

AUDIO SYSTEMS

STUDIO ACCESSORIES

MULTIPLE DECK MACHINES

TAPE CARTRIDGE MACHINES

MONO & STEREO AUDIO CONSOLES

Spotmaster®



BROADCAST ELECTRONICS INC.

— A FILMWAYS COMPANY —

Spotmaster®

SPOTMASTER® takes pride in presenting one of the most comprehensive catalogs on Tape Cartridge Equipment, systems and accessory audio equipment ever assembled by a manufacturer. Here you will find the most complete range of single deck record/playback units, multiple deck playback equipment, audio consoles and accessories offered by any manufacturer.

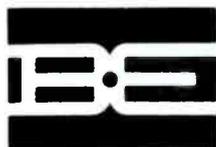
For our overseas customers we offer complete export services as well as equipment conversions compatible with local requirements.

At Broadcast Electronics we take pride in the SPOTMASTER® trademark — the World's Leader in Tape Cartridge Equipment.



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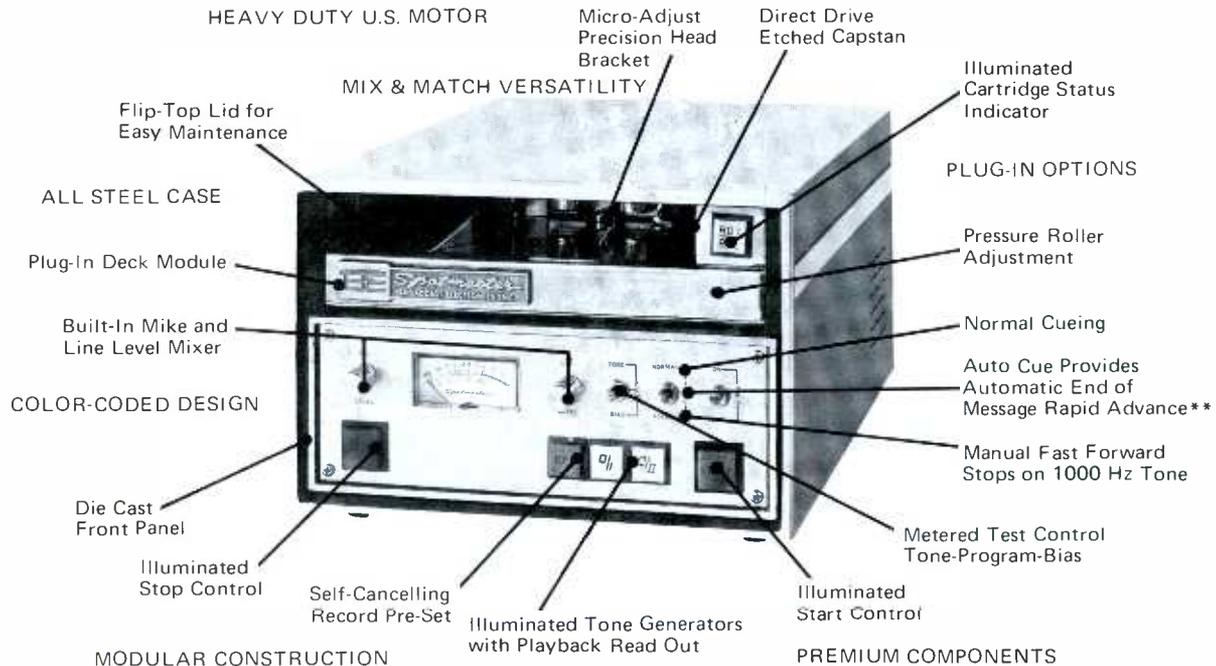


BROADCAST ELECTRONICS INC.

— A FILMWAYS COMPANY —

8810 BROOKVILLE ROAD
SILVER SPRING, MD. 20910
PHONE 301-588-4983
CABLE "SPOTMASTER"

Incomparable **ten70** *Bold New Standard for Tape Cartridge Excellence.*



SPOTMASTER + Ten/70 – New Formula for Success

Every new concept in tape cartridge engineering has been incorporated into the Ten/70 line. SPOTMASTER'S long years of leadership and specialization have created the

ultimate in equipment design. These rugged, versatile models represent the ultimate at sensible prices. Full year labor and parts warranty.

