
<td>809-0020</td>
<td>Nortronics Recorder Head Maintenance Kit for 110-120V, 50/60 Hz.</td>
<td>330.00</td>
</tr>
<tr>
<td>809-0021</td>
<td>Nortronics Recorder Head Maintenance Kit for 230-250 VAC.</td>
<td>288.00</td>
</tr>
</tbody>
</table>

**BULK CARTRIDGE TAPES**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>3M 823-1800</td>
<td>Scotch Lubricated Tape, 1 mil polyester 1800 ft., 7” Reel (for cartridges)</td>
<td>10.00</td>
</tr>
<tr>
<td>Q17 808-0013</td>
<td>Audiopak lubricated Tape, 7” x 1800’ Reel (for cartridges)</td>
<td>9.00</td>
</tr>
<tr>
<td>808-0004</td>
<td>Reproduce Alignment Test Tape, Frequency Response, Distortion, level, 3180-50 Microsecond, NAB Mono/Stereo Compatible.</td>
<td>50.00</td>
</tr>
<tr>
<td>808-0005</td>
<td>Reproduce Alignment Test Tape, Distortion, level, CCIR-IEC.</td>
<td>90.00</td>
</tr>
<tr>
<td>65-452</td>
<td>Wow &amp; Flutter Test Tape, 3150 Hz, Mono or Stereo, NAB</td>
<td>40.00</td>
</tr>
<tr>
<td>65-457</td>
<td>Cue Tone/Logging Calibration Cartridge, NAB</td>
<td>50.00</td>
</tr>
</tbody>
</table>

**TEST TAPES (7.5 IPS)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>STL-31-F1 808-0004</td>
<td>Reproduce Alignment Test Tape, Frequency Response, Distortion, level, 3180-50 Microsecond, NAB Mono/Stereo Compatible.</td>
<td>50.00</td>
</tr>
<tr>
<td>MRL-21T102 808-0005</td>
<td>Reproduce Alignment Test Tape, Distortion, level, CCIR-IEC.</td>
<td>90.00</td>
</tr>
<tr>
<td>65-452 808-0008</td>
<td>Reproduce Alignment Test Tape, Distortion, level, CCIR-IEC.</td>
<td>40.00</td>
</tr>
<tr>
<td>65-457 808-0011</td>
<td>Reproduce Alignment Test Tape, Distortion, level, CCIR-IEC.</td>
<td>50.00</td>
</tr>
</tbody>
</table>

**Note:** 3.75 IPS Test Tapes and single cue tone (7.5 IPS) Test Tapes are available on request.

**ALIGNMENT GAUGES**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE-009 836-0009</td>
<td>Spotmaster Head and Tape Alignment Gauge, including Height and Right Angle Zenith</td>
<td>20.00</td>
</tr>
<tr>
<td>836-0005</td>
<td>Pressure Roller to Capstan Alignment Gauge for 2100, 3000 and 4000 Series Cartridge Machines</td>
<td>12.00</td>
</tr>
<tr>
<td>836-0007</td>
<td>Pressure Roller to Capstan Alignment Gauge for 5000 Series Cartridge Machine</td>
<td>12.00</td>
</tr>
<tr>
<td>404-0001</td>
<td>Pressure Roller for all Spotmaster Cartridge Machines</td>
<td>6.00</td>
</tr>
</tbody>
</table>
## Fidelipac Cartridges - 300, 600 & 1200 Series

### Loaded Cartridges (At 7.5 IPS)

<table>
<thead>
<tr>
<th>Model</th>
<th>Stock No.</th>
<th>Description</th>
<th>Professional Net</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 Series</td>
<td>800-0013</td>
<td>20 Seconds (13 feet)</td>
<td>4.02</td>
<td>BR</td>
</tr>
<tr>
<td>&quot;A Size&quot;</td>
<td>800-0019</td>
<td>30 Seconds</td>
<td>4.10</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-0025</td>
<td>40 Seconds (25 feet)</td>
<td>4.11</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-0044</td>
<td>70 Seconds (44 feet)</td>
<td>4.23</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-0057</td>
<td>90 Seconds (57 feet)</td>
<td>4.33</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-0063</td>
<td>100 Seconds (63 feet)</td>
<td>4.42</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-0088</td>
<td>140 Seconds (88 feet)</td>
<td>4.55</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-0094</td>
<td>2 1/2 Minutes (94 feet)</td>
<td>4.62</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-0113</td>
<td>3 Minutes (113 feet)</td>
<td>4.76</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-0132</td>
<td>3 1/2 Minutes (132 feet)</td>
<td>4.89</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-0150</td>
<td>4 Minutes (150 feet)</td>
<td>5.03</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-0169</td>
<td>4 1/2 Minutes (169 feet)</td>
<td>5.16</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-0188</td>
<td>5 Minutes (188 feet)</td>
<td>5.31</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-0207</td>
<td>5 1/2 Minutes (207 feet)</td>
<td>5.46</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-0285</td>
<td>7 1/2 Minutes (285 feet)</td>
<td>5.84</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-0300</td>
<td>8 Minutes (300 feet)</td>
<td>5.97</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-0375</td>
<td>10 Minutes (375 feet)</td>
<td>6.38</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-0394</td>
<td>10 1/2 Minutes (394 feet)</td>
<td>6.52</td>
<td>BR</td>
</tr>
<tr>
<td>600 Series</td>
<td>801-0038</td>
<td>60 Seconds (38 feet)</td>
<td>6.94</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>801-0063</td>
<td>15 Minutes (563 feet)</td>
<td>12.26</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>801-0080</td>
<td>16 Minutes (600 feet)</td>
<td>12.66</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>801-0750</td>
<td>20 Minutes (750 feet)</td>
<td>13.63</td>
<td>BR</td>
</tr>
</tbody>
</table>

**Note:** 10% Discount on quantities of 100 or more cartridges one type or mixed—loaded or unloaded.

### 1200 Series ("C Size")

<table>
<thead>
<tr>
<th>Stock No.</th>
<th>Description</th>
<th>Professional Net</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>802-1052</td>
<td>28 Minutes (1052 feet)</td>
<td>18.83</td>
<td>BR</td>
</tr>
<tr>
<td>802-1125</td>
<td>30 Minutes (1125 feet)</td>
<td>19.59</td>
<td>BR</td>
</tr>
<tr>
<td>802-1163</td>
<td>31 Minutes (1163 feet)</td>
<td>20.22</td>
<td>BR</td>
</tr>
<tr>
<td>802-1200</td>
<td>32 Minutes (1200 feet)</td>
<td>20.85</td>
<td>BR</td>
</tr>
<tr>
<td>802-1350</td>
<td>36 Minutes (1350 feet)</td>
<td>22.00</td>
<td>BR</td>
</tr>
<tr>
<td>802-1425</td>
<td>38 Minutes (1425 feet)</td>
<td>22.83</td>
<td>BR</td>
</tr>
<tr>
<td>802-1500</td>
<td>40 Minutes (1500 feet)</td>
<td>23.68</td>
<td>BR</td>
</tr>
</tbody>
</table>

**Note:** For Cartridges loaded with H.O.T. Tape, add "H" to part number and increase cost by 15%.

## Fidelipac Cartridges - 350 Series

### Loaded Cartridges

<table>
<thead>
<tr>
<th>Model</th>
<th>Stock No.</th>
<th>Description</th>
<th>Professional Net</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>350 Series</td>
<td>800-5025</td>
<td>40 Seconds (25 feet)</td>
<td>5.05</td>
<td>BR</td>
</tr>
<tr>
<td>&quot;A Size&quot;</td>
<td>800-5044</td>
<td>70 Seconds (44 feet)</td>
<td>5.14</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-5057</td>
<td>90 Seconds (57 feet)</td>
<td>5.21</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-5063</td>
<td>100 Seconds (63 feet)</td>
<td>5.25</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-5094</td>
<td>2½ Minutes (94 feet)</td>
<td>5.41</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-5113</td>
<td>3 Minutes (113 feet)</td>
<td>5.52</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-5132</td>
<td>3 ½ Minutes (132 feet)</td>
<td>5.62</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-5150</td>
<td>4 Minutes (150 feet)</td>
<td>5.69</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-5169</td>
<td>4 ½ Minutes (169 feet)</td>
<td>5.81</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-5188</td>
<td>5 Minutes (188 feet)</td>
<td>5.92</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-5207</td>
<td>5 ½ Minutes (207 feet)</td>
<td>6.01</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-5285</td>
<td>7 ½ Minutes (285 feet)</td>
<td>6.37</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-5300</td>
<td>8 Minutes (300 feet)</td>
<td>6.45</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-5375</td>
<td>10 Minutes (375 feet)</td>
<td>6.79</td>
<td>BR</td>
</tr>
<tr>
<td></td>
<td>800-5394</td>
<td>10 ½ Minutes (394 feet)</td>
<td>6.89</td>
<td>BR</td>
</tr>
</tbody>
</table>

**Note:** For Cartridges loaded with H.O.T. Tape, add "H" to part number and increase cost by 15%.

## Fidelipac Cartridges - Master Cart Series

### Master Cart Series

<table>
<thead>
<tr>
<th>Stock No.</th>
<th>Description</th>
<th>Professional Net</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>800-8013</td>
<td>20 Seconds (13 feet)</td>
<td>4.22</td>
<td>BR</td>
</tr>
<tr>
<td>800-8025</td>
<td>40 Seconds (25 feet)</td>
<td>4.31</td>
<td>BR</td>
</tr>
<tr>
<td>800-8044</td>
<td>70 Seconds (44 feet)</td>
<td>4.44</td>
<td>BR</td>
</tr>
<tr>
<td>800-8057</td>
<td>90 Seconds (57 feet)</td>
<td>4.55</td>
<td>BR</td>
</tr>
<tr>
<td>800-8063</td>
<td>100 Seconds (63 feet)</td>
<td>4.63</td>
<td>BR</td>
</tr>
<tr>
<td>800-8088</td>
<td>140 Seconds (88 feet)</td>
<td>4.77</td>
<td>BR</td>
</tr>
<tr>
<td>800-8094</td>
<td>2 ½ Minutes (94 feet)</td>
<td>4.85</td>
<td>BR</td>
</tr>
<tr>
<td>800-8113</td>
<td>3 Minutes (113 feet)</td>
<td>4.99</td>
<td>BR</td>
</tr>
<tr>
<td>800-8132</td>
<td>3 ½ Minutes (132 feet)</td>
<td>5.11</td>
<td>BR</td>
</tr>
<tr>
<td>800-8150</td>
<td>4 Minutes (150 feet)</td>
<td>5.24</td>
<td>BR</td>
</tr>
<tr>
<td>800-8169</td>
<td>4 ½ Minutes (169 feet)</td>
<td>5.38</td>
<td>BR</td>
</tr>
<tr>
<td>800-8188</td>
<td>5 Minutes (188 feet)</td>
<td>5.52</td>
<td>BR</td>
</tr>
<tr>
<td>800-8207</td>
<td>5 ½ Minutes (207 feet)</td>
<td>5.65</td>
<td>BR</td>
</tr>
<tr>
<td>800-8285</td>
<td>7 ½ Minutes (285 feet)</td>
<td>6.01</td>
<td>BR</td>
</tr>
<tr>
<td>800-8300</td>
<td>8 Minutes (300 feet)</td>
<td>6.15</td>
<td>BR</td>
</tr>
<tr>
<td>800-8375</td>
<td>10 Minutes (375 feet)</td>
<td>6.52</td>
<td>BR</td>
</tr>
<tr>
<td>800-8394</td>
<td>10 ½ Minutes (394 feet)</td>
<td>6.67</td>
<td>BR</td>
</tr>
</tbody>
</table>

**Note:** For Cartridges loaded with H.O.T. Tape, add "H" to part number and increase cost by 15%.

---

*Note: Data reflects professional net prices and code.*
## Empty Cartridges

<table>
<thead>
<tr>
<th>Model</th>
<th>Stock No.</th>
<th>Description</th>
<th>Professional Net</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>300, A Size</td>
<td>800-0000</td>
<td>Fidelipac Unloaded Cartridge</td>
<td>3.57</td>
<td>B R</td>
</tr>
<tr>
<td>600, B Size</td>
<td>801-0000</td>
<td>Fidelipac Unloaded Cartridge</td>
<td>6.30</td>
<td>B R</td>
</tr>
<tr>
<td>1200, C Size</td>
<td>802-0000</td>
<td>Fidelipac Unloaded Cartridge</td>
<td>8.66</td>
<td>B R</td>
</tr>
<tr>
<td>350, A Size</td>
<td>800-5000</td>
<td>Fidelipac Unloaded Cartridge</td>
<td>3.79</td>
<td>B R</td>
</tr>
<tr>
<td>Master, A Size</td>
<td>800-8000</td>
<td>Fidelipac Unloaded Cartridge</td>
<td>3.82</td>
<td>B R</td>
</tr>
<tr>
<td>A2, A Size</td>
<td>800-1000</td>
<td>Audiopak Unloaded Cartridge</td>
<td>2.57</td>
<td>B</td>
</tr>
</tbody>
</table>

## Specialy Wound Cartridges

<table>
<thead>
<tr>
<th>Model</th>
<th>Stock No.</th>
<th>Description</th>
<th>Professional Net</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>300DL</td>
<td>800-0004</td>
<td>6 Second Delay Cartridge for use with SPOTMASTER delay machines</td>
<td>7.50</td>
<td>B R</td>
</tr>
<tr>
<td></td>
<td>800-3395</td>
<td>Specially wound delay cartridges under 20 seconds (specify time desired)</td>
<td>20.00</td>
<td>B R</td>
</tr>
</tbody>
</table>

## Audiopak Cartridges - A2 Series

### A2 Series

<table>
<thead>
<tr>
<th>Stock No.</th>
<th>Description</th>
<th>Professional Net</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>800-1006</td>
<td>10 Seconds (6.5 feet)</td>
<td>3.35</td>
<td>B R</td>
</tr>
<tr>
<td>800-1013</td>
<td>20 Seconds (13 feet)</td>
<td>3.37</td>
<td>B R</td>
</tr>
<tr>
<td>800-1022</td>
<td>35 Seconds (22 feet)</td>
<td>3.41</td>
<td>B R</td>
</tr>
<tr>
<td>800-1025</td>
<td>40 Seconds (25 feet)</td>
<td>3.46</td>
<td>B R</td>
</tr>
<tr>
<td>800-1041</td>
<td>65 Seconds (41 feet)</td>
<td>3.50</td>
<td>B R</td>
</tr>
<tr>
<td>800-1044</td>
<td>70 Seconds (44 feet)</td>
<td>3.51</td>
<td>B R</td>
</tr>
<tr>
<td>800-1057</td>
<td>90 Seconds (57 feet)</td>
<td>3.59</td>
<td>B R</td>
</tr>
<tr>
<td>800-1063</td>
<td>100 Seconds (63 feet)</td>
<td>3.64</td>
<td>B R</td>
</tr>
<tr>
<td>800-1088</td>
<td>140 Seconds (86 feet)</td>
<td>3.74</td>
<td>B R</td>
</tr>
<tr>
<td>800-1094</td>
<td>2.5 Minutes (94 feet)</td>
<td>3.77</td>
<td>B R</td>
</tr>
<tr>
<td>800-1113</td>
<td>3.0 Minutes (113 feet)</td>
<td>3.86</td>
<td>B R</td>
</tr>
<tr>
<td>800-1132</td>
<td>3.5 Minutes (132 feet)</td>
<td>3.94</td>
<td>B R</td>
</tr>
<tr>
<td>800-1150</td>
<td>4.0 Minutes (150 feet)</td>
<td>4.02</td>
<td>B R</td>
</tr>
<tr>
<td>800-1169</td>
<td>4.5 Minutes (169 feet)</td>
<td>4.10</td>
<td>B R</td>
</tr>
<tr>
<td>800-1207</td>
<td>5.5 Minutes (207 feet)</td>
<td>4.28</td>
<td>B R</td>
</tr>
<tr>
<td>800-1282</td>
<td>7.5 Minutes (282 feet)</td>
<td>4.55</td>
<td>B R</td>
</tr>
<tr>
<td>800-1319</td>
<td>8.5 Minutes (319 feet)</td>
<td>4.68</td>
<td>B R</td>
</tr>
<tr>
<td>800-1394</td>
<td>10.5 Minutes (394 feet)</td>
<td>4.97</td>
<td>B R</td>
</tr>
</tbody>
</table>

Note: Minimum order 24 of each type.

## Audiopak Cartridges - AA-3 Series

### AA-3 Series

<table>
<thead>
<tr>
<th>Stock No.</th>
<th>Description</th>
<th>Professional Net</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>800-3006</td>
<td>10 Seconds (6.5 feet)</td>
<td>4.28</td>
<td>B R</td>
</tr>
<tr>
<td>800-3013</td>
<td>20 Seconds (13 feet)</td>
<td>4.30</td>
<td>B R</td>
</tr>
<tr>
<td>800-3022</td>
<td>35 Seconds (22 feet)</td>
<td>4.39</td>
<td>B R</td>
</tr>
<tr>
<td>800-3025</td>
<td>40 Seconds (25 feet)</td>
<td>4.41</td>
<td>B R</td>
</tr>
<tr>
<td>800-3041</td>
<td>65 Seconds (41 feet)</td>
<td>4.47</td>
<td>B R</td>
</tr>
<tr>
<td>800-3044</td>
<td>70 Seconds (44 feet)</td>
<td>4.52</td>
<td>B R</td>
</tr>
<tr>
<td>800-3057</td>
<td>90 Seconds (57 feet)</td>
<td>4.60</td>
<td>B R</td>
</tr>
<tr>
<td>800-3063</td>
<td>100 Seconds (63 feet)</td>
<td>4.67</td>
<td>B R</td>
</tr>
<tr>
<td>800-3088</td>
<td>140 Seconds (86 feet)</td>
<td>4.77</td>
<td>B R</td>
</tr>
<tr>
<td>800-3094</td>
<td>2.5 Minutes (150 Seconds) (94 feet)</td>
<td>4.86</td>
<td>B R</td>
</tr>
<tr>
<td>800-3113</td>
<td>3.0 Minutes (180 Seconds) (113 feet)</td>
<td>4.98</td>
<td>B R</td>
</tr>
<tr>
<td>800-3132</td>
<td>3.5 Minutes (210 Seconds) (132 feet)</td>
<td>5.05</td>
<td>B R</td>
</tr>
<tr>
<td>800-3150</td>
<td>4.0 Minutes (240 Seconds) (150 feet)</td>
<td>5.15</td>
<td>B R</td>
</tr>
<tr>
<td>800-3169</td>
<td>4.5 Minutes (270 Seconds) (169 feet)</td>
<td>5.26</td>
<td>B R</td>
</tr>
<tr>
<td>800-3207</td>
<td>5.5 Minutes (330 Seconds) (207 feet)</td>
<td>5.49</td>
<td>B R</td>
</tr>
<tr>
<td>800-3282</td>
<td>7.5 Minutes (450 Seconds) (282 feet)</td>
<td>5.82</td>
<td>B R</td>
</tr>
<tr>
<td>800-3319</td>
<td>8.5 Minutes (510 Seconds) (319 feet)</td>
<td>6.01</td>
<td>B R</td>
</tr>
<tr>
<td>800-3394</td>
<td>10.5 Minutes (630 Seconds) (394 feet)</td>
<td>6.38</td>
<td>B R</td>
</tr>
</tbody>
</table>

Note: Minimum order 24 of each type.
## 150 SERIES MONO AUDIO CONSOLES

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>5M150</td>
<td>938-0531</td>
<td>5-Mixer Monophonic Console, Sealed Pots, Dual Channel</td>
<td>$1695.00</td>
<td>A R</td>
</tr>
<tr>
<td>8M150</td>
<td>938-0831</td>
<td>8-Mixer Monophonic Console, Sealed Pots, Dual Channel</td>
<td>2195.00</td>
<td>A R</td>
</tr>
</tbody>
</table>

### OPTIONS AND ACCESSORIES
- **270-0007** Second Muting Relay For 5M150 and 8M150
- **838-0200** Additional Cost For 230 vac/50 Hz Power Source
  *Supplied With One Muting Relay*

## 150 SERIES STEREO AUDIO CONSOLES

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>5S150</td>
<td>938-0530</td>
<td>5-Mixer Stereophonic Console, Sealed Pots</td>
<td>2250.00</td>
<td>A R</td>
</tr>
<tr>
<td>8S150</td>
<td>938-0830</td>
<td>8-Mixer Stereophonic Console, Sealed Pots</td>
<td>2995.00</td>
<td>A</td>
</tr>
</tbody>
</table>

### OPTIONS AND ACCESSORIES
- **918-3604** Line Amplifier For Stereo Audition Channel 5S150 And 8S150 (2 Required) For Dual Channel Operation.
- **918-3602** Mono Matrix PC Board for 5S150 And 8S150
- **270-0007** Second Muting Relay For 5S150 And 8S150.
- **838-0200** Additional Cost For 230 vac/50 Hz Power Source
  *Supplied With One Muting Relay* 

## 250 SERIES MONO AUDIO CONSOLES

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>5M250</td>
<td>938-0541</td>
<td>5-Mixer, Deluxe, Monophonic Console, Step type Attenuators, Dual Channel</td>
<td>2250.00</td>
<td>A R</td>
</tr>
<tr>
<td>8M250</td>
<td>938-0841</td>
<td>8-Mixer, Deluxe Monophonic Console, Step type Attenuators, Dual Channel</td>
<td>3195.00</td>
<td>A R</td>
</tr>
<tr>
<td>10M250**</td>
<td>938-1041</td>
<td>10-Mixer, Deluxe Monophonic Console, Step type Attenuators, Dual Channel</td>
<td>3695.00</td>
<td>A R</td>
</tr>
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</table>

### OPTIONS AND ACCESSORIES
- **838-0200** Additional Cost For 230 vac/50 Hz Power Source
  *Supplied With 3 Muting Relays*
  **Available in June 1980**

## 250 SERIES STEREO AUDIO CONSOLES

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
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<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>5S250</td>
<td>938-0540</td>
<td>5-Mixer Deluxe Stereophonic Console, Step type Attenuators, Dual Channel</td>
<td>2995.00</td>
<td>A R</td>
</tr>
<tr>
<td>8S250</td>
<td>938-0840</td>
<td>8-Mixer Deluxe Stereophonic Console, Step type Attenuators, Dual Channel</td>
<td>4195.00</td>
<td>A R</td>
</tr>
<tr>
<td>10S250**</td>
<td>938-1040</td>
<td>10-Mixer Deluxe Stereophonic Console, Step type Attenuators, Dual Channel</td>
<td>4695.00</td>
<td>A R</td>
</tr>
</tbody>
</table>

### OPTIONS AND ACCESSORIES
- **918-3602** Mono Matrix PC Board For 5S250 And 8S250
- **838-0200** Additional Cost For 230 vac/50 Hz Power Source
  *Supplied With 3 Muting Relays*
  **Available in June, 1980**

## 50 SERIES MONO AND STEREO CONSOLES

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>4M50</td>
<td>938-0450</td>
<td>MONO FOUR 4-Mixer Monophonic Console</td>
<td>825.00</td>
<td>A R</td>
</tr>
<tr>
<td>4M50R</td>
<td>938-04510</td>
<td>MONO FOUR Rack Mount 4-Mixer Monophonic Console</td>
<td>875.00</td>
<td>A R</td>
</tr>
<tr>
<td>4S50</td>
<td>938-0452</td>
<td>STEREO FOUR 4-Mixer Stereophonic Console</td>
<td>1595.00</td>
<td>A R</td>
</tr>
<tr>
<td>4S50R</td>
<td>938-0453</td>
<td>STEREO FOUR Rack Mount 4-Mixer Stereophonic Console</td>
<td>1625.00</td>
<td>A R</td>
</tr>
<tr>
<td>838-0201</td>
<td>838-0202</td>
<td>Additional Cost for 230 VAC/50 Hz Power Source, 4M50 Series</td>
<td>100.00</td>
<td>A R</td>
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## VERSA CON AUDIO CONSOLE

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
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<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>4V50</td>
<td>938-2000</td>
<td>4-Mixer Mono Console with Rack Mount Adapters</td>
<td>1150.00</td>
<td>A R</td>
</tr>
<tr>
<td>903-0018</td>
<td>838-0202</td>
<td>Additional Cost for 220 VAC/50 Hz Power Source</td>
<td>100.00</td>
<td>A R</td>
</tr>
<tr>
<td>MODEL</td>
<td>STOCK NO.</td>
<td>DESCRIPTION</td>
<td>PROFESSIONAL NET</td>
<td>CODE</td>
</tr>
<tr>
<td>---------</td>
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<td>-------------------------------------------------------</td>
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<td>------</td>
</tr>
<tr>
<td>10M350</td>
<td>938-1051</td>
<td>10-Mixer, Slider-Fader, Dual-Channel, Monophonic Console</td>
<td>3595.00</td>
<td>A</td>
</tr>
<tr>
<td>10S350</td>
<td>938-1050</td>
<td>10-Mixer, Slider-Fader, Dual-Channel Stereophonic Console</td>
<td>4695.00</td>
<td>A R</td>
</tr>
</tbody>
</table>

**OPTIONS AND ACCESSORIES**

<table>
<thead>
<tr>
<th>CODE</th>
<th>DESCRIPTION</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>918-3602</td>
<td>Mono Matrix PC Board For 10S350.</td>
<td>110.00</td>
</tr>
<tr>
<td>838-0200</td>
<td>Additional Cost For 230 vac/50 Hz. Power Source</td>
<td>100.00</td>
</tr>
</tbody>
</table>

## 4000 SERIES SLIDE MIXER AUDIO CONSOLES

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML-4000</td>
<td>938-4000</td>
<td>Monaural dual-channel console chassis with provision for accepting up to 12 input modules. (Select modules as required.)</td>
<td>3000.00</td>
<td>B R</td>
</tr>
<tr>
<td>SL-4100</td>
<td>938-4100</td>
<td>Stereo dual-channel console chassis with provision for accepting up to 12 input modules. (Select modules as required.)</td>
<td>3500.00</td>
<td>B R</td>
</tr>
<tr>
<td>4021</td>
<td>980-4021</td>
<td>Mono Input Mixing Module, with muting logic.</td>
<td>425.00</td>
<td>B</td>
</tr>
<tr>
<td>4023</td>
<td>980-4023</td>
<td>Mono Input Mixing Module, less muting logic.</td>
<td>400.00</td>
<td>B</td>
</tr>
<tr>
<td>4025</td>
<td>980-4025</td>
<td>Mono Remote Input Module (feeds mono Input Mixing Module).</td>
<td>230.00</td>
<td>B</td>
</tr>
<tr>
<td>4022</td>
<td>980-4022</td>
<td>Stereo Input Mixing Module, with muting logic.</td>
<td>530.00</td>
<td>B</td>
</tr>
<tr>
<td>4024</td>
<td>980-4024</td>
<td>Stereo Input Mixing Module, less muting logic.</td>
<td>500.00</td>
<td>B</td>
</tr>
<tr>
<td>4026</td>
<td>980-4026</td>
<td>Stereo Remote Input Module (feeds stereo Input Mixing Module).</td>
<td>240.00</td>
<td>B</td>
</tr>
<tr>
<td>3602</td>
<td>918-3602</td>
<td>Mono mix-down module for stereo (4100) units.</td>
<td>110.00</td>
<td>B</td>
</tr>
<tr>
<td>826-0200</td>
<td>Additional Cost for 230Vac Power Option (either model).</td>
<td>100.00</td>
<td>A R</td>
<td></td>
</tr>
<tr>
<td>980-4008</td>
<td>Module Filler Panel (for unused module space)</td>
<td>35.00</td>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>

Note: Mono mix-down module — When used, two modules required (one for MIX-1, one for MIX-2). Mix-down module is necessary to use feed function of remote modules in SL-4100 Stereo Console only.

**EXAMPLE (Mono)**

(1) ML-4000 Monaural Audio Console, Dual Channel with slide controls with 12 input modules, to include:

| (1) | 938-4000 Basic Console Chassis | $3000.00 | 3000.00 |
| (2) | 980-4025 Mono Remote Input Modules | $230.00 | 460.00 |
| (6) | 980-4021 Mono Input Mixing Modules with muting logic | $425.00 | 2550.00 |
| (4) | 980-4023 Mono Input Mixing Modules less muting logic | $400.00 | 1600.00 |

**EXAMPLE (Stereo)**

(1) SL-4100 938-4100 Stereo Dual Channel Console with slide controls and 12 input modules, to include:

| (1) | 938-4100 Basic Console Chassis, Stereo | $3500.00 | 3500.00 |
| (2) | 980-4026 Stereo Remote Input Modules | $240.00 | 480.00 |
| (6) | 980-4022 Stereo Input Mixing Modules w/muting | $530.00 | 3180.00 |
| (4) | 980-4024 Stereo Input Mixing Modules less muting | $500.00 | 2000.00 |

**Total** | **7610.00** | **9160.00** | **BR**
## SPARE P.C. BOARDS AND MODULES FOR AUDIO CONSOLES

### SERIES 50 CONSOLES

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Price</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>918-0001</td>
<td>VU Meter PC Board for Model 4M50</td>
<td>15.00</td>
<td>CR</td>
</tr>
<tr>
<td>918-0002</td>
<td>Input Preamplifier PC Bd. for Model 4M50</td>
<td>112.00</td>
<td>CR</td>
</tr>
<tr>
<td>918-0003</td>
<td>Power Supply PC Bd. for Model 4M50</td>
<td>105.00</td>
<td>CR</td>
</tr>
<tr>
<td>918-0050</td>
<td>Program Control PC Bd. for Model 4S50</td>
<td>180.00</td>
<td>CR</td>
</tr>
<tr>
<td>918-0051</td>
<td>Power Supply PC Bd. for Model 4S50</td>
<td>365.00</td>
<td>CR</td>
</tr>
<tr>
<td>918-0052</td>
<td>Power Amplifier PC Bd. for Model 4S50</td>
<td>160.00</td>
<td>CR</td>
</tr>
<tr>
<td>918-0053</td>
<td>Selector Switch PC Bd. for Model 4S50</td>
<td>45.00</td>
<td>CR</td>
</tr>
<tr>
<td>918-0054</td>
<td>Remote Switch PC Bd. for Model 4S50</td>
<td>35.00</td>
<td>CR</td>
</tr>
<tr>
<td>918-6005</td>
<td>Audio Amplifier PC Bd. for Model 4V50</td>
<td>397.00</td>
<td>CR</td>
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### SERIES 150/250 AND 350 CONSOLES

<table>
<thead>
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<th>Model</th>
<th>Description</th>
<th>Price</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>918-3600</td>
<td>Mono Preamplifier Module</td>
<td>90.00</td>
<td>C</td>
</tr>
<tr>
<td>918-3601</td>
<td>Stereo Preamplifier Module</td>
<td>110.00</td>
<td>C</td>
</tr>
<tr>
<td>918-3602</td>
<td>Mono Matrix Card for 5S100A and 8S100A</td>
<td>110.00</td>
<td>A</td>
</tr>
<tr>
<td>918-3603</td>
<td>Stereo Monitor Amplifier Module</td>
<td>95.00</td>
<td>C</td>
</tr>
<tr>
<td>918-3604</td>
<td>Line Driver Amplifier Module</td>
<td>120.00</td>
<td>C</td>
</tr>
<tr>
<td>918-3605</td>
<td>Mono Cue/Headphone Amplifier Module</td>
<td>95.00</td>
<td>C</td>
</tr>
<tr>
<td>918-3606</td>
<td>Stereo Cue/Headphone Amplifier Module</td>
<td>105.00</td>
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</tr>
<tr>
<td>918-3709</td>
<td>Mono Monitor Amplifier Module</td>
<td>100.00</td>
<td>CR</td>
</tr>
<tr>
<td>919-3000</td>
<td>PC Board Test Extender</td>
<td>40.00</td>
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<tr>
<td>918-3507</td>
<td>Power Supply Module, 150 Series</td>
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<tr>
<td>918-4001</td>
<td>Power Supply Module, 250 Series</td>
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<tr>
<td>918-4002</td>
<td>Power Supply Module, 350 Series</td>
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</tr>
<tr>
<td>918-7018</td>
<td>Cue-Intercom Module, 350 Series</td>
<td>110.00</td>
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### SERIES 4000 CONSOLES