Specifications

Equalization: NAB or IEC Standards
Frequency Response: 50-15,000 Hz ± 2 dB
 30-18,000 Hz ± 4 dB
Distortion: 1% or Less @ OVU (400 Hz)
Signal to Noise: -57 dB or better
Wow & Flutter: Less than 0.2% RMS (NAB unweighted)
Cross Talk: Cue/Program -55 dB or better
Output: -10 dBm/0 dBm/+8 dBm Switchable
 Adjustable 10 dBm each position.
 Peak output +18dBm.
Output Impedance: 600 ohms balanced
 Alternate strapping for 150 ohms
Speed: 7.5 IPS accurate 0.2% or better. Fast
 Forward** to 22.5 IPS (Other speeds
 optional)
Motor: Direct Drive Hysteresis Synchronous
Cue Tones: Stop Cue (1 kHz)
 Cue Trip I (150 Hz) Optional
 Cue Trip II (8 kHz) Optional

Cueing Accuracy: 0.1 Second
Capacity: Size A or B NAB Standard Cartridge
***Input:** Line -24 dBm to 0 dBm or 0 dBm to
 +30 dBm Switchable @ 10,000 ohms
 bridging balanced
 Mike 0.1 mv @ 150 ohms balanced
 (Optional, RP and RP/DL only).
Power Requirement: 117 V/60 Hz, 50 Watts
 220-240 V/50 Hz (Optional)
Controls: Start *Record Preset
 Stop *Line Level
 On-Off *Mike Level
 *VU Meter Advance
 Cartridge Release
 Optional: Cue I (150 Hz) Generator*/
 Sensor
 Cue II (8 KHz) Generator*/
 Sensor
 Auto Cue Automatic Advance
Size: 5-3/8" H, 8-1/2" W, 12" D
Shipping Weight: 15 lbs.

*Applies to RP Models Only **Not available on delay models

- RP unit has provision for recording of cue trip I & II tones on prerecorded cartridge while unit is in playback mode.
- Pre-wired rear panel connectors provided for remote control and telephone answering accessories.
- Rear panel input jack for cue generator.
- Rear panel jack for cue amplifier output (-20 dBm).
- Fast forward auto cue may be overridden by momentary activation of switch to advance position and return to auto position.



Model 1070P Playback

This top-of-the line playback model, like all Ten/70 units features compact and light-weight silhouette styling . . . Stack them, rack them, or use alone where space is critical. All Ten/70 models offer manual fast forward enhanced by optional Auto-Cue providing automatic high speed advance to next message. Optional tone sensors, too for versatile auxiliary switching.



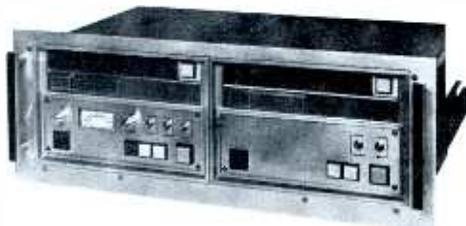
Model 1070RP-DL Record/Play/Delay

Our pioneering concept to offer three units in one is retained in this model . . . Use it as a recorder . . . switch to play only . . . or flip a switch for DL Mode allowing for delayed programming of 5-sec. to 16-min. Ideal for telephone talk shows . . . Censor objectionable material instantly with Mute control. Now also available with Stereo unit.



Model 1070RP-S Stereo/Record/Play

All Ten/70 stereo units now equipped with NEW SPOTMASTER precision Stereo Phase-Lok II Head Bracket to minimize phase problems. Stereo's an old word at SPOTMASTER . . . we've built more of these for broadcasters than all others combined. Ten/70 meets the most demanding needs of today's FM programming and does it all in half the space of a standard rack unit! The full range of Ten/70 options is available in this unit, too.



Models 1070RP & 1070P with Rack Panel Adaptor

Here's where Ten/70 leaves the others behind. Take any two units, add our exclusive rack panel adaptor and you have a pair ready for instant rack-mounting. No cutting, drilling or expensive modification. Chassis rolls out for easy service and you can add or remove a unit instantly.



Model 1070RP with Rack Panel Adaptor & RM-10 Cartridge Rack

Want rack-mounted convenience in odd numbers? Add the RM-10 storage rack to any Ten/70 model, install in a rack panel adaptor and you have built-in storage convenience for 10 Series 300 Cartridges all in just 7-inches vertical space.

Model RC1070 Remote Control



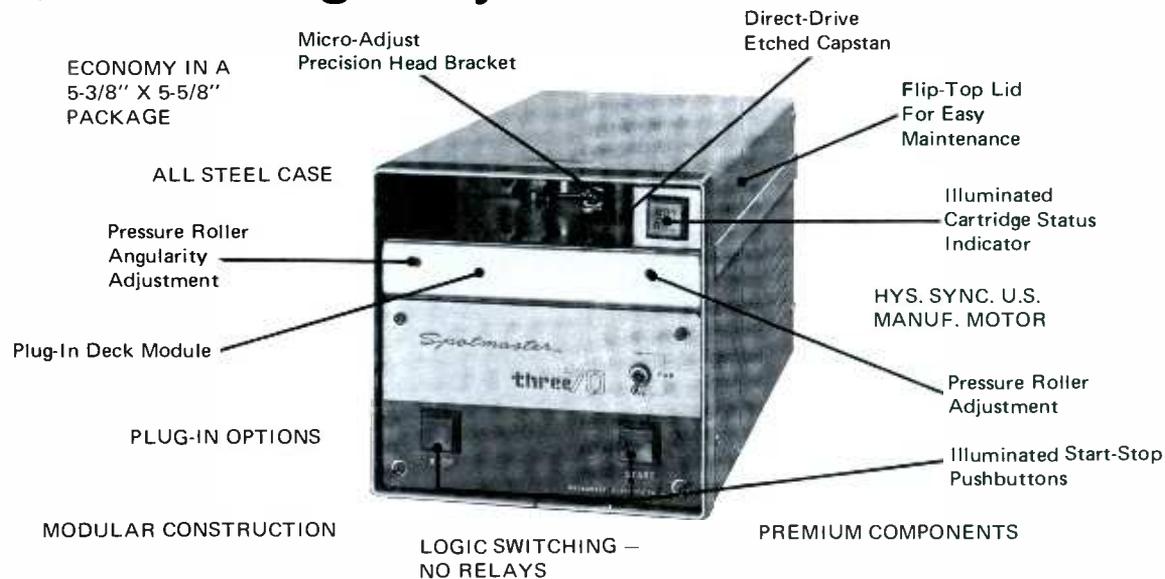
Remote control available for complete external control of all functions. Suitable for mounting in console desk cut-out or in blank rack panel. Measures 2.25" high x 4" deep x 5.5" wide. Mating 24-pin connector furnished and we will fabricate pre-wired cabling to length.