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Price</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>918-3602</td>
<td>Mono Matrix Module</td>
<td>110.00</td>
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<tr>
<td>918-3604</td>
<td>Program Line Amplifier Module</td>
<td>120.00</td>
<td>C</td>
</tr>
<tr>
<td>918-3709</td>
<td>Mono Monitor Amplifier Module</td>
<td>100.00</td>
<td>C</td>
</tr>
<tr>
<td>918-7018</td>
<td>Cue-Intercom Amplifier Module</td>
<td>110.00</td>
<td>C</td>
</tr>
<tr>
<td>918-3510</td>
<td>Headphone Amplifier Module</td>
<td>95.00</td>
<td>C</td>
</tr>
<tr>
<td>918-4100</td>
<td>Power Supply Module</td>
<td>110.00</td>
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</tr>
<tr>
<td>918-4111</td>
<td>Mono Mixing w/Muting Module</td>
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<td>C</td>
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<tr>
<td>918-4131</td>
<td>Stereo Mixing w/Muting Module</td>
<td>450.00</td>
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<td>918-4101</td>
<td>Mono Mixing w/o Muting Module</td>
<td>275.00</td>
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<tr>
<td>918-4121</td>
<td>Stereo Mixing w/o Muting Module</td>
<td>395.00</td>
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<tr>
<td>918-4102</td>
<td>Mono Remote Input Module</td>
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<tr>
<td>918-4112</td>
<td>Stereo Remote Input Module</td>
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### SPARE PARTS KITS FOR CONSOLES

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Price</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>830-0080</td>
<td>Kit for Model 4S50 Stereo Audio Console</td>
<td>301.00</td>
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</tr>
<tr>
<td>830-0081</td>
<td>Kit for Model 4M50 Mono Audio Console</td>
<td>183.00</td>
<td>C</td>
</tr>
<tr>
<td>830-0082</td>
<td>Kit for Model 4V50 Mono Audio Console</td>
<td>193.00</td>
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<tr>
<td>830-0083</td>
<td>Kit for Model 5M150 Mono Audio Console</td>
<td>312.00</td>
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<tr>
<td>830-0084</td>
<td>Kit for Model 5S150 Stereo Audio Console</td>
<td>343.00</td>
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<tr>
<td>830-0085</td>
<td>Kit for Model 8M150 Mono Audio Console</td>
<td>330.00</td>
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<tr>
<td>830-0086</td>
<td>Kit for Model 8S150 Mono Audio Console</td>
<td>350.00</td>
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<tr>
<td>830-0087</td>
<td>Kit for Model 5M250 Mono Audio Console</td>
<td>458.00</td>
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<td>830-0088</td>
<td>Kit for Model 5S250 Stereo Audio Console</td>
<td>597.00</td>
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<tr>
<td>830-0089</td>
<td>Kit for Model 8M250 Mono Audio Console</td>
<td>466.00</td>
<td>C</td>
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<tr>
<td>830-0090</td>
<td>Kit for Model 8S250 Stereo Audio Console</td>
<td>629.00</td>
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</tr>
<tr>
<td>830-0091</td>
<td>Kit for Model 10M350 Mono Audio Console</td>
<td>412.00</td>
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<tr>
<td>830-0092</td>
<td>Kit for Model 10S350 Stereo Audio Console</td>
<td>531.00</td>
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<tr>
<td>830-0093</td>
<td>Kit for Model ML-4000 Mono Audio Console</td>
<td>249.00</td>
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<tr>
<td>830-0094</td>
<td>Kit for Model SL-4100 Stereo Audio Console</td>
<td>359.00</td>
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<tr>
<td>830-0095</td>
<td>Kit for Model 980-4021 Mono Input Mix Module</td>
<td>116.00</td>
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</tr>
<tr>
<td>830-0096</td>
<td>Kit for Model 930-4022 Stereo Input Mix Module</td>
<td>140.00</td>
<td>C</td>
</tr>
</tbody>
</table>

**Note:** Recommended Spare Parts Kits for audio consoles do not include plug-in PC Boards and modules. Please select these from elsewhere in this price list.
I = E

NOTE:

MATCH: 0 950-0067 MATCH - SAME as above, w/Shelfbase, Tone Arm, F-3 Cartridge

AD1B 903-0010 MATCH D A: 1 in, 5 out, rack mounting, Emitter Follower Output

AD1B/T 903-0011 MATCH D A: 1 in, 5 out, rack mounting, Transformer Outputs

AD1BX 903-0012 5-Channel Extender for AD1B, rack mount, Emitter Follower Output

AD1BX/T 903-0013 5-Channel Extender for AD1B, rack mount, Transformer Output

BEM-10 837-0100 Monitor Amplifier, 10 watt, in cabinet 115 V, 50/60 Hz, 30 watts, with Rack Adapter

830-0009 Recommended set spare parts for AD1B Distribution Amplifier

837-0101 Additional Cost for 230 VAC/50 Hz Power Source, AD-1B Series

STUDIO EQUIPMENT

TURNTABLES

12/C U 950-0050 12/C turntable 3 speed, AC Motor, 115V, 60 Hz.

12/C 320 950-0051 12/C Drilled for S-320 Tone Arm.

12/C O 950-0052 12/C Drilled for other brand Tone Arm. (Specify arm)

12/C S 950-0181 12/C System - 12/C Turntable, Shelfbase, S-320 Tone arm, F-3 Cartridge

Custom II 950-0156 Custom II Turntable, 2 speed, AC motor, 115V 60 Hz, undrilled

Custom II 950-0157 Same except drilled for S-320 Tone Arm.

Custom II 950-0158 Same except drilled for other type arm—Specify Arm

Galaxy/U 950-0053 Galaxy—Two Speed 33 1/3 & 45, LED speed readout, DC Motor, Variable speed 15 to 80 RPM, 115V, 50/60 Hz.

Galaxy/320 950-0054 Galaxy—Same as above, drilled for S-320 Tone Arm.

Galaxy/O 950-0055 Galaxy—Same as above, drilled for other Tone Arm.

Galaxy/G 950-0182 Galaxy System—Same as above, w/Shelfbase, Tone Arm, F-3 Cartridge

Medalist/U 950-0056 Medalist—Flat Platter, Variable speed 15 to 80 RPM, LED speed readout, DC Motor, undrilled, 115V 60Hz.

Medalist/320 950-0057 Medalist—Same except drilled for S-320 Tone Arm

Medalist/O 950-0058 Medalist—Same as above drilled for other Tone Arm. (Specify arm)

Medalist/S 950-0183 Medalist System—Same as above, w/Shelfbase, Tone Arm, F-3 Cartridge

16SA/320 950-0058 16SA—16” Turntable, 33 1/3, 45 RPM, drilled for S-260 or plain. For 115V, 60 Hz.

16SA/O 950-0059 16SA—16” Turntable, Variable speed 15 to 80 RPM, LED speed readout, DC Motor, plain or drilled for S-260 Tone Arm

16SD/320 950-0060 16SD—16” Turntable, Variable speed 15 to 80 RPM, LED speed readout, DC Motor, plain or drilled for S-260 Tone Arm

16SD/O 950-0064 16SD—Same as above, except drilled for other Tone Arm

Note: For 220V, 50 Hz add $30 to Galaxy, Medalist, 12C, 16S or Custom II price.

TONE ARMS

S-320 950-0061 S-320 Rek-O-Kut 12” Tone Arm.

S-260 950-0062 S-260 Rek-O-Kut 16” Tone Arm.

110.00 B

122.50 B
### PRE-AMPLIFIERS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFessional NET</th>
<th>CODE</th>
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<tbody>
<tr>
<td>Alpha I</td>
<td>933-0001</td>
<td>Alpha I Mono</td>
<td>105.00 A</td>
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<tr>
<td>Alpha II</td>
<td>933-0002</td>
<td>Alpha II Stereo</td>
<td>136.00 A</td>
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### CARTRIDGES

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<tr>
<td>F-3ES</td>
<td>806-0001</td>
<td>F-3ES Cartridge with .7 mil Spherical Stylus</td>
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<tr>
<td>F-3EE</td>
<td>806-0002</td>
<td>F-3EE Cartridge with .7 mil Elliptical Stylus</td>
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### STYLUS

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<tr>
<td>F-3ES-S</td>
<td>821-0005</td>
<td>F-3ES-S .7 mil Spherical Stylus</td>
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<tr>
<td>F-3EE-S</td>
<td>821-0006</td>
<td>F-3EE-S .7 mil Elliptical Stylus</td>
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### AUDIO CONSOLES

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<th>MODEL</th>
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<tbody>
<tr>
<td>Omega 10</td>
<td>938-0001</td>
<td>Omega 10 channel, digital switching, 40 inputs.</td>
<td>B</td>
</tr>
<tr>
<td>Omega 6</td>
<td>938-0002</td>
<td>Omega 6 channel, digital switching, 24 inputs.</td>
<td>B</td>
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<tr>
<td>Discon</td>
<td>938-0014</td>
<td>Discon Mixer, Stereo, 3 Phono Inputs, 2 Aux. Inputs, 2 Mic. Inputs,</td>
<td>B R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cross Fade, Talkover, Beat Match, Digital Meter, II Band Graphic Equalizer</td>
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### AUDIO SYSTEMS

<table>
<thead>
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<tbody>
<tr>
<td>Disco</td>
<td>938-0011</td>
<td>Disco System—Stereo—Alpha furniture, (2) 12/C turntables,</td>
<td>B R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2) S-320 tone arms, (2) F-3 cartridges, (1) goose neck,</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>(1) microphone, (1) Discon stereo mixer</td>
<td></td>
</tr>
<tr>
<td>Omega</td>
<td>960-1606</td>
<td>Omega 6 Stereo System—Portable furniture, (2) 12/C turntables,</td>
<td>B R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2) S-320 tone arms, (2) F-3 cartridges, (1) goose neck,</td>
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<tr>
<td></td>
<td></td>
<td>(2) Alpha II Pre-amps, Omega 6 console.</td>
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</table>

### FURNITURE

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>SB-1</td>
<td>821-0008</td>
<td>SB-1 Shelf base for 12/C turntable</td>
<td>B</td>
</tr>
<tr>
<td>SB-2</td>
<td>821-0009</td>
<td>SB-2 Shelf base for Galaxy turntable</td>
<td>B</td>
</tr>
<tr>
<td>FP-1</td>
<td>821-0019</td>
<td>FP-1 Single floor pedestal for 12/C turntable</td>
<td>B</td>
</tr>
<tr>
<td>FP-1D</td>
<td>821-0020</td>
<td>FP-1D Single floor pedestal for Galaxy turntable</td>
<td>B</td>
</tr>
<tr>
<td>FP-2</td>
<td>950-6510</td>
<td>FP-2-12C Double floor pedestal for 12/C</td>
<td>B R</td>
</tr>
<tr>
<td>FP-2D</td>
<td>821-0021</td>
<td>FP-2D Double floor pedestal for Galaxy turntable</td>
<td>B</td>
</tr>
<tr>
<td>FP-1-16</td>
<td>821-0022</td>
<td>FP-1-16 Single floor pedestal for 16'' turntable</td>
<td>B</td>
</tr>
<tr>
<td>FP-2-16</td>
<td>821-0023</td>
<td>FP-2-16 Dual floor pedestal for 16'' turntable</td>
<td>B</td>
</tr>
<tr>
<td>P-2</td>
<td>821-0024</td>
<td>P-2 Alpha furniture.</td>
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</tr>
<tr>
<td>P-1</td>
<td>821-0025</td>
<td>P-1 Portable furniture.</td>
<td>B</td>
</tr>
<tr>
<td>SP-1</td>
<td>821-0026</td>
<td>SP-1 Semi-portable console with plexi-glass protection around 3 sides of top.</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>821-0027</td>
<td>Desk for any 6 channel audio console, with or without turntable cutouts.</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>821-0028</td>
<td>Desk for any 10 channel audio console, with or without turntable cutouts.</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>821-0029</td>
<td>Desk, Standup for 36'' audio console with shelf above turntables for audio console.</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>821-0030</td>
<td>L Shape desk with turntables on same side, left or right. Manufactured in two pieces.</td>
<td>B</td>
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### REPEAT COIL AND TRANSFORMERS

<table>
<thead>
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<th>MODEL</th>
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<tr>
<td>378-1555</td>
<td></td>
<td>Transformer, Stepdown, 220-250 V to 110-125 V, 50/60 Hz, 250 W</td>
<td>C R</td>
</tr>
<tr>
<td>9K-600-6</td>
<td>825-0102</td>
<td>9K-600-6 Impedance 600 ohm x 6</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>376-0028</td>
<td>Transformer, Stepdown, 220 V to 110 V</td>
<td>C R</td>
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### TURNTABLE PRE-AMPLIFIERS

<table>
<thead>
<tr>
<th>MODEL</th>
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<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>BETMS-100</td>
<td>827-0100</td>
<td>SPOTMASTER Monaural/Stereo Equalized Pre-amplifier (less transformer output) phase reversal feature</td>
<td>A R</td>
</tr>
<tr>
<td>BETMS-200</td>
<td>827-0200</td>
<td>SPOTMASTER Monaural/Stereo Equalized Pre-amplifier w/transformer output, phase reversal feature</td>
<td>A R</td>
</tr>
<tr>
<td></td>
<td>827-0220</td>
<td>Additional cost for 220 VAC/50 Hz Power Conversion</td>
<td>A</td>
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<tr>
<td></td>
<td></td>
<td>Recommended set spare parts for BETMS 200 Preamp</td>
<td>C</td>
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<tr>
<td>MODEL</td>
<td>STOCK NO.</td>
<td>DESCRIPTION</td>
<td>PROFessional NET</td>
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<tr>
<td></td>
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<td><strong>PROFESSIONAL TURNTABLES</strong></td>
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</tr>
<tr>
<td>821-0001</td>
<td>821-0007</td>
<td>SPOTMASTER, Studio Pro-B, 12” direct-drive 2 speed turntable</td>
<td>399.00</td>
</tr>
<tr>
<td>SP 33B</td>
<td>821-0040</td>
<td>Additional cost for Power Conversion to 50 Hz</td>
<td>60.00</td>
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<tr>
<td></td>
<td>821-0010</td>
<td>Replacement Felt for Spotmaster Turntables (Red)</td>
<td>3.00</td>
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<tr>
<td>SP 5B</td>
<td>821-0045</td>
<td>Idler Wheel for Spotmaster Turntables</td>
<td>10.00</td>
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<tr>
<td>SP-24B</td>
<td>821-0060</td>
<td>Synchronous Motor, 60 Hz, with Capstan</td>
<td>110.00</td>
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<tr>
<td></td>
<td>821-0050</td>
<td>Synchronous Motor, 50 Hz, with Capstan</td>
<td>135.00</td>
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<td><strong>TECHNICS TURNTABLES</strong></td>
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<tr>
<td>SP10MKII</td>
<td>821-7000</td>
<td>Direct drive turntable without Tone Arm, 115 V, 50/60 Hz</td>
<td>900.00</td>
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<tr>
<td>SH-10B3</td>
<td>821-7001</td>
<td>Base for SP10MKII</td>
<td>350.00</td>
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<tr>
<td>SP-25</td>
<td>821-7005</td>
<td>Direct drive turntable w/o Tone Arm, Manual, 115 V, 50/60 Hz</td>
<td>350.00</td>
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<tr>
<td>SP-15</td>
<td>821-7006</td>
<td>Direct drive turntable w/o Tone Arm, 115 V, 50/60 Hz</td>
<td>600.00</td>
</tr>
<tr>
<td>SL-1200MKII</td>
<td>821-7007</td>
<td>Direct drive turntable with Tone Arm, Disco Type, 115 V, 50/60 Hz</td>
<td>350.00</td>
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<tr>
<td></td>
<td>303</td>
<td>12” Micro-Trak Arm</td>
<td>107.00</td>
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<td></td>
<td>306</td>
<td>16” Micro-Trak Arm</td>
<td>120.00</td>
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<td><strong>STANTON CARTRIDGES</strong></td>
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<td>500AA</td>
<td>821-5002</td>
<td>Stanton Cartridge, .5 mil stylus</td>
<td>19.00</td>
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<td>500AL</td>
<td>821-5000</td>
<td>Stanton Cartridge, .7 mil (extra heavy duty) stylus</td>
<td>16.00</td>
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<tr>
<td>681A</td>
<td>821-6810</td>
<td>Stanton Cartridge, calibration standard, .7 mil stylus</td>
<td>48.00</td>
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<tr>
<td>681EE</td>
<td>821-6812</td>
<td>Stanton Cartridge, .2 x .7 mil elliptical stylus</td>
<td>53.00</td>
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<tr>
<td>D5107A</td>
<td>821-5003</td>
<td>Stylus for 500A Cartridge</td>
<td>10.00</td>
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<tr>
<td>D5105AA</td>
<td>821-5004</td>
<td>Stylus for 500AA Cartridge</td>
<td>14.00</td>
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<td>D5107AL</td>
<td>821-5001</td>
<td>Stylus for 500AL Cartridge</td>
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<tr>
<td>D6807A</td>
<td>821-6811</td>
<td>Stylus for 681A Cartridge</td>
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<tr>
<td>D6800EE</td>
<td>821-6813</td>
<td>Stylus for 681EE Cartridge</td>
<td>28.00</td>
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<tr>
<td>D5127</td>
<td>821-6815</td>
<td>78 RPM Stylus for 500 Series Cartridge</td>
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<tr>
<td>D6827</td>
<td>821-6817</td>
<td>78 RPM Stylus for 600 Series Cartridge</td>
<td>22.00</td>
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<td><strong>SHURE TONE ARMS AND CARTRIDGES</strong></td>
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<tr>
<td>3009-III</td>
<td>821-4200</td>
<td>SHURE SME Tone Arm, 3009 Series III</td>
<td>294.00</td>
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<tr>
<td>V15-IV</td>
<td>821-4201</td>
<td>SHURE CARTRIDGE for SME Tone Arm</td>
<td>182.00</td>
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<td>VN45HE</td>
<td>821-4202</td>
<td>SHURE Replacement Styli for V15-IV Cartridge</td>
<td>63.00</td>
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<tr>
<td>M232</td>
<td>821-4232</td>
<td>SHURE MODEL M232, 12” tone arm</td>
<td>57.00</td>
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<tr>
<td>SC35C</td>
<td>821-4350</td>
<td>SHURE SC35C, Professional Broadcast Cartridge</td>
<td>34.00</td>
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<tr>
<td>SS35C</td>
<td>821-4352</td>
<td>SHURE SS35C, Spherical Stylus for SC35C</td>
<td>10.00</td>
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<tr>
<td>M44C</td>
<td>821-0031</td>
<td>SHURE M44C, .5 Mil Stylus Cartridge</td>
<td>33.00</td>
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<tr>
<td>M44-7</td>
<td>821-4470</td>
<td>SHURE M44-7, Stereo Broadcast Cartridge with N44-7 Spherical, .7 mil stylus</td>
<td>39.00</td>
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<tr>
<td>SS78E</td>
<td>821-0032</td>
<td>SHURE SS78E Stylus, Elliptical for 78 RPM</td>
<td>15.00</td>
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<td>N44-7</td>
<td>821-4471</td>
<td>SHURE N44-7, Replacement Stylus for M44-7</td>
<td>12.00</td>
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<tr>
<td>N44-C</td>
<td>821-0033</td>
<td>SHURE N44-C Stylus, 7 Mil Heavy Duty—3-5 Gram</td>
<td>12.00</td>
</tr>
<tr>
<td>N44-3</td>
<td>821-4472</td>
<td>SHURE N44-3, Replacement 78 RPM Stylus for M44 Cartridge</td>
<td>12.00</td>
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<td><strong>STUDIO EQUIPMENT CONTROL ROOM FURNITURE</strong></td>
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<tr>
<td>CONSOLE FURNITURE, FRENCH BLUE TOP WITH PECAN CABINETS (FORMICA NO. 422 CORTENA) SERIES “L”</td>
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</tr>
<tr>
<td>833-0001</td>
<td>833-0002</td>
<td>SPOTMASTER Single Turntable Floor Cabinet (22” x 22” x 29”)</td>
<td>225.00</td>
</tr>
<tr>
<td>833-0002</td>
<td>833-0003</td>
<td>SPOTMASTER Single Turntable Floor Cabinet (22” x 22” x 29”)</td>
<td>325.00</td>
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<tr>
<td>833-0003</td>
<td></td>
<td>SPOTMASTER Console Desk Top (80” x 24” x 1½”)</td>
<td>140.00</td>
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<tr>
<td>MODEL</td>
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<td>DESCRIPTION</td>
<td>PROFessional NET</td>
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<tr>
<td>833-0350</td>
<td>833-0378</td>
<td>Corner Console Table LCBC</td>
<td>175.00</td>
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<tr>
<td>833-0301</td>
<td>833-0331</td>
<td>Hy-Style Console Table 24x80</td>
<td>200.00</td>
</tr>
<tr>
<td>833-0101</td>
<td>833-0103</td>
<td>SPOTMASTER Leg, chrome, tapered (4 req'd. for free-standing</td>
<td>23.00/pr.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>console section)</td>
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Note: Add $15.00 for turntable cut-out. Specify exact location of cut-out and type of turntable to be mounted.

**MICRO-TRAK STUDIO FURNITURE, SERIES “S”**

<table>
<thead>
<tr>
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<th>DESCRIPTION</th>
<th>PROFessional NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>833-0300</td>
<td>833-0301</td>
<td>Cabinet TT, Single Bay</td>
<td>240.00</td>
<td>C</td>
</tr>
<tr>
<td>833-0331</td>
<td>833-0368</td>
<td>Desk with pedestal, 30x80</td>
<td>569.00</td>
<td>C</td>
</tr>
<tr>
<td>833-0101</td>
<td>833-0103</td>
<td>Desk with legs, 30x80</td>
<td>325.00</td>
<td>C</td>
</tr>
</tbody>
</table>

**MICRO-TRAK FURNITURE ACCESSORIES**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFessional NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>833-0313</td>
<td>833-0314</td>
<td>Bright Metal Leg-Pair</td>
<td>23.00/pr.</td>
<td>C</td>
</tr>
<tr>
<td>833-0328</td>
<td>833-0345</td>
<td>Hardware Kit Panel Mfg</td>
<td>5.00</td>
<td>C</td>
</tr>
</tbody>
</table>

**MICRO-TRAK FURNITURE ACCESSORIES (Continued)**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFessional NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>833-0351</td>
<td>833-0352</td>
<td>Roll Around Base For Single</td>
<td>43.00</td>
<td>C</td>
</tr>
<tr>
<td>833-0781</td>
<td>833-0791</td>
<td>Turntable Cut Out</td>
<td>15.00</td>
<td>C</td>
</tr>
</tbody>
</table>

(Additional MICRO-TRAK Models Available)

**ON-AIR STUDIO LIGHTS**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFessional NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>835-0001</td>
<td>835-0002</td>
<td>ON-AIR Light, Vertical format</td>
<td>48.00</td>
<td>B</td>
</tr>
<tr>
<td>835-0003</td>
<td>835-0004</td>
<td>ON-AIR Light, Horizontal format</td>
<td>48.00</td>
<td>B</td>
</tr>
<tr>
<td>835-0006</td>
<td>835-0009</td>
<td>En Aire Light, Vertical format</td>
<td>48.00</td>
<td>B</td>
</tr>
<tr>
<td>835-0007</td>
<td>835-0008</td>
<td>En Aire Light, Horizontal format</td>
<td>48.00</td>
<td>B</td>
</tr>
<tr>
<td>835-0005</td>
<td>835-0010</td>
<td>Rehearsal Light, Vertical format</td>
<td>48.00</td>
<td>B</td>
</tr>
<tr>
<td>835-0013</td>
<td>835-0014</td>
<td>Rehearsal Light, Horizontal format</td>
<td>48.00</td>
<td>B</td>
</tr>
<tr>
<td>835-0008</td>
<td>835-0009</td>
<td>Record Light, Vertical format</td>
<td>48.00</td>
<td>B</td>
</tr>
<tr>
<td>835-0009</td>
<td>835-0010</td>
<td>Record Light, Horizontal format</td>
<td>48.00</td>
<td>B</td>
</tr>
<tr>
<td>835-0101</td>
<td>835-0102</td>
<td>On Air Light, Edge Illuminated</td>
<td>35.00</td>
<td>C, R</td>
</tr>
<tr>
<td>835-0103</td>
<td>835-0104</td>
<td>Rectangle Flush Mounting Box</td>
<td>35.00</td>
<td>C, R</td>
</tr>
</tbody>
</table>

**POWER AMPLIFIERS**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFessional NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-75</td>
<td>827-0075</td>
<td>Stereo Power Amplifier, 35 watts, 8 ohm, per ch.</td>
<td>449.00</td>
<td>C, R</td>
</tr>
<tr>
<td>D-150A</td>
<td>827-0150</td>
<td>Stereo Power Amplifier, 75 watts, 8 ohm, per ch.</td>
<td>669.00</td>
<td>C, R</td>
</tr>
<tr>
<td>DC-300A</td>
<td>827-0310</td>
<td>Stereo Power Amplifier 155 Watts, 8 ohms, per ch.</td>
<td>1049.00</td>
<td>C, R</td>
</tr>
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</table>

**PROOF OF PERFORMANCE EQUIPMENT**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFessional NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT-51</td>
<td>829-0051</td>
<td>Audio test system, consists of AG-51 Audio Generator and AA51 Audio</td>
<td>2790.00</td>
<td>C, R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Analyzer, 115 V, 60 Hz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>210</td>
<td>829-0210</td>
<td>Audio Oscillator, 115 V, 60 Hz</td>
<td>410.00</td>
<td>C, R</td>
</tr>
<tr>
<td>410</td>
<td>829-0410</td>
<td>Audio Distortion Meter, 115 V, 60 Hz</td>
<td>495.00</td>
<td>C, R</td>
</tr>
<tr>
<td>410X</td>
<td>829-0411</td>
<td>Audio Distortion Meter, 220 V, 50 Hz</td>
<td>525.00</td>
<td>C, R</td>
</tr>
<tr>
<td>1760FM/AM</td>
<td>829-1761</td>
<td>Audio Step Generator, FM, AM</td>
<td>1395.00</td>
<td>C</td>
</tr>
<tr>
<td>781F</td>
<td>829-0052</td>
<td>Decibel Meter with Frequency Readout</td>
<td>1395.00</td>
<td>C, R</td>
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</tbody>
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<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
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<tbody>
<tr>
<td>575A</td>
<td>829-0575</td>
<td>Two-tone EBS Encoder Generator</td>
<td>425.00</td>
<td>C</td>
</tr>
<tr>
<td>575B</td>
<td>829-0576</td>
<td>Decoder for 575A EBS Encoder</td>
<td>285.00</td>
<td>C</td>
</tr>
<tr>
<td>575C</td>
<td>829-0577</td>
<td>575A Encoder and 575B Decoder in Single 1 1/4&quot; Rack Unit</td>
<td>645.00</td>
<td>C</td>
</tr>
<tr>
<td>65-390</td>
<td>829-0390</td>
<td>Fideliflip Wow and Flutter Meter</td>
<td>425.00</td>
<td>C</td>
</tr>
<tr>
<td>635A</td>
<td>825-0635</td>
<td>Electro-voice Microphone, omnidirectional dynamic</td>
<td>79.00</td>
<td>C</td>
</tr>
<tr>
<td>6054</td>
<td>825-0054</td>
<td>Electro-voice Microphone, omnidirectional slim-trim</td>
<td>126.00</td>
<td>C</td>
</tr>
<tr>
<td>6056</td>
<td>825-0016</td>
<td>Electro-voice Microphone, Shock mounted, dynamic omnidirectional</td>
<td>110.00</td>
<td>C</td>
</tr>
<tr>
<td>649B</td>
<td>825-0649</td>
<td>Electro-voice Microphone, Lavaliar</td>
<td>110.00</td>
<td>C</td>
</tr>
<tr>
<td>RE10</td>
<td>825-0010</td>
<td>Electro-voice Super Cardioid (90 Hz to 13 kHz)</td>
<td>141.00</td>
<td>C</td>
</tr>
<tr>
<td>RE15</td>
<td>825-0015</td>
<td>Electro-voice Super Cardioid, highest quality (80 Hz to 15 kHz)</td>
<td>222.00</td>
<td>C</td>
</tr>
<tr>
<td>RE18</td>
<td>825-00170</td>
<td>Electro-voice Shock mounted Variable-D, Dynamic Cardioid</td>
<td>248.00</td>
<td>C</td>
</tr>
<tr>
<td>RE65</td>
<td>825-0085</td>
<td>Electro-voice Shock Mounted Lavaliar</td>
<td>118.00</td>
<td>C</td>
</tr>
<tr>
<td>SM7</td>
<td>825-0007</td>
<td>Shure Microphone, boom, selectable response</td>
<td>407.00</td>
<td>C</td>
</tr>
<tr>
<td>SM61</td>
<td>825-0061</td>
<td>Shure Microphone, hand-held</td>
<td>118.00</td>
<td>C</td>
</tr>
<tr>
<td>SM81</td>
<td>825-0018</td>
<td>Shure Microphone, Cardioid Condense (20 Hz-20 kHz)</td>
<td>275.00</td>
<td>C</td>
</tr>
<tr>
<td>EM-500</td>
<td>825-0097</td>
<td>ORK-EM500 Dynamic Microphone</td>
<td>56.00</td>
<td>C</td>
</tr>
<tr>
<td>D421</td>
<td>825-0105</td>
<td>Sennheiser D421 Microphone</td>
<td>399.00</td>
<td>C</td>
</tr>
</tbody>
</table>

**BROADCAST AND RECORDING MICROPHONES**

- **SPARKS AND HEADPHONES**
  - SC-4 829-0154  SC-4 Sound Column—4 speaker, 65 w, 8 ohms 265.00 C R
  - SB-6060 829-2019  Loudspeaker, 150 watt, with cabinet 350.00 C
  - SC-8 829-0155  SC-8 Sound Column—8 Speaker, 110 w, 8 ohms 535.00 C R
  - SB-7070 829-2020  Loudspeaker, 180 watt, with cabinet 450.00 C
  - Sentry V 829-2004  Loudspeaker, 30 watts, 4-6 ohms 360.00 C
  - Sentry 10C 829-2025  Loudspeaker, Compact, 300 watt, 6 ohm 200.00 C R
  - EVS-13B 829-2005  Loudspeaker, 70 watts, 8 ohms, 8" 90.00 C
  - EV-MI 829-0151  Monitor 1, 3 way, 30 watt 120.00 C R
  - EV-MC8A 829-2006  Speaker, 8", 24 watts, 8 ohm 40.00 C
  - EV-0152  Box speaker, portable, 100 w 485.00 C R
  - EV-MC12A 829-2007  Speaker, 12", 40 watts, 8 ohm 62.00 C
  - Announcer, Speaker, 20 watt, 8 ohm 55.00 C R
<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFessional NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>HD-430</td>
<td>829-2021</td>
<td>Headset, Highest Quality, 600 ohm</td>
<td>126.00</td>
<td>C</td>
</tr>
<tr>
<td>HD-420</td>
<td>829-2023</td>
<td>Headset, 600 ohm</td>
<td>89.00</td>
<td>C</td>
</tr>
<tr>
<td>HD-424</td>
<td>829-2015</td>
<td>Headset, Deluxe, 2000 ohm</td>
<td>115.00</td>
<td>C</td>
</tr>
<tr>
<td>HD-414</td>
<td>829-2016</td>
<td>Headset, 2000 ohm</td>
<td>79.00</td>
<td>C</td>
</tr>
<tr>
<td>HD-400</td>
<td>829-2022</td>
<td>Headset, 600 ohm</td>
<td>46.00</td>
<td>C</td>
</tr>
</tbody>
</table>