Phase-Lok II Head Bracket

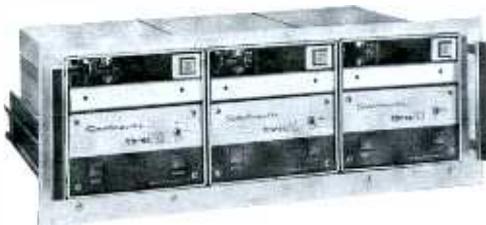


Phase out stereo phase problems with the SPOTMASTER precision PHASE-LOK Head Bracket. Precision tape guidance system and heavy die-cast assembly provides accurate and permanent tape-to-head alignment. Available for use in Ten/70, 500, 303, and 305 cartridge equipment.

The Spacesetter Three/70 Cartridge Playback Unit



The Spotmaster Three/70 is designed around the performance of the Ten/70 and includes: direct-drive synchronous motor, all silicon solid-state circuitry, plug-in modular construction, high output, control logic switching. The playback deck designed by Spotmaster engineers is an electro-mechanical, plug-in deck module.



Instant conversion from table-top to rack operation — merely order rack adaptor and “slide in” up to 3 Three/70 units in one 7” rack height.

Specifications

Frequency Response:	50 to 15,000 Hz, ± 2.5 dB
Equalization:	NAB or IEC Standards
Distortion:	Less than 1.75% @ OVU (400 Hz)
Signal-to-Noise:	-55 dB (ref. to +8 dBm out. (tape not running))
Output:	Adj. to +8 dBm
Max. Output:	+18 dBm (before clipping)
Wow and Flutter (7.5 ips):	Less than 0.2% RMS (NAB unweighted) Less than 0.25% (DIN unweighted)
Cue Circuitry:	Stop Cue (1 kHz) (150 Hz, 8 kHz optional)
Cueing Accuracy:	0.1 second

Speed Accuracy:	$\pm 0.3\%$ @ 7.5 ips $\pm 0.4\%$ @ 3.75 ips
Timing Accuracy:	± 0.5 sec/60 sec @ 7.5 ips
Power Requirements:	117V/60 Hz; less than 30 Watts 220V/240V, 50 Hz; less than 35 Watts

MECHANICAL

Size: 5.625” wide, 5.75” high, 12.5” long
Weight: 12 lbs.

Rear Panel Configuration:
Remote Control/Telco: Octal, 8 pin
Line In/Out: Jacks, 3 connector phone
Output Level Potentiometer, locking type
Contact closures derived from Cue Trip I and II Tone Sensors

Optional Accessories

600 ohm balanced transformer output
Telco Telephone Answering Accessory
Rack Adaptor with or without rack slides

BE 102 Remote Control
220V/240V, 50 Hz power conversion
3.75 ips speed option
Cue Trip I (150 Hz) and Cue Trip II (8 kHz) Tone Sensors.

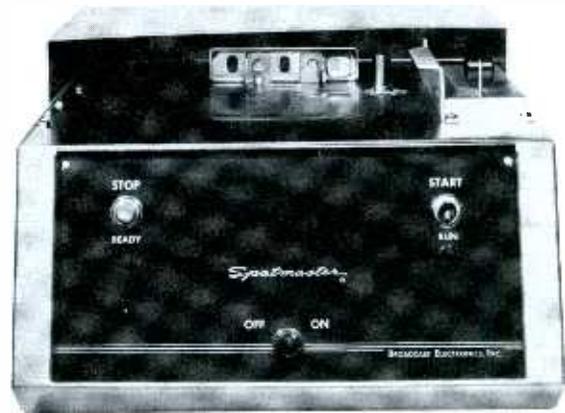
The Compact 400 Series

Dependability at lowest possible cost



The Spotmaster 400 B

Combination Recorder- Playback Unit



The Spotmaster 405 B

Companion Playback Unit

Traditional Spotmaster Performance for the Economy-Minded Station

Don't let their low price fool you. These all-silicon solid state SPOTMASTER 400's are built up to a standard, not down-to-a-price. Offered in record-playback (Model 400) and playback-only (Model 405) versions, even the smallest

station can enjoy SPOTMASTER pushbutton broadcasting. Now supplied with adjustable head mounts at no extra cost. 90-day parts and labor warranty.