### PATCH PANELS, TERMINAL BLOCKS, WIRE AND CABLE

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFessional NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PJ-343</td>
<td>829-4000</td>
<td>Single row jack strip, 24 jacks or 12 pairs (no jack mat required)</td>
<td>89.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-341</td>
<td>829-4001</td>
<td>Double row jack strip only, 48 jacks or 24 pairs, less mat</td>
<td>136.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-391</td>
<td>829-4207</td>
<td>Double row of 48 jacks (3 Conductor PJ-339 jacks w/ normalising contacts</td>
<td>176.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-393</td>
<td>829-4208</td>
<td>Single row of 24 jacks (3 conductor PJ-339 Jacks w/ normalising contacts</td>
<td>132.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-71</td>
<td>829-4222</td>
<td>1 foot, 3 conductor shielded patch cord with single PJ-2 plug on each end</td>
<td>22.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-72</td>
<td>829-4209</td>
<td>2 foot, 3 conductor shielded patch cord with single PJ-2 plug on each end</td>
<td>23.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-73</td>
<td>829-4220</td>
<td>3 foot, 3 conductor shielded patch cord with single PJ-2 plug on each end</td>
<td>24.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-74</td>
<td>829-4221</td>
<td>4 foot, 3 conductor shielded plug with single PJ-2 plug on each end</td>
<td>25.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-76</td>
<td>829-4210</td>
<td>6 foot, 3 conductor shielded patch cord with single PJ-2 plug on each end</td>
<td>28.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-11</td>
<td>829-4005</td>
<td>Double patch cord, 1 foot</td>
<td>35.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-12</td>
<td>829-4006</td>
<td>Double patch cord, 2 feet</td>
<td>38.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-13</td>
<td>829-4007</td>
<td>Double patch cord, 3 feet</td>
<td>39.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-14</td>
<td>829-4008</td>
<td>Double patch cord, 4 feet</td>
<td>40.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-16</td>
<td>829-4010</td>
<td>Double patch cord, 6 feet</td>
<td>41.00</td>
<td>C</td>
</tr>
<tr>
<td>CH-1050</td>
<td>829-4211</td>
<td>Patch cord holder</td>
<td>57.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-1</td>
<td>829-4100</td>
<td>Double plug, black</td>
<td>13.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-2</td>
<td>829-4205</td>
<td>Plug, 3 conductor</td>
<td>6.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-318</td>
<td>829-4101</td>
<td>Jack, 2 conductor</td>
<td>3.30</td>
<td>C</td>
</tr>
<tr>
<td>PJ-339</td>
<td>829-4206</td>
<td>Jack, 3 conductor</td>
<td>3.30</td>
<td>C</td>
</tr>
<tr>
<td>PJ-103</td>
<td>829-4110</td>
<td>Terminal block, 3 rows, 60 terminals</td>
<td>21.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-104</td>
<td>829-4103</td>
<td>Terminal block, 4 rows, 80 terminals</td>
<td>24.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-106</td>
<td>829-4104</td>
<td>Terminal block, 6 rows, 120 terminals</td>
<td>30.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-108</td>
<td>829-4105</td>
<td>Terminal block, 8 rows, 160 terminals</td>
<td>35.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-608</td>
<td>829-4106</td>
<td>Terminal block, solderless, wrapped, 80 terminals</td>
<td>13.00</td>
<td>C</td>
</tr>
<tr>
<td>PJ-612</td>
<td>829-4107</td>
<td>Terminal block, solderless, wrapped, 120 terminals</td>
<td>16.00</td>
<td>C</td>
</tr>
<tr>
<td>4036</td>
<td>829-4108</td>
<td>Terminal Block mounting bar holds up to five blocks, for 19&quot; rack.</td>
<td>22.00</td>
<td>C</td>
</tr>
<tr>
<td>8412</td>
<td>829-4200</td>
<td>Microphone cable, 2 conductor, stranded, 20 AWG braided shield, cotton wrap, heavy rubber jacket, 500 ft. roll</td>
<td>200.00</td>
<td>C R</td>
</tr>
<tr>
<td>8428</td>
<td>829-4201</td>
<td>Microphone cable, 2 conductor, stranded, 18 AWG braided shield, heavy duty neoprene jacketed, 500 ft. roll</td>
<td>275.00</td>
<td>C R</td>
</tr>
<tr>
<td>8437</td>
<td>829-4202</td>
<td>Audio wire, 2 conductor, solid, 22 AWG w/drain wire and braided shield, black vinyl jacket, 500 ft. roll</td>
<td>100.00</td>
<td>C R</td>
</tr>
<tr>
<td>8450</td>
<td>829-4203</td>
<td>Audio wire, 2 conductor, solid, 22 AWG w/drain wire, foil shield, vinyl jacket, 500 ft. roll</td>
<td>50.00</td>
<td>C R</td>
</tr>
<tr>
<td>8451</td>
<td>622-8451</td>
<td>Audio wire, 2 conductor, miniature, 22 AWG, stranded, w/drain wire, foil shield, vinyl jacket, 500 ft. roll</td>
<td>50.00</td>
<td>C</td>
</tr>
<tr>
<td>CM3</td>
<td>829-4212</td>
<td>Male Receptacle Assembly, Circular Housing (type XLR-3-14)</td>
<td>2.50</td>
<td>C</td>
</tr>
<tr>
<td>RM3</td>
<td>829-4213</td>
<td>Male Receptacle Assembly, Square Housing (type XLR-3-32)</td>
<td>3.00</td>
<td>C</td>
</tr>
<tr>
<td>RF3</td>
<td>829-4214</td>
<td>Female Receptacle Assembly, Square Housing (type XLR-3-31)</td>
<td>5.00</td>
<td>C</td>
</tr>
<tr>
<td>CF3</td>
<td>829-4215</td>
<td>Female Receptacle Assembly, Circular Housing (type XLR-3-13)</td>
<td>6.00</td>
<td>C R</td>
</tr>
<tr>
<td>PF3</td>
<td>829-4216</td>
<td>Female Plug Assembly, Standard Grommet (XLR-3-11c)</td>
<td>3.75</td>
<td>C</td>
</tr>
<tr>
<td>PM3</td>
<td>829-4217</td>
<td>Male Plug Assembly, Standard Grommet (XLR-3-12c)</td>
<td>3.20</td>
<td>C</td>
</tr>
<tr>
<td>PF3S</td>
<td>829-4218</td>
<td>Female Plug Assembly, Small Cable Grommet</td>
<td>3.90</td>
<td>C</td>
</tr>
<tr>
<td>PM3S</td>
<td>829-4219</td>
<td>Male Plug Assembly, Small Cable Grommet</td>
<td>3.30</td>
<td>C</td>
</tr>
</tbody>
</table>
### CLOCKS AND TIMERS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PRICE</th>
<th>CODE</th>
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</thead>
<tbody>
<tr>
<td>BECL-100</td>
<td>835-0100</td>
<td>SPOTMASTER Quartzmatic, white face</td>
<td>45.00</td>
<td>B</td>
</tr>
<tr>
<td>BECL-200</td>
<td>835-0100A</td>
<td>SPOTMASTER Quartzmatic, tan face</td>
<td>45.00</td>
<td>B</td>
</tr>
<tr>
<td>ES751</td>
<td>829-0104</td>
<td>Cue Clock, thumbwheel programmer, single event</td>
<td>390.00</td>
<td>C</td>
</tr>
<tr>
<td>ES754</td>
<td>829-0103</td>
<td>Cue Clock, thumbwheel programmer, two event</td>
<td>425.00</td>
<td>C</td>
</tr>
</tbody>
</table>

### DIGITAL TIMERS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PRICE</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES142</td>
<td>829-0142</td>
<td>Digital Clock/Thermometer, Fahrenheit, 115 V., 60 Hz, 12 Hour</td>
<td>262.00</td>
<td>C</td>
</tr>
<tr>
<td>ES142/WJ</td>
<td>829-0143</td>
<td>Digital Clock/Thermometer with Centigrade Temperature, 220 V., 50 Hz, 12 Hour</td>
<td>310.00</td>
<td>C</td>
</tr>
<tr>
<td>ES144</td>
<td>829-0144</td>
<td>Digital Clock/Thermometer, FH, 115V, 60Hz, 24 Hour</td>
<td>262.00</td>
<td>C</td>
</tr>
<tr>
<td>ES144/WJ</td>
<td>829-0145</td>
<td>Digital Clock/Thermometer, CT, 220V, 50Hz, 24 Hour</td>
<td>310.00</td>
<td>C</td>
</tr>
<tr>
<td>ES302</td>
<td>829-0302</td>
<td>Timer, Elapsed Time Indicator</td>
<td>277.00</td>
<td>C</td>
</tr>
<tr>
<td>ES510</td>
<td>829-0510</td>
<td>Timer, Sixty Minute, Four Digit</td>
<td>146.00</td>
<td>C</td>
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</table>

### CUE CLOCKS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PRICE</th>
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</thead>
<tbody>
<tr>
<td>STUDIO CLOCKS (Battery Powered—C Cell)</td>
<td></td>
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</tr>
<tr>
<td>BECL-100</td>
<td>835-0100</td>
<td>SPOTMASTER Quartzmatic, white face</td>
<td>45.00</td>
<td>B</td>
</tr>
<tr>
<td>BECL-200</td>
<td>835-0100A</td>
<td>SPOTMASTER Quartzmatic, tan face</td>
<td>45.00</td>
<td>B</td>
</tr>
</tbody>
</table>

### AMCO RACK CABINETS

(Heavy Duty Type, Black Front and attractive BE blue side panels and door)

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PRICE</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>840-4001</td>
<td></td>
<td>ONE RACK BAY with louvered back door, top plate, side panels and cowlings. Dimensions 69-3/4&quot; high 23-1/4&quot; wide and 25&quot; deep. 35 rack units per rack. (Unwired rack)</td>
<td>490.00</td>
<td>C</td>
</tr>
<tr>
<td>840-4000</td>
<td></td>
<td>ONE RACK BAY same as above except less side panels.</td>
<td>450.00</td>
<td>C</td>
</tr>
<tr>
<td>840-4002</td>
<td></td>
<td>TWO RACK BAY same as above except dimensions are 69-3/4&quot; high, 45-1/4&quot; wide and 25&quot; deep</td>
<td>800.00</td>
<td>C</td>
</tr>
<tr>
<td>840-4003</td>
<td></td>
<td>THREE RACK BAY same as above except dimensions are 69-3/4&quot; high, 67-3/4&quot; wide and 25&quot; deep</td>
<td>1115.00</td>
<td>C</td>
</tr>
<tr>
<td>840-4004</td>
<td></td>
<td>FOUR RACK BAY same as above except dimensions are 69-3/4&quot; high, 89-3/4&quot; wide and 25&quot; deep</td>
<td>1425.00</td>
<td>C</td>
</tr>
<tr>
<td>840-4005</td>
<td></td>
<td>Optional LOCKING flush handle for the above racks. (H365L-L1-V for left hinged door), one per rack</td>
<td>15.00</td>
<td>C</td>
</tr>
<tr>
<td>840-4006</td>
<td></td>
<td>Pair of &quot;L&quot; type rear mounting channels, (One pair required per rack). MXL-61</td>
<td>40.00</td>
<td>C</td>
</tr>
<tr>
<td>840-4007</td>
<td></td>
<td>3' Plug mold with 6 AC outlets. PM-36-6</td>
<td>40.00</td>
<td>C</td>
</tr>
<tr>
<td>840-4008</td>
<td></td>
<td>5' Plug mold with 10 AC outlets. PM-60-10</td>
<td>60.00</td>
<td>C</td>
</tr>
<tr>
<td>506-0175</td>
<td></td>
<td>1¼&quot; Blank Panel - Black (1RU)</td>
<td>8.00</td>
<td>C</td>
</tr>
<tr>
<td>506-0350</td>
<td></td>
<td>3¼&quot; Blank Panel - Black (2RU)</td>
<td>9.00</td>
<td>C</td>
</tr>
<tr>
<td>506-0525</td>
<td></td>
<td>5¼&quot; Blank Panel - Black (3RU)</td>
<td>11.00</td>
<td>C</td>
</tr>
<tr>
<td>506-0700</td>
<td></td>
<td>7&quot; Blank Panel - Black (4RU)</td>
<td>15.00</td>
<td>C</td>
</tr>
<tr>
<td>506-0875</td>
<td></td>
<td>8½&quot; Blank Panel - Black (5RU)</td>
<td>18.00</td>
<td>C</td>
</tr>
<tr>
<td>420-0003</td>
<td></td>
<td>Screws for Rack Mounting equipment</td>
<td>5.00/25</td>
<td>C</td>
</tr>
<tr>
<td>421-0002</td>
<td></td>
<td>Nuts for 420-0003 screw</td>
<td>10.00/25</td>
<td>C</td>
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</tbody>
</table>

### REEL-TO-REEL TAPE RECORDERS—STUDER/REVOX Model B-77

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PRICE</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>14102</td>
<td>822-4102</td>
<td>Revox 10½&quot; Recorder/Playback, 3.75-7.5 ips, mounted in walnut plastic case, Stereo half track</td>
<td>1499.00</td>
<td>C</td>
</tr>
<tr>
<td>14302</td>
<td>822-4302</td>
<td>Same as Model 14102, except in metal cage for rack mount</td>
<td>1499.00</td>
<td>C</td>
</tr>
<tr>
<td>14106</td>
<td>822-4106</td>
<td>Revox 10½&quot; recorder/playback, 7½ - 15 IPS, mounted in walnut plastic case, Stereo half track</td>
<td>1499.00</td>
<td>C</td>
</tr>
<tr>
<td>14306</td>
<td>822-4306</td>
<td>Same as Model 14106, except in metal cage for rack mount</td>
<td>1499.00</td>
<td>C</td>
</tr>
<tr>
<td>14142</td>
<td>822-4143</td>
<td>Revox 10½&quot; recorder/playback, 7½ - 15 IPS, with self sync</td>
<td>1599.00</td>
<td>C</td>
</tr>
<tr>
<td>14342</td>
<td>822-4342</td>
<td>Same as Model 14143 except in metal cage for rack mount</td>
<td>1599.00</td>
<td>C</td>
</tr>
<tr>
<td>14112</td>
<td>822-4112</td>
<td>Revox 10½&quot; recorder/playback, 3.75 - 7.5 IPS, mounted in walnut case, Stereo half track, with self sync</td>
<td>1599.00</td>
<td>C</td>
</tr>
<tr>
<td>14312</td>
<td>822-4312</td>
<td>Same as Model 14112 except in metal cage for rack mount</td>
<td>1599.00</td>
<td>C</td>
</tr>
<tr>
<td>MODEL</td>
<td>STOCK NO.</td>
<td>DESCRIPTION</td>
<td>PROFESSIONAL NET</td>
<td>CODE</td>
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<tr>
<td>OPTIONS FOR REVOX B-77 SERIES</td>
<td></td>
<td>REEL TO REEL TAPE RECORDERS (Cont.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34237</td>
<td>822-4237</td>
<td>Vari Speed Control for B-77</td>
<td>125.00</td>
<td>C</td>
</tr>
<tr>
<td>34227</td>
<td>822-4227</td>
<td>Remote Control for B-77 with 30-foot cable</td>
<td>145.00</td>
<td>C</td>
</tr>
<tr>
<td>61021</td>
<td>822-1021</td>
<td>Rack mount adapter for B-77 (includes metal cage)</td>
<td>125.00</td>
<td>C</td>
</tr>
<tr>
<td>ACCESSORIES FOR REVOX B-77 SERIES</td>
<td></td>
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<tr>
<td>45240</td>
<td>822-5240</td>
<td>Revox Editing Kit/Splicing Kit</td>
<td>23.95</td>
<td>C</td>
</tr>
<tr>
<td>39000</td>
<td>822-9000</td>
<td>Revox Cleaning Kit</td>
<td>4.50</td>
<td>C</td>
</tr>
<tr>
<td>9860</td>
<td>822-9865</td>
<td>Operating Manual for B-77</td>
<td>5.00</td>
<td>C</td>
</tr>
<tr>
<td>9860</td>
<td>822-9860</td>
<td>Service Manual for B-77</td>
<td>25.00</td>
<td>C</td>
</tr>
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<td></td>
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</tr>
<tr>
<td>REEL-TO-REEL TAPE RECORDERS—L.J. SCULLY</td>
<td></td>
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</tr>
<tr>
<td>LJ-10-1</td>
<td>822-2503</td>
<td>Monaural, half-track, bi-directional, .250'' tape, 14'' reels, 3% - 7½ IPS, 117 VAC, 60 Hz</td>
<td>4250.00</td>
<td>C</td>
</tr>
<tr>
<td>LJ-10-2</td>
<td>822-2504</td>
<td>Stereo, two track, .250'' tape, 14'' reels, 3% - 7½ IPS, 117 VAC, 60 Hz</td>
<td>4250.00</td>
<td>C</td>
</tr>
<tr>
<td>LJ-10-4</td>
<td>822-2505</td>
<td>Stereo, quarter-track, bi-directional, .250'' tape, 14'' reels, 3% - 7½ IPS, 117 VAC, 60 Hz</td>
<td>4380.00</td>
<td>C</td>
</tr>
<tr>
<td>Note: 50 Hz operation add $45.00 to list price. Other speeds available upon request.</td>
<td></td>
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</tr>
<tr>
<td>REEL-TO-REEL TAPE RECORDERS OTARI SERIES</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>MX-5050-BF</td>
<td>822-5050</td>
<td>Mono one-channel full-track recorder/reproducer with two-channel half-track reproduce capability. Dc capstan servo. Three speeds in speed pairs of 15/7½ or 7½/3½ ips, field selectable, 600 ohm balanced output. Vinyl covered wood cabinet.</td>
<td>2195.00</td>
<td>C R</td>
</tr>
<tr>
<td>MX-5050 Mp</td>
<td>822-5056</td>
<td>Stereo two-channel half-track recorder/reproducer with quarter-track reproduce capability. Dc capstan servo. Three speeds in speed pairs of 15/7½ or 7½/3½ ips, field selectable. 600 ohm balanced output. Vinyl covered wood cabinet.</td>
<td>2150.00</td>
<td>C R</td>
</tr>
<tr>
<td>MX-5050B1/4</td>
<td>822-5082</td>
<td>Stereo two-channel quarter track recorder/reproducer with half track reproduce capability. Dc capstan servo. Three speeds in speed pairs of 15/7½ or 7½/3½ ips, field selectable. 600 ohm balanced output. Vinyl covered wood cabinet.</td>
<td>2150.00</td>
<td>C R</td>
</tr>
<tr>
<td>MX-5050-QXD</td>
<td>822-5051</td>
<td>Four-channel, quarter-track, quarter-inch tape recorder/reproducer. 15/7½ ips. Dc capstan-servo system. 600 ohm unbalanced output. Two black vinyl-covered wood cabinets</td>
<td>2995.00</td>
<td>C R</td>
</tr>
<tr>
<td>MX-5050-8D</td>
<td>822-5053</td>
<td>Eight-channel, half-inch tape recorder/reproducer. 15/7½ ips. 600 ohm unbalanced output. Two vinyl-covered wood cabinets.</td>
<td>4995.00</td>
<td>C R</td>
</tr>
<tr>
<td>Mark II-2</td>
<td>822-5055</td>
<td>Two-channel, quarter-inch tape recorder/reproducer. 15/7½ ips. Dc capstan-servo system. 600 ohm balanced output. Table top console.</td>
<td>2695.00</td>
<td>C R</td>
</tr>
<tr>
<td>Mark II-4</td>
<td>822-5057</td>
<td>Four-channel, half-inch tape recorder/reproducer. 15/7½ ips. Dc capstan-servo system. 600 ohm balanced output. Two vinyl-covered wood cabinets.</td>
<td>3895.00</td>
<td>C R</td>
</tr>
<tr>
<td>ARS-1000-DC</td>
<td>822-5058</td>
<td>Two speed (7½/3½ ips), two-channel reproducer. 25 Hz sensor. Variable time delay. 19-inch rack mounting. For automation systems and other reproduce-only applications.</td>
<td>1465.00</td>
<td>C R</td>
</tr>
<tr>
<td>ARS-1000-DS</td>
<td>822-5081</td>
<td>Same as above but without 25 Hz sensor and variable time delay.</td>
<td>1375.00</td>
<td>C R</td>
</tr>
<tr>
<td>DP-4050-OCF</td>
<td>822-5059</td>
<td>8:1 in-cassette duplicator. Open reel master (for 7½ or 3½ ips originals) with six cassette slaves.</td>
<td>7350.00</td>
<td>C R</td>
</tr>
<tr>
<td>DP-4050-C2</td>
<td>822-5060</td>
<td>8:1 in-cassette duplicator with cassette master and two slaves.</td>
<td>2950.00</td>
<td>C R</td>
</tr>
<tr>
<td>OPTIONAL ACCESSORIES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FC-2B</td>
<td>822-5061</td>
<td>Rugged portable vinyl covered black case for MX-5050 Series with reinforced corners and snap-on front and rear covers.</td>
<td>220.00</td>
<td>C R</td>
</tr>
<tr>
<td>TZ-307</td>
<td>822-5062</td>
<td>Front and back covers (four total) for QXHD.</td>
<td>80.00</td>
<td>C R</td>
</tr>
<tr>
<td>TZ-306</td>
<td>822-5063</td>
<td>Covers as above for 8D model.</td>
<td>95.00</td>
<td>C R</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>MODEL</td>
<td>STOCK NO.</td>
<td>DESCRIPTION</td>
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<td>CODE</td>
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</tr>
<tr>
<td>RD-2B</td>
<td>822-5064</td>
<td>Rack mounting adapter for MX-5050-B</td>
<td>38.00</td>
<td>C R</td>
</tr>
<tr>
<td>RK-2M</td>
<td>822-5065</td>
<td>Rack mounting adapter for Mark II-2</td>
<td>38.00</td>
<td>C R</td>
</tr>
<tr>
<td>RK-4</td>
<td>822-5066</td>
<td>Rack mounting adapter for Mark II-4 and QX</td>
<td>54.00</td>
<td>C R</td>
</tr>
<tr>
<td>RK-8</td>
<td>822-5067</td>
<td>Rack mounting adapter for 8D</td>
<td>64.00</td>
<td>C R</td>
</tr>
<tr>
<td>CSL-B</td>
<td>822-5068</td>
<td>Wood floor console for B and BF with casters for convenient horizontal operation.</td>
<td>350.00</td>
<td>C R</td>
</tr>
<tr>
<td>CSL-48</td>
<td>822-5069</td>
<td>Wood floor console with casters for MX-5050-QXD and 8D. Slanted-top tape deck mounting with electronic controls below plus 7-inch blank space for noise reduction (includes rack mounting kit). Specify 4- or 8-channel.</td>
<td>375.00</td>
<td>C R</td>
</tr>
<tr>
<td>CR-705A</td>
<td>822-5070</td>
<td>Remote Control (as above) for MX-5050-B, QXHD, 8D and Mark II.</td>
<td>120.00</td>
<td>C R</td>
</tr>
<tr>
<td>IPT-B</td>
<td>822-5072</td>
<td>Input transformer, balanced 600 ohm, for MX-5050-B. Internal mounting, hard-wired type.</td>
<td>14.00</td>
<td>C R</td>
</tr>
<tr>
<td>IPT-HW</td>
<td>822-5073</td>
<td>Input transformer, balanced 600 ohm, for MX-5050-QXD, 8D, and Mark II. Internal mounting, hard-wired type.</td>
<td>43.00</td>
<td>C R</td>
</tr>
<tr>
<td>OPT</td>
<td>822-5074</td>
<td>Balanced 600 ohm output transformer for QXD and 8D. (Balanced 600 ohm output is standard on other models.)</td>
<td>35.00</td>
<td>C R</td>
</tr>
<tr>
<td>ADP-CBL</td>
<td>822-5075</td>
<td>Set of 10-foot input/output cables for two-channels: two input XLR male to RCA phono, and two output XLR female to RCA phono.</td>
<td>22.00</td>
<td>C R</td>
</tr>
<tr>
<td>TW-670</td>
<td>822-5076</td>
<td>Reel hold down knobs, ¼ inch, each.</td>
<td>12.00</td>
<td>C R</td>
</tr>
<tr>
<td>TW-671</td>
<td>822-5077</td>
<td>Reel hold down knobs, ½ inch, each.</td>
<td>16.00</td>
<td>C R</td>
</tr>
<tr>
<td>Manual-O</td>
<td>822-5078</td>
<td>Extra operators manual (one supplied with recorder). Please specify model.</td>
<td>25.00</td>
<td>C R</td>
</tr>
<tr>
<td>Manual-S</td>
<td>822-5083</td>
<td>Extra service manual (one supplied with recorder) please specify manual.</td>
<td>25.00</td>
<td>C R</td>
</tr>
</tbody>
</table>

### UHER REEL-TO-REEL MACHINES

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>4000 AV</td>
<td>822-5084</td>
<td>Uher 4000 recorder monitor AV, 3 head, half track mono</td>
<td>1200.00</td>
<td>C R</td>
</tr>
<tr>
<td>4200 IC</td>
<td>822-5080</td>
<td>Uher Report 4200 IC, half-track stereo</td>
<td>1300.00</td>
<td>C R</td>
</tr>
<tr>
<td>4400 IC</td>
<td>822-5085</td>
<td>Uher Report 4400 IC, ¾ track stereo</td>
<td>1300.00</td>
<td>C R</td>
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</tbody>
</table>

### MARTI STL AND REMOTE PICKUP EQUIPMENT

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>STL-8</td>
<td>829-0001</td>
<td>STL-8 System, Stereo, complete with two (2) STL-8 Transmitters, two (2) R-200/950F Receivers, HRC-8 Transmitter Combiner and MT-81 Receiver Combiner. Furnished complete with crystals and tested on final frequency.</td>
<td>4765.00</td>
<td>E R</td>
</tr>
<tr>
<td>STL-8F/H</td>
<td>829-0002</td>
<td>STL-8F/H Transmitter, 8 watt, complete with crystal and tuned to frequency. 120/240 VAC. 8-3/8&quot;x19&quot; Horizontal Rack construction. For AM &amp; FM Broadcast application.</td>
<td>1585.00</td>
<td>E R</td>
</tr>
<tr>
<td>ASO-8A</td>
<td>829-0003</td>
<td>ASO-8A Automatic Switchover Unit for &quot;hot standby&quot; switching between two STL-8 Series transmitters. 120/240 VAC. Rack mount. 3½&quot;x19&quot;.</td>
<td>415.00</td>
<td>E R</td>
</tr>
<tr>
<td>HRC-8</td>
<td>829-0004</td>
<td>HRC-8 Transmitter Combiner. For combining the outputs of two STL-8 Series transmitters into common antenna system. Furnished complete with interconnect cables to transmitters.</td>
<td>195.00</td>
<td>E R</td>
</tr>
<tr>
<td>R-200/950/H</td>
<td>829-0005</td>
<td>R-200/950/H Receiver, complete with crystal and tuned to frequency. 120/240 VAC. 8-3/8&quot;x19&quot; Horizontal Rack construction. For AM &amp; FM Broadcast application. Includes Down Converter.</td>
<td>995.00</td>
<td>E R</td>
</tr>
<tr>
<td>ASO-200A</td>
<td>829-0006</td>
<td>ASO-200A Automatic Switchover Unit for &quot;hot standby&quot; switching between two R-200/950 Series receivers. 120/240 VAC. Rack mount. 3½&quot;x19&quot;.</td>
<td>375.00</td>
<td>E R</td>
</tr>
<tr>
<td>MTS-1</td>
<td>829-0007</td>
<td>MTS-1 Matching &quot;T&quot; Section. For combining the inputs of two R-200/950 Series receivers from a common antenna system.</td>
<td>28.00</td>
<td>E R</td>
</tr>
<tr>
<td>MRA-950RF</td>
<td>829-0008</td>
<td>MRA-950 RF Preamplifier. 120 VAC.</td>
<td>220.00</td>
<td>E R</td>
</tr>
<tr>
<td>RPT-40</td>
<td>829-0009</td>
<td>Remote Pickup Transmitter, 40 watt, solid-state, complete with crystal &amp; tuned to 150 MHz.</td>
<td>1250.00</td>
<td>E R</td>
</tr>
<tr>
<td>RPT-25</td>
<td>829-0011</td>
<td>Remote Pickup Transmitter, 25 watt, solid-state, complete with crystal &amp; tuned to 450 MHz.</td>
<td>1405.00</td>
<td>E R</td>
</tr>
<tr>
<td>TPS-TC-1</td>
<td>829-0012</td>
<td>Mobile Control Assembly, required for 12 VDC operation for RPT-40 and RPT-25 transmitters.</td>
<td>75.00</td>
<td>E R</td>
</tr>
<tr>
<td>MCD-70</td>
<td>829-0013</td>
<td>Cardioid dynamic microphone with push-to-talk switch.</td>
<td>75.00</td>
<td>E R</td>
</tr>
<tr>
<td>R-30/150</td>
<td>829-0014</td>
<td>Remote Pickup Receiver, Solid-state, complete with crystal &amp; tuned to 150 MHz., for use with RPT-40 and RPT-1/150 Series transmitters.</td>
<td>735.00</td>
<td>E R</td>
</tr>
</tbody>
</table>
### MRTI STL AND REMOTE PICKUP EQUIPMENT (Continued)

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>NET</th>
<th>CODE</th>
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<tbody>
<tr>
<td>R-50/450</td>
<td>829-0015</td>
<td>Remote Pickup Receiver, Solid-state, complete with crystal &amp; tuned to 450 MHz, for use with RPT-25 and RPT-11450 Series transmitters.</td>
<td>925.00</td>
<td>ER</td>
</tr>
<tr>
<td>MRA-150</td>
<td>829-0016</td>
<td>RF Preamplifier, solid-state, 10 db gain, 150-170 MHz, complete with 120 VAC Power Supply.</td>
<td>160.00</td>
<td>ER</td>
</tr>
<tr>
<td>MRA-450</td>
<td>829-0017</td>
<td>RF Preamplifier, solid-state, 10 db gain, 450-460 MHz, complete with 120 VAC Power Supply.</td>
<td>160.00</td>
<td>ER</td>
</tr>
</tbody>
</table>