Specifications

Equalization:	NAB Standard
Frequency Response:	±2 dB 50 - 12,000 Hz @ 7.5 IPS.
Distortion:	2% or less @ 0 VU recording level.
Signal to Noise Ratio:	50 dB or better.
Wow and Flutter:	0.2% or less @ 7.5 IPS.
Tape Speed:	7.5 IPS
*Input (Line):	0.1 Volt (Bridging) (Mike input optional)
Output:	-10 dBm @ 600 ohms. (Transformer output optional extra.)
Cue-Tones:	Primary - 1,000 Hz (stop) Cue-Trip No. 1 - 150 Hz (optional)
Cueing Accuracy:	0.1 second.
Starting Time:	0.1 second.
Playing Time:	1 second to 31 minutes @ 7.5 IPS.

Power Requirements:	105 - 125 V ac, 60 Hz, 45 watts (115/220 V ac, 50 Hz optional extra).
Power Supply:	Zener Controlled. Bridge Rectifier.
Motor:	Hysteresis Synchronous (Heavy Duty U.S. Made)
Controls:	*Gain *Record/Play/Switch Start Switch Stop Switch Output Level On-Off
Size:	10-1/4" W, 12-3/4" L, 6-5/8" H.
Weight:	18 lbs. (Model 400A) 15 lbs. (Model 405A)
Finish:	Silver gray with ebony panel.

*Applies to Model 400 combination Record/Play units only.

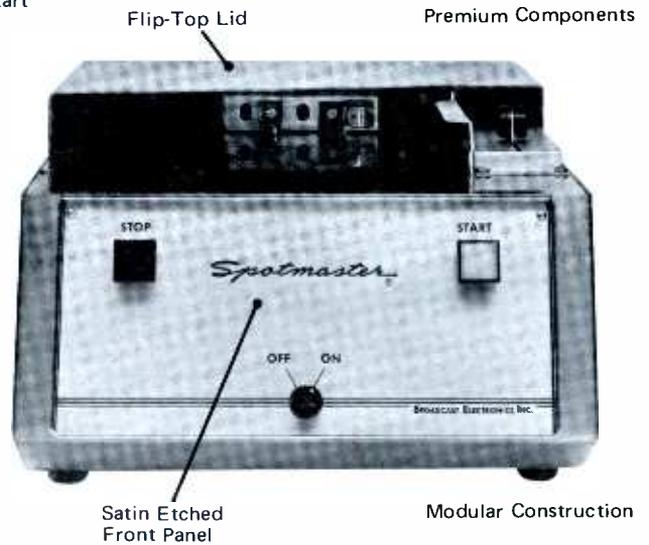
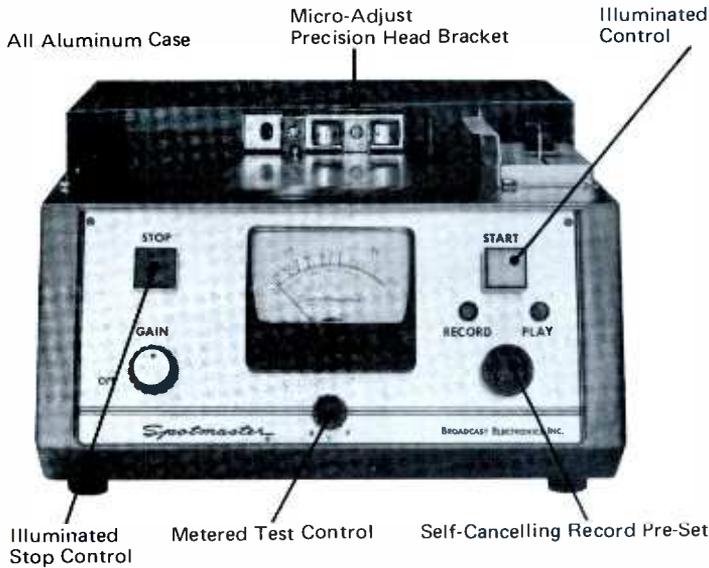
Optional Accessories

CUE TRIP¹ AMPLIFIER (150 Hz)
CUE TRIP¹ GENERATOR (150 Hz)

BALANCED OUTPUT TRANSFORMER
MICROPHONE PREAMPLIFIER

The Compact 500 Series

Model C . . . Traditional Favorite . . . Moderately Priced Meets or Exceeds NAB Specifications



The Spotmaster 500 D

Combination Recorder- Playback Unit

The Spotmaster 505 D

Companion Playback Unit

Model C equipment includes models to match every programming need: record-playback and play-back-only . . . compact and rack-mount. Specifications and performance equal or exceed NAB requirements. Features include new styling and ease of operation, all silicon solid-state modular

design, choice of 1, 2 or 3 automatic electronic cueing tones, separate record and play heads, with adjustable head-mounts, A-B monitoring, biased cue recording, triple zener controlled power supply, transformer output, automatic record pre-set. Full Year Labor and Parts Warranty.