### MOSELEY STL AND REMOTE PICKUP EQUIPMENT

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>NET</th>
<th>CODE</th>
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</thead>
<tbody>
<tr>
<td>PCL-505</td>
<td>829-0018</td>
<td>STL - ALL SOLID-STATE Transmitter and Receiver with self-contained power supplies, crystals, and tested on operating frequency. Versions available for all commonly used bands from 148 MHz to 960 MHz. Specify operating frequency when ordering.</td>
<td>4695.00</td>
<td>ER</td>
</tr>
<tr>
<td>PCL-505/C</td>
<td>829-0019</td>
<td>COMPOSITE STL - ALL SOLID-STATE Transmitter and Receiver with self-contained power supplies, crystals, and tested on operating frequency. Transmits composite stereo waveform over single STL. Versions available for all commonly used bands from 148 MHz to 960 MHz. Specify frequency.</td>
<td>4950.00</td>
<td>ER</td>
</tr>
<tr>
<td>PCL-101</td>
<td>829-0020</td>
<td>STL (148-174 MHz, 215-240 MHz, 300-330 MHz, 450-470 MHz, 890-960 MHz; other frequencies on special order) - ALL SOLID STATE Transmitter and Receiver with self-contained power supplies, crystals, and tested on operating frequency. Specify frequency.</td>
<td>3750.00</td>
<td>ER</td>
</tr>
<tr>
<td></td>
<td>829-0021</td>
<td>CRYSTAL SET for Moseley Associates STL's, consists of frequency-determining crystals, includes one transmitter crystal and one receiver crystal. Specify frequency.</td>
<td>75.00</td>
<td>ER</td>
</tr>
<tr>
<td>RPL-3A</td>
<td>829-0022</td>
<td>REMOTE PICKUP LINK, ALL SOLID-STATE Transmitter with internal AC and DC power supplies and ALL SOLID-STATE Receiver with internal AC power supply, for operation in the 148-174 MHz band. Tuned and tested on operating frequency. Includes crystals for one frequency. Specify frequency. For 25F3 and 30F3 channels; FCC Groups K1, K2, L and M.</td>
<td>3950.00</td>
<td>ER</td>
</tr>
<tr>
<td>RPL-4A</td>
<td>829-0023</td>
<td>REMOTE PICKUP LINK, ALL SOLID-STATE Transmitter with internal AC and DC power supplies and ALL SOLID-STATE Receiver with internal AC power supply, for operation in the 450-470 MHz band. Tuned and tested on operating frequency. Includes crystals for one frequency. Specify frequency. For 25F3 channels, FCC Group N2.</td>
<td>4150.00</td>
<td>ER</td>
</tr>
<tr>
<td>RPL-4B</td>
<td>829-0024</td>
<td>REMOTE PICKUP LINK, ALL SOLID-STATE Transmitter with internal AC and DC power supplies and ALL SOLID-STATE Receiver with internal AC power supply, for operation in the 450-470 MHz band. Custom modification for RPL-4B allowing 15 kHz audio response, add $150.00 Tuned and tested on operating frequency. Includes crystals for one frequency. Specify frequency. For 50F3 and 100F3 channels; FCC Groups N1, R and S.</td>
<td>4150.00</td>
<td>ER</td>
</tr>
<tr>
<td></td>
<td>829-0025</td>
<td>OPTIONAL CARRIER-OPERATED SQUELCH RELAY, For RPL-3A, RPL-4A or RPL-4B Receiver. This option to be specified at time of order.</td>
<td>50.00</td>
<td>ER</td>
</tr>
<tr>
<td></td>
<td>829-0026</td>
<td>CRYSTAL SET for RPL-3A, RPL-4A and RPL-4B Remote Pickup Links. Second frequency or spare; consists of frequency-determining crystals including one transmitter crystal and one receiver crystal. Specify exact operating frequency when ordering.</td>
<td>75.00</td>
<td>ER</td>
</tr>
<tr>
<td>AMP-3A</td>
<td>829-0027</td>
<td>RF POWER AMPLIFIER, for use with Remote Pickup Link Transmitter. FCC type accepted with above Moseley transmitters. For 150-170 MHz, 13.5 VDC operation.</td>
<td>395.00</td>
<td>ER</td>
</tr>
<tr>
<td>AMP-3A/AC</td>
<td>829-0028</td>
<td>Same as above except rack mount version with AC power supply.</td>
<td>1035.00</td>
<td>ER</td>
</tr>
<tr>
<td>AMP-4A</td>
<td>829-0029</td>
<td>RF POWER AMPLIFIER, for use with Remote Pickup Link Transmitter, FCC type accepted with above Moseley transmitters. For 450-470 MHz, 13.5 VDC operation.</td>
<td>475.00</td>
<td>ER</td>
</tr>
<tr>
<td>AMP-4A/AC</td>
<td>829-0030</td>
<td>Same as above except rack mount version with AC power supply.</td>
<td>1115.00</td>
<td>ER</td>
</tr>
<tr>
<td>MODEL</td>
<td>STOCK NO.</td>
<td>DESCRIPTION</td>
<td>PROFESSIONAL NET</td>
<td>CODE</td>
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</tr>
<tr>
<td>TPT-2</td>
<td>829-0057</td>
<td>TRANSFER PANEL TRANSMITTER, provides automatic changeover to standby STL transmitter, carrier operated. For use with PCL-101, PCL-505, or PCL-505/C. Specify model of Mosley STL.</td>
<td>625.00</td>
<td>E R</td>
</tr>
<tr>
<td>TPR-2</td>
<td>829-0058</td>
<td>TRANSFER PANEL RECEIVER, provides automatic changeover to standby STL receiver, carrier operated. Use with PD-1000 Power Divider. For use with PCL-101, PCL-505 and PCL-505/C. Specify Model of Mosley STL</td>
<td>475.00</td>
<td>E R</td>
</tr>
<tr>
<td>ECP-5</td>
<td>829-0059</td>
<td>STL Extension Control Panel, provides carrier control and metering of relative RF power output and AFC for PCL-505 and PCL-505/C. Relative RF power out only for PCL-101.</td>
<td>265.00</td>
<td>E R</td>
</tr>
<tr>
<td>PR-450U</td>
<td>829-0060</td>
<td>ANTENNA, Scala Paraflector (19.64 db gain at 950 MHz), for 300 MHz for 960 MHz, with Type N female termination, universal mounting for horizontal or vertical polarization, fully anodized, for STL. Specify operating frequency.</td>
<td>435.00</td>
<td>E R</td>
</tr>
<tr>
<td>MF-960</td>
<td>829-0061</td>
<td>ANTENNA, Scale Miniflector (16.14 db gain at 950 MHz), for 940-960 MHz, with Type N female termination, universal mounting for horizontal or vertical polarization, fully anodized, for STL. Not recommended for congested areas. Specify operating frequency.</td>
<td>250.00</td>
<td>E R</td>
</tr>
<tr>
<td>CA5-150</td>
<td>829-0062</td>
<td>ANTENNA, Scala five-element Yagi, horizontally polarized. 9 dbd gain, 140-230 MHz. Specify operating frequency.</td>
<td>145.00</td>
<td>E R</td>
</tr>
<tr>
<td>OG-4</td>
<td>829-0063</td>
<td>ANTENNA, Scala omni-directional collinear array, 4 dbd gain, 150-170 MHz. Specify operating frequency.</td>
<td>225.00</td>
<td>E R</td>
</tr>
<tr>
<td>CA5-450</td>
<td>829-0064</td>
<td>ANTENNA, SCALA five-element Yagi, H or V polarization. 10 dbd gain, 230-500 MHz. Specify operating frequency.</td>
<td>145.00</td>
<td>E R</td>
</tr>
<tr>
<td>OG-6</td>
<td>829-0065</td>
<td>ANTENNA, Scala omni-directional collinear array, 6 dbd gain, 450-470 MHz. Specify operating frequency.</td>
<td>225.00</td>
<td>E R</td>
</tr>
<tr>
<td>PR-450U</td>
<td>829-0066</td>
<td>ANTENNA, Scala Paraflector, H or V polarization, 15 db gain, 450-470 MHz. Specify operating frequency.</td>
<td>435.00</td>
<td>E R</td>
</tr>
<tr>
<td>LDF4-50</td>
<td>829-0067</td>
<td>HELIAX Low-loss Coaxial Transmission Line, ½&quot;, foam dielectric, 50 ohm, jacketed. (2.4 dB/100 ft. at 950 MHz, 1.5 dB at 450 MHz) Per Ft.</td>
<td>1.36</td>
<td>E R</td>
</tr>
<tr>
<td>KTL-6</td>
<td>829-0068</td>
<td>CONNECTOR KIT, for LDF4-50, includes type N connectors (female connectors normally supplied) and two 3' RG-8/U pigtail assemblies. ONE KIT REQUIRED FOR EACH ANTENNA.</td>
<td>84.00</td>
<td>E R</td>
</tr>
<tr>
<td>LDF5-50</td>
<td>829-0069</td>
<td>HELIAX Low-loss Coaxial Transmission Line, ⅜&quot; foam dielectric, 50 ohm, jacketed. (1.4 dB/100ft. at 950 MHz, 0.85 dB at 450 MHz) Per Ft.</td>
<td>3.54</td>
<td>E R</td>
</tr>
<tr>
<td>KTL-7</td>
<td>829-0070</td>
<td>CONNECTOR KIT, for LDF5-50, includes two Type N connectors (female connectors normally supplied) and two 3' RG-8/U pigtail assemblies. ONE KIT REQUIRED FOR EACH ANTENNA.</td>
<td>130.00</td>
<td>E R</td>
</tr>
<tr>
<td>RG-8/U</td>
<td>829-0071</td>
<td>3' Pigtail Assembly, Type N male connector on each end.</td>
<td>25.00</td>
<td>E R</td>
</tr>
<tr>
<td>SCG-9A</td>
<td>829-0072</td>
<td>FM STEREO GENERATOR, includes power supply and peak-reading deviation meter.</td>
<td>1,595.00</td>
<td>E R</td>
</tr>
<tr>
<td>SCG-8</td>
<td>829-0073</td>
<td>SUBCARRIER GENERATOR, with automatic muting and front-panel peak-deviation meter, including self-contained power supply. Available for operation in the 26 kHz to 185 kHz Spectrum. Specify operating frequency when ordering.</td>
<td>875.00</td>
<td>E R</td>
</tr>
<tr>
<td>SCD-8</td>
<td>829-0074</td>
<td>SUBCARRIER DEMODULATOR, with automatic muting and front-panel peak-deviation meter, including self-contained power supply. Available for operation in the 26 kHz to 185 kHz spectrum. Specify operating frequency when ordering.</td>
<td>895.00</td>
<td>E R</td>
</tr>
<tr>
<td>SCM-1</td>
<td>829-0075</td>
<td>SUBCARRIER MAIN FRAME. Accommodates two subcarrier modulator/modemulator modules. Specify subcarrier frequency and STL model when ordering. For utility/control/telemetry service.</td>
<td>675.00</td>
<td>E R</td>
</tr>
<tr>
<td>TFL-280B</td>
<td>829-0076</td>
<td>AUDIO LIMITER, includes switchable 75usecond pre-emphasis and de-emphasis, plug-in 15 kHz audio low-pass filter, power supply and front-panel calibrated meter. Other time-constants and audio low-pass filters available on special order. For FM, FM SCA and TV aural service.</td>
<td>1,135.00</td>
<td>E R</td>
</tr>
<tr>
<td>TFL-280B</td>
<td>829-0077</td>
<td>STEREO PAIR, consisting of two Model TFL-280B Audio Limiters. Matched in performance characteristics for FM stereo service.</td>
<td>2,195.00</td>
<td>E R</td>
</tr>
<tr>
<td>TGR-340</td>
<td>829-0078</td>
<td>AUDIO GAIN RIDER, includes compressor, adjustable recovery-enable, adjustable recovery delay, clipper control, switchable low-distortion treble AGC, power supply and front-panel calibrated meter. An all purpose automatic level controller for AM-FM-TV-STL-Satellite feed and production service.</td>
<td>1,295.00</td>
<td>E R</td>
</tr>
<tr>
<td>MODEL</td>
<td>STOCK NO.</td>
<td>DESCRIPTION</td>
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</tr>
<tr>
<td>TRC-15AW</td>
<td>829-0080</td>
<td>WIRE REMOTE CONTROL SYSTEM, SOLID-STATE, 15-channel, 1 meter, for use on single AC pair.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRC-15AR</td>
<td>829-0081</td>
<td>RADIO (STL) REMOTE CONTROL SYSTEM, SOLID-STATE, 15 channel, 1 meter, with control subcarrier generator and detector, for use with Moseley STL. Advise STL model and subcarrier frequency when ordering. Subaudible (20-30 Hz) telemetry standard.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>829-0082</td>
<td></td>
<td>TELEMETRY SCA GENERATOR MODULE, for use with TRC-15A Remote Control System for telemetry return only, frequency 67 kHz. Other frequencies 26 kHz to 185 kHz on special order.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1077-1</td>
<td>829-0083</td>
<td>REMOTE METER PANEL, for use with Moseley analog remote control systems. Available in one, two or three-meter configurations.</td>
<td></td>
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</tr>
<tr>
<td>1077-1</td>
<td>829-0083-1</td>
<td>One-Meter Panel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1077-2</td>
<td>829-0083-2</td>
<td>Two-Meter Panel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1077-3</td>
<td>829-0083-3</td>
<td>Three-Meter Panel</td>
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</tbody>
</table>

**BELAR ELECTRONICS MONITORING EQUIPMENT**

<table>
<thead>
<tr>
<th>MODEL</th>
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<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>FMM-1</td>
<td>829-0031</td>
<td>FMM-1 FM Frequency &amp; Modulation Monitor (FCC Type Approval No. 3-129)</td>
</tr>
<tr>
<td>FMS-1</td>
<td>829-0032</td>
<td>FMS-1 Stereo Frequency &amp; Modulation Monitor (FCC Type Approval No. 3-146)</td>
</tr>
<tr>
<td>FMM-2</td>
<td>829-0050</td>
<td>FMM-2 FM Modulation Monitor</td>
</tr>
<tr>
<td>FMS-2</td>
<td>829-0049</td>
<td>FMS-2 Stereo Modulation Monitor</td>
</tr>
<tr>
<td>SCM-1</td>
<td>829-0033</td>
<td>SCM-1 SCA Frequency &amp; Modulation Monitor (FCC Type Approval No. 3-162)</td>
</tr>
<tr>
<td>RFA-1</td>
<td>829-0034</td>
<td>RFA-1 FM RF Amplifier</td>
</tr>
<tr>
<td>MP-1</td>
<td>829-0035</td>
<td>MP-1 Remote Meter Panel for FMM-1</td>
</tr>
<tr>
<td>MP-2</td>
<td>829-0036</td>
<td>MP-2 Remote Meter Panel for FMS-1</td>
</tr>
<tr>
<td>MP-3</td>
<td>829-0037</td>
<td>MP-3 Remote Meter Panel for SCM-1</td>
</tr>
<tr>
<td>MJ-10</td>
<td>829-0038</td>
<td>MJ-10 Yagi Antenna, 10 Element, used with RFA-1</td>
</tr>
</tbody>
</table>

**AM EQUIPMENT**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>AMM-2A</td>
<td>829-0039</td>
<td>AMM-2A AM Modulation Monitor (FCC Type Approval No. 3-240)</td>
</tr>
<tr>
<td>AMM-3</td>
<td>829-0040</td>
<td>AMM-3 AM Modulation Monitor (FCC Type Approval No. 3-231)</td>
</tr>
<tr>
<td>AMM-4</td>
<td>829-0041</td>
<td>AMM-4 AM Frequency Monitor</td>
</tr>
<tr>
<td>829-0042</td>
<td>OPTIONS 01 Relay Card</td>
<td></td>
</tr>
<tr>
<td>RFA-2</td>
<td>829-0044</td>
<td>RFA-2 AM RF Amplifier</td>
</tr>
<tr>
<td>MP-6A</td>
<td>829-0045</td>
<td>MP-6A Remote Meter Panel for AMM-2A</td>
</tr>
<tr>
<td>MP-7</td>
<td>829-0046</td>
<td>MP-7 Remote Meter Panel for AMM-3</td>
</tr>
<tr>
<td>829-0047</td>
<td>Shielded Loop Antenna, with built in pre-amplifier for RFA-2</td>
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</tr>
<tr>
<td>829-0048</td>
<td>OPTION 01 Power Supply for Loop Antenna</td>
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**TFT MONITORING EQUIPMENT**

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<tbody>
<tr>
<td>763</td>
<td>829-0053</td>
<td>TFT Model 763, FM Modulation Monitor</td>
</tr>
<tr>
<td>724-A</td>
<td>829-0054</td>
<td>TFT Model 724A, Stereo Modulation Monitor</td>
</tr>
<tr>
<td>730-A</td>
<td>829-0055</td>
<td>TFT Model 730A—SCA Monitor</td>
</tr>
</tbody>
</table>

**OPTIMOD EQUIPMENT**

<table>
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<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
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</tr>
</thead>
<tbody>
<tr>
<td>8100</td>
<td>829-0056</td>
<td>Optimod Model 8100 Stereo Generator and Processor</td>
</tr>
</tbody>
</table>

**Phelps Dodge FM Antennas**

Phelps Dodge Circular FM antennas are available for high or low power. Horizontal only antennas are also available.
PROGRAM AUTOMATION EQUIPMENT

MODEL | STOCK NO. | DESCRIPTION | PROFESSIONAL NET | CODE
---|---|---|---|---
Control 16 | 960-1600 | Control 16 Dual Microprocessor Automatic Program Controller with full stereo capability. A complete operating control package (excludes source equipment) for 115 V, 60 Hz consisting of: One keyboard, one master video display, audio control, customer panel and heavy duty power supply with battery back-up. Check out and training (not to exceed 5 days) by factory service representative after installation by customer, within contiguous 48 states. Source Kit including Universal Source Card and source cable. One Source Kit required for each reel to reel, multi-deck or single cartridge machine, random access cartridge machine or studio/network source. | $15,500.00 | S R

Note: Control 16 Program Controller includes one balanced 600 ohm dedicated input for network without need for extra source card. Additional networks or studio input will require a source kit for each.