Specifications

Equalization:	NAB Standard.
Frequency Response:	±2 dB 50 - 12,000 Hz @ 7.5 IPS. ±3 dB 40 - 15,000 Hz @ 7.5 IPS.
Distortion:	2% or less @ 0 VU recording level.
Signal to Noise Ratio:	50 dB or better.
Wow & Flutter:	0.2% or less @ 7.5 IPS.
Tape Speed:	7.5 IPS.
*Input (Line):	0.1 Volt (Bridging)
*Input (Microphone, 150 ohms):	0.25 mv (-70 dBm)
Output:	+4 dBm @ 600 ohms. (Transformer output)
Cue-Tones:	Primary - 1,000 Hz (Stop) Cue-Trip No. 1 - 150 Hz (Optional) Cue-Trip No. 2 - 8,000 Hz (Optional)
Cueing Accuracy:	0.1 Second.

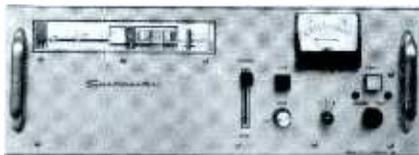
Starting Time:	0.05 Second.
Power Requirement:	105 - 125 V ac, 60 Hz, 50 watts (115/220 V ac, 50 Hz optional extra).
Playing Time:	1 second to 31 minutes @ 7.5 IPS.
Motor:	Hysteresis Synchronous (Heavy Duty U.S. Made)
Controls:	*Gain *Automatic Record Pre-set *VU Meter Selector Start Switch Stop Switch Output Level On-Off
Size:	10-1/4" W, 12-3/4" L, 6-5/8" H.
Weight:	18 lbs. (Model 500) 15 lbs. (Model 505)
Finish:	Silver Gray and satin etched aluminum panel.

*Applies to Model 500 combination Record/Play units only.

BE-102 Remote Control Unit

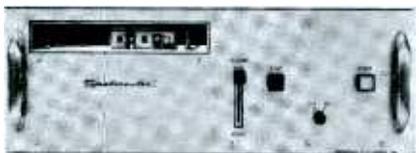
BE-102 is designed to externally control up to three single deck units. BE-102 offers start and stop functions on convenient desk-top panel with 15-feet of cable.





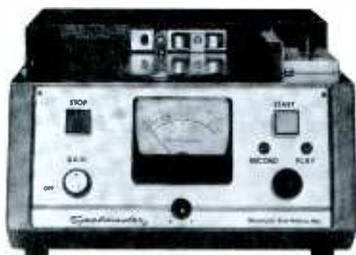
Model 500 DR Recorder/Playback

500 Series rack-mounted models offer the same dependable feature found in compact units in a handy roll-out version 19" wide by 7" high. Heavy-duty chassis slides mount to standard equipment rack allowing unit to be removed for routine maintenance . . . Model 500CR specifications same as compact Model 500C except for dimensions, weight 23 pounds and optional mike pre-amp.



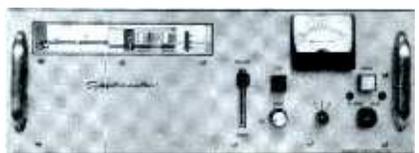
Model 505 DR Playback

This rack-mounted playback unit, identical in size and mechanical make-up to the 500CR, features front panel load lever for operating convenience as well as other standard SPOTMASTER features . . . Series C rack units handle all NAB cartridge sizes for maximum playback capacity.



Model 500 DDL Recorder/Playback/Delay

The SPOTMASTER DL concept makes use of standard cartridges of pre-determined lengths to record, store and playback any type of programming material . . . The unit also converts immediately at the flip of a switch to a standard recorder/playback . . . No need to buy a unit which will only perform the delay function . . . SPOTMASTER gives you this feature for only slightly more than the cost of a regular cartridge machine.



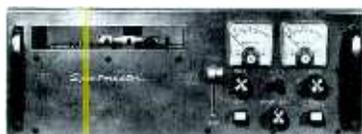
Model 500 DRDL Recorder/Playback/Delay

Here's the 500CRDL offering the versatility of delayed programming in the 500 series rack-mounted chassis . . . Instant front panel access to muting and conversion controls . . . A unit built to be your station's work horse at a common sense price.



Model 500 CS Recorder/Playback/Stereo

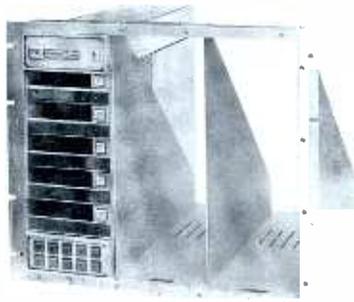
For the stereo-minded station here's familiar SPOTMASTER compact styling . . . Big enough to do the job . . . small enough to fit just about any situation . . . Two large easy-to-monitor VU meters and dual channel gain controls add to the feature-packed front panel . . . 22 lbs. . . Playback stereo only on the 505BS, same size as Model 505C.