TYPICAL PROGRAM AUTOMATION SYSTEMS

Three Rack Reel-to-Reel/Carousel Type System
- Control 16 Stereo Program Automation System for 115 V, 60 Hz, factory wired in three matching rack cabinets including Microprocessor Program Controller with keyboard and master video display and including 3—Otari ARS-1000-DC Reel to Reel, 2—Random Access 42 Shelf Stereo Carousel, 2—Model 3300P Cart Machine for time announce, 1 Model 5304A stereo Three Deck, Source Card for studio input and relay panel.

Same as above except for Monaural

Three Rack Go Cart System
- Control 16 Stereo Program Automation System for 115 V, 60 Hz factory wired in three matching rack cabinets including microprocessor program controller with keyboard and master video monitor and including 3—Otari ARS-1000-DC Reel to Reel, 2—Random Access 42 Shelf Stereo Go Cart, 2—Model 3300 P Cart Machines for time announce and source card for studio input and relay panel.

Same as above except for Monaural

Four Rack Reel-to-Reel/Go Cart System
- Control 16 Stereo Program Automation System for 115 V, 60 Hz, factory wired in four matching rack cabinets including microprocessor program controller with keyboard and master video monitor and including 4—Otari ARS-1000-DC Reel to Reel, 2—Random Access 42 Shelf Stereo Go Cart, 2—Model 3300P Cart Machines for time announce, Model 5304A stereo three deck, source card for studio input and relay panel.

Same as above except for Monaural

Logging Package
- Logging Package for Log Printing, Tape Encoding (less cartridge record/play unit) and memory print only. Includes: One TI-743 RO Printer for Log Printing One TI-743 KSR with Keyboard for tape encoding and Memory Print only One BE Encoding Electronics Panel Ten Rolls Printing Paper

Note: Several different logging packages are available depending on customer requirements.

Rack Cabinets (See page 21 for empty rack cabinets)
- Factory Wired Rack cabinet for Automation System with cables, AC connectors, blank panels

Note: Program Automation Systems are custom engineered to stations requirements and system prices vary according to type and number of source equipment and logging options. Systems priced above are representative of three basic systems. Broadcast Electronics would be pleased to quote on a system tailored to your stations business and program needs.
ECONO CONTROL 16

Econo-Control 16 Microprocessor Program Controller
with full stereo capability. A complete operating control package
(excludes source equipment) for 115 V, 60 Hz consisting of:
One keyboard, audio control, customer panel and heavy duty
power supply with battery back-up.

Typical Two Rack Reel to Reel/Carousel Stereo System
Econo Control 16 Program Automation System for 115V, 60 Hz
factory wired in two matching rack cabinets; including BE No.
960-1605 2000 event, 10 repetitive compare time Microprocessor
program controller with keyboard and including 2 Otari ARS-1000-DC Reel
to Reel, 1-Random access 24 shelf stereo Carousel, 1-Model 5304A
Stereo Three Deck, High Speed English Logging with Ti 743 RO Printer,
Ti 743 KSR for preparing encoding, BE electronics encoder and 10 rolls
of printing paper.

AUTOMATION ACCESSORIES

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFESSIONAL NET</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TG-2</td>
<td>908-6850</td>
<td>Dual Tone Generator</td>
<td>$ 850.00</td>
<td>B R</td>
</tr>
<tr>
<td></td>
<td>908-6855</td>
<td>Auto Rewind</td>
<td>$ 225.00</td>
<td>B R</td>
</tr>
</tbody>
</table>

FM TRANSMITTERS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>STOCK NO.</th>
<th>DESCRIPTION</th>
<th>PROFESSIONAL NET</th>
</tr>
</thead>
<tbody>
<tr>
<td>6909-0001</td>
<td>280,000A/8990</td>
<td>30,000 watt FM transmitter complete with final tube, solid state exciter, on MHz, 50 Ohm output, TPO KW, 208/240 VAC, 60Hz. (Power supply cabinet in line).</td>
<td>46,500.00</td>
</tr>
<tr>
<td>909-0001-1</td>
<td>280,000A/8990</td>
<td>30,000 watt FM transmitter complete with final tube, solid state exciter, on MHz, 50 Ohm output, TPO KW, 208/240 VAC, 60Hz. (Power Supply separate from transmitter)</td>
<td>46,500.00</td>
</tr>
<tr>
<td>243-0001</td>
<td>280,000A/8990</td>
<td>Spare tube 4CX-20,000A/8990</td>
<td>1,268.00</td>
</tr>
<tr>
<td>909-0018</td>
<td>280,000A/8990</td>
<td>3.5, 3500 watt FM transmitter complete with final tube, solid state exciter, on MHz, 50 Ohm output, TPO KW, single phase 208/240VAC, 50/60Hz.</td>
<td>17,500.00</td>
</tr>
<tr>
<td>243-2002</td>
<td>280,000A/8990</td>
<td>Spare tube 4CX3000A/8169</td>
<td>755.00</td>
</tr>
<tr>
<td>909-0032</td>
<td>280,000A/8990</td>
<td>1.5, 1500 watt FM transmitter complete with final tube, solid state exciter, on MHz, 50 Ohm output, TPO KW, single phase, 208/240VAC, 50/60Hz.</td>
<td>On Request</td>
</tr>
<tr>
<td>243-2003</td>
<td>280,000A/8990</td>
<td>Spare tube 4CX1500B</td>
<td>On Request</td>
</tr>
<tr>
<td>909-0009</td>
<td>280,000A/8990</td>
<td>FX-30, 3-30 watt FM exciter transmitter, solid state, with automatic power control, synthesized frequency control, and low loss filter. 19&quot; rack mount for operation on MHz, single phase 208/240VAC, 50/60Hz.</td>
<td>4,695.00</td>
</tr>
</tbody>
</table>
HOW TO ORDER (Domestic U.S.A.)

ORDERING PROCEDURE:
All sales are made in accordance with Broadcast Electronics, Inc. Terms and Conditions of Sale. No order shall be binding upon Broadcast Electronics, Inc. until accepted by the company in writing at its home office in Quincy, Illinois. Please order by model, stock number and description as they appear in the price schedule. Orders placed by telephone should be confirmed in writing and must be clearly marked “confirming” or we cannot assume liability for duplicate shipments.

PRICES:
Broadcast Electronics, Inc. endeavors to keep published price lists current; however, prices listed herein are subject to change without prior notice.

F.O.B.:
Prices are FOB Quincy, Illinois, or point of shipment. No applicable federal, state or local taxes are included. All transportation costs are the obligation of the buyer, unless otherwise stated.

PAYMENT TERMS:
Several methods of payment are available.
1. CASH—Full payment with the order.
2. COD—This method is recommended for small rush orders and emergency shipments.
3. OPEN ACCOUNT—Orders are accepted from customers with whom we have an established credit line or whose D&B rating is acceptable to Broadcast Electronics, Inc. Open account billing requires payment in full within 30 days of shipment.
4. FINANCE PLAN—On major purchases, time financing of the balance after a 25% down payment may be available. Lease plans may be available. Contact Broadcast Electronics, Inc. Sales Department for details.

WARRANTY ADJUSTMENT:
Broadcast Electronics, Inc. warranty is included in the Terms and Conditions of Sale. In the event of a warranty claim, replacement or repair parts will be supplied FOB factory. At the discretion of Broadcast Electronics, Inc., the customer may be required to return the defective part or equipment to Broadcast Electronics, Inc. FOB Quincy, Illinois or FOB a designated repair depot. Warranty replacements of defective merchandise will be billed to your account. This billing will be cleared by a credit issued upon return of the defective item.

RETURN, REPAIR OR EXCHANGES:
Do not return any merchandise without our written approval and Return Authorization. We will provide special shipping instructions and a code number that will assure proper handling and prompt issuance of credit. Please furnish complete details as to circumstances and reasons when requesting return of merchandise. Custom built equipment or merchandise specially ordered for you is not returnable. Where return of unused merchandise is at the request of, or for the convenience of the customer, a restocking fee of 15% will be charged. No unused merchandise will be accepted for return later than 30 days after shipment. All returned merchandise must be sent freight prepaid and properly insured by the customer. When writing to Broadcast Electronics, Inc. about your order, it will be helpful if you specify the Broadcast Electronics, Inc. factory order number or invoice number.

SHIPPING METHOD:
Unless specifically stated by the buyer, we will exercise our judgment as to method of shipment. A full range of shipping services is available. All goods are either insured or declared for full value and the cost thereof is included as part of shipping charges. Purchaser assumes all responsibility for and risk of loss of, or damage to equipment upon shipment from Broadcast Electronics, Inc. shipping point(s). Should you receive merchandise damaged in shipment, it is your responsibility to file a damage claim immediately with the delivering carrier.

AFTER SALE SERVICE:
Broadcast Electronics, Inc. has supported its products with factory technical service since 1959. In addition to a technically qualified Customer Service Department at its factory, a coast to coast network of “Spotmaster Parts & Repair Depots” are available to assist you. Technical assistance is available by letter or telephone or telegram. For equipment requiring repair or overhaul, arrangements must be made with the Customer Service Department for Return Authorization prior to shipping.

PRODUCT CHANGES:
Broadcast Electronics, Inc. reserves the right without advance notice to make engineering and production changes including substitution of vendor sources for components which may modify the design or specifications of its products, provided said modifications will not materially affect the performance of the product.

OTHER:
In no event is Broadcast Electronics, Inc. liable for consequential damage from late or non delivery, or malfunction or failure of its products.

ADDITIONAL INFORMATION
Additional information and product literature are available from your SPOTMASTER Distributor or Broadcast Electronics, Inc.

PL102-AR 1K CP 380
HOW TO ORDER (Domestic U.S.A.)

ORDERING PROCEDURE:
All sales are made in accordance with Broadcast Electronics, Inc. Terms and Conditions of Sale. No order shall be binding upon Broadcast Electronics, Inc. until accepted by the company in writing at its home office in Quincy, Illinois. Please order by model, stock number and description as they appear in the price schedule. Orders placed by telephone should be confirmed in writing and must be clearly marked “confirming” or we cannot assume liability for duplicate shipments.

PRICES:
Broadcast Electronics, Inc. endeavors to keep published price lists current, however, prices listed herein are subject to change without prior notice.

F.O.B.:
Prices for “ship to” destinations in the USA are FOB Quincy, Illinois, or point of shipment. No applicable federal, state or local taxes are included. All transportation costs are the obligation of the buyer, unless otherwise stated. Shipments will be made with transportation costs collect.

PAYMENT TERMS:
Several methods of payment are available.
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(2) COD—This method is recommended for small rush orders and emergency shipments.
(3) OPEN ACCOUNT—Orders are accepted from customers with whom we have an established credit line or whose D&B rating is acceptable to Broadcast Electronics, Inc. Open account billing requires payment in full within 30 days of shipment. A down payment of 25% is mandatory for automation system orders and may be required on large orders.
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OTHER:
In no event is Broadcast Electronics, Inc. liable for consequential damage from late or non delivery, or malfunction or failure of its products.

ADDITIONAL INFORMATION
Additional information and product literature are available from your SPOTMASTER Distributor or Broadcast Electronics, Inc.
AUDIO SERVICE CENTERS

- Equipped to serve your audio product needs with parts and repairs — both in and out of warranty
- Regional depots reduce parts delivery time and repair turn-around time

1. Ruggins Electronics
3272 E. Willow St
Long Beach, CA 90815
Ph: (213) 598-7007

States Covered:
- Alaska
- Arizona
- California
- Hawaii
- Idaho
- Nevada
- Oregon
- Washington

2. Dyma Engineering
213 Pueblo del Sur
Taos, NM 87571
Ph: (505) 758-2686

States Covered:
- Colorado
- New Mexico
- Oklahoma
- Texas
- Utah

3. TV Engineering Corporation
519 Rudder Road
Fenton, MO 63026
Ph: (314) 343-5695

States Covered:
- Arkansas
- Missouri
- Kansas
- Mississippi
- Louisiana
- Nebraska

4. Broadcast Services, Inc.
Micro Road
Micro, NC 27555
Ph: (919) 284-2102

States Covered:
- Connecticut
- Maine
- Massachusetts
- New Hampshire
- New Jersey
- New York
- Pennsylvania
- Rhode Island
- Vermont

5. Broadcast Services, Inc.
Micro Road
Micro, NC 27555
Ph: (919) 284-2102

States Covered:
- Alabama
- Florida
- Georgia
- North Carolina
- South Carolina
- Tennessee
- Virginia
- West Virginia

6. Allied Broadcasting Equipment
535 South E. St.
Richmond, IN 47374
Ph: (317) 962-8596

States Covered:
- Illinois
- Indiana
- Kentucky
- Michigan
- Ohio

7. Electronic Industries
19 East Irving St
Oaksho, WI 54901
Ph: (414) 235-8930

States Covered:
- Iowa
- Minnesota
- Montana
- North Dakota
- South Dakota
- Wisconsin
- Wyoming

8. Midwest Telecommunications
4700 G. Boston Way
Lanham (Wash. D.C.) MD 20801
Ph: (301) 577-7903

States Covered:
- District of Columbia
- Delaware
- Maryland

9. Nortec West, Ltd.
325 West Fifth Avenue
Vancouver 10, B.C., Canada
Ph: (604) 872-8525

Provinces Covered:
- British Columbia
- Yukon Territory

10. Nortec West, Ltd.
70568 Farrell Road
Calgary, Alta., Canada
Ph: (403) 252-8141

Provinces Covered:
- Alberta
- Manitoba
- NW Territory
- Saskatchewan

6 Bangen Drive
Toronto 17, Ontario, Canada
Ph: (416) 421-9080

Provinces Covered:
- New Brunswick
- Nova Scotia
- Ontario
- Quebec

Broadcast Electronics Inc. Spotmaster® Tape Cartridge Systems