Model 500 CRS Recorder/Playback/Stereo

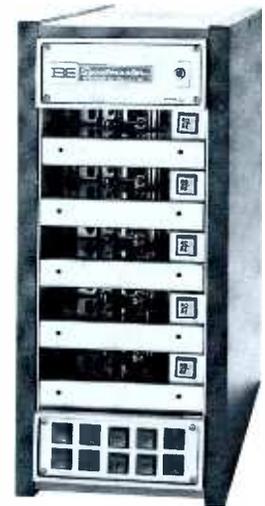
Full rack mounted stereo record/play features in the same space as the mono counterpart . . . The 500BRS offers the full range of SPOTMASTER features completely within NAB specifications. Rack mounted stereo playback available, too in Model 505BRS.

MINI SERIES Multi Channel Tape Cartridge Playback Systems

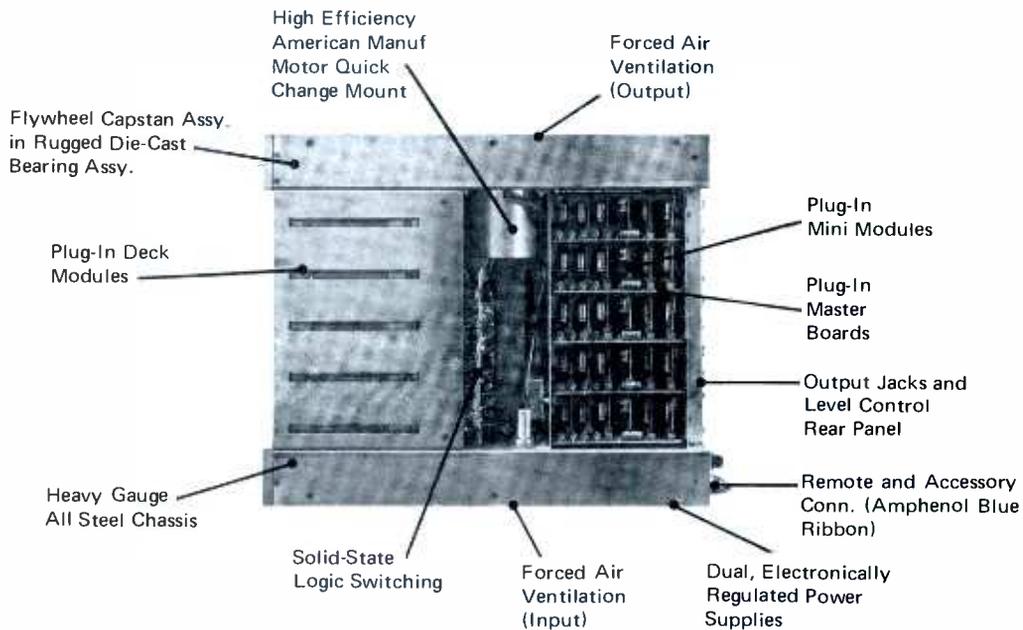


RA 35
Rack Panel Adapter

- MINI-SPACE, MAXI-PERFORMANCE
- LOGIC SWITCHING
- ALL SILICON SOLID-STATE CIRCUITRY
- COMPLETELY PLUG-IN, MODULAR CONSTRUCTION
- FORCED AIR VENTILATION
- MONO OR STEREO
- POWER LINE VOLTAGE SURGE PROTECTION



Mini 305 D
5-Deck Playback



The new SPOTMASTER Mini-Series playback units are designed to provide the latest innovations in Multi-channel tape cartridge playback systems. The Mini 305D Series provides 5 plug-in playback decks in a compact package for manual operation, or for use in programmed automation systems. All functions may be remote-controlled. The 305D is designed to accept plug-in options without circuit modifications. Model 305D is designed to provide 5 isolated audio outputs. The 305D-SW is equipped with an

audio-switcher that places only one output on the program line at a given time without any depreciation in audio quality.

Each module may be operated as a free-standing, table-top unit or may be mounted in a 19" rack adaptor panel depicted above which will accommodate (3) Mini 305D systems. Optional remote control is available.

ESD-15 Sequencer

Pre-program playback sequence of 1 to 15 decks with the ESD-15 Sequencer. May be used with Mini-Series 303 and 305. Rack mounts in 3-1/2".



Specifications

ELECTRICAL:

Frequency Response: ±2 dB 50 Hz to 15,000 Hz
±4 dB 30 Hz to 18,000 Hz

Distortion: 1.5% or less @ 0 VU, Ref: 400 Hz

Signal to Noise: Unweighted -55 dB or better
Ref: NAB Standards Section 2.35

Cross Talk: Cue/Pgm: -55 dB or better @ 1KHz
Ref: NAB Standard 2:40

Equalization: NAB Standard (Other Standards: CCIR, DIN, etc. available at special request.)

Output Level: -10/0/+8 dBm switchable,
+18 dBm, peak

Output Impedance: 600 ohm balanced transformer out, alternate strapping for 150 ohm.

Cue Tones: Primary: 1000 Hz (Stop/Re-cue)
Secondary: 150 Hz (End of Message-Optional)
Tertiary: 8000 Hz (Auxiliary-Optional)

Cue Output: N/O contact closure available on rear panel for 150 Hz and 8 kHz tones.

Cueing Accuracy: 0.1 seconds

Cue Sensitivity: Exceeds NAB Standards by 10 dB.

Speed: 7½ IPS (Standard)
3¾ IPS (Optional)

Speed Accuracy: ±0.4% or better.

Wow & Flutte: 0.2% or better @ 7½ IPS
0.25% or better @ 3¾ IPS (Optional)

Capacity NAB

Standard Cartridge: Size "A"

Power Requirements: 105 - 125 V ac
60 Hz @ 75 watts
220 - 250 V ac
50 Hz @ 75 watts
(Other Line Standards on Special Request).

Controls: Front Panel illuminated pushbuttons for Start (green), Stop (red), and Ready Cartridge Release (yellow).
Rear Panel each channel.
Output: 3 circuit std. phone jack.
Level Switchable: Slide Switch
Level Trim: Potentiometer

Remote and Accessory Control Connections:

Remote: Amphenol Blue Ribbon (50 pin) connector providing remote control and indication of all front panel pushbutton control functions.

Accessory: Amphenol Blue Ribbon (24 pin) connector providing normally open relay contacts from optional 150 Hz and 8000 Hz auxiliary tone sensors.

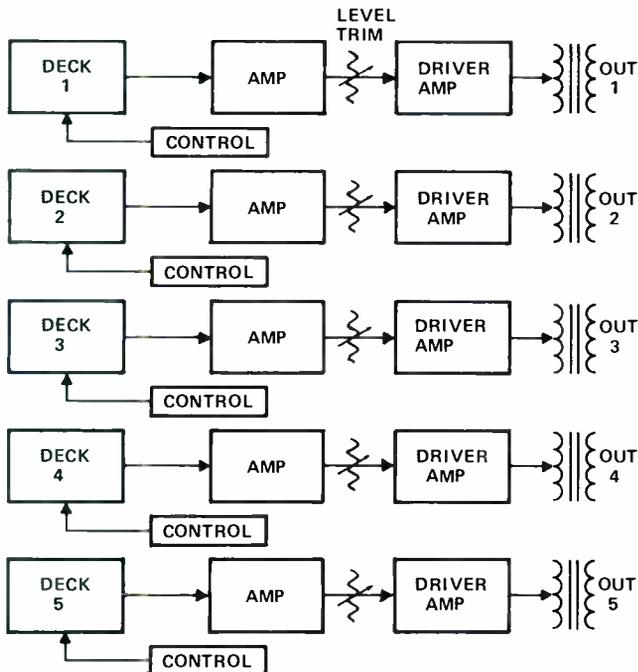
MECHANICAL:

Overall Dimensions: 14.39" H x 5.44" W x 17.75" D.

Weight: 42 lbs.

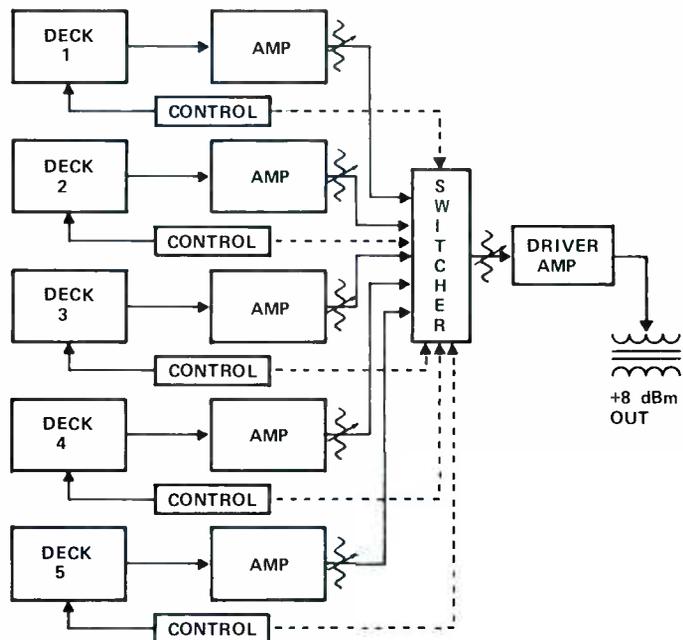
Rack Panel Adapter: RA35 (for 3 - Model 305): 15¼" H x 19" W x 18" D

Typical Audio Block Diagrams



305D

PROVIDES 5 INDIVIDUAL OUTPUTS

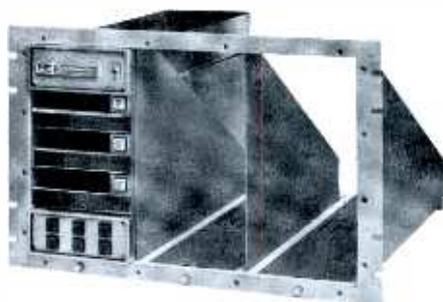


305D-SW

SUPPLIED WITH SWITCHER
PROVIDING ONE AUDIO OUTPUT

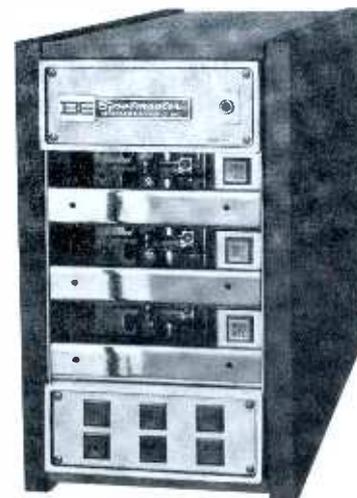
For stereo units, left and right channels are identical to the single channel shown above.

MINI SERIES Multi Channel Tape Cartridge Playback Systems

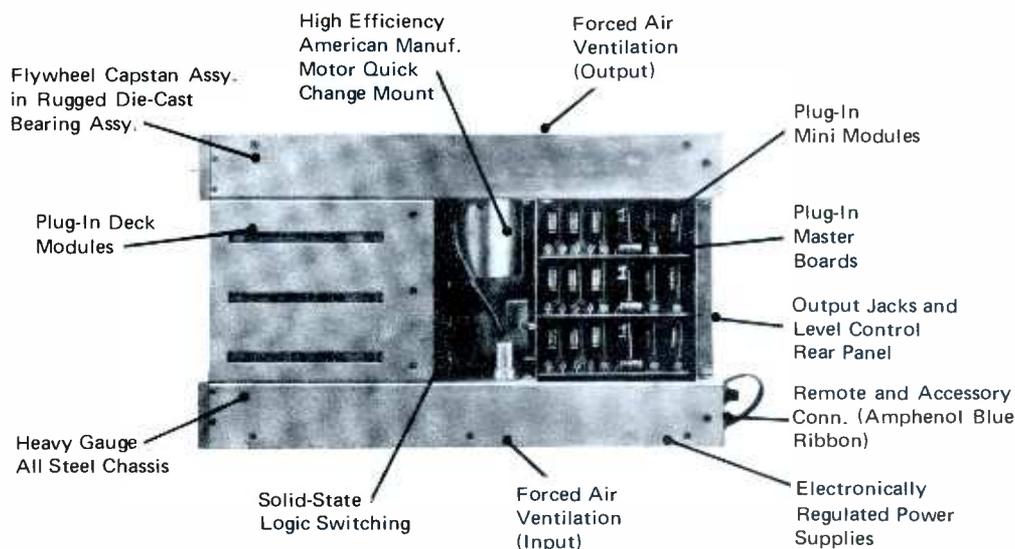


RA 33
Rack Panel Adapter

- MINI-SPACE, MAXI-PERFORMANCE
- LOGIC SWITCHING
- ALL SILICON SOLID-STATE CIRCUITRY
- COMPLETELY PLUG-IN, MODULAR CONSTRUCTION
- FORCED AIR VENTILATION
- MONO OR STEREO
- POWER LINE VOLTAGE SURGE PROTECTION



Mini 303 D
3-Deck Playback



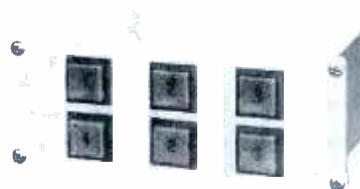
The new SPOTMASTER Mini-Series playback units are designed to provide the latest innovations in Multi-channel tape cartridge playback systems. The Mini 303D Series provides 3 plug-in playback decks in a compact package for manual operation, or for use in programmed automation systems. All functions may be remote-controlled. The 303D is designed to accept plug-in options without circuit modifications. Model 303D is designed to provide

3 isolated audio outputs. The 303D-SW is equipped with an audio-switcher that places only one output on the program line at a given time without any depreciation in audio quality.

Each module may be operated as a free-standing, table-top unit or may be mounted in a 19" rack adaptor panel depicted above which will accommodate (3) Mini 303D systems. Optional ESD-15 Sequencer available.

Model 303 D Remote Control

Remote Control unit duplicates front panel start-stop functions. Suitable for mounting in console desk cut-out; measures 5" wide, 1-7/8" high and 2-7/8" deep.



Specifications

ELECTRICAL: (@ 7.5 IPS)

Frequency Response:	±2 dB 50 Hz to 15,000 Hz ±4 dB 30 Hz to 18,000 Hz
Distortion:	1.5% or less @ 0 VU, Ref: 400 Hz
Signal to Noise:	Unweighted -55 dB or better Ref: NAB Standards Section 2.35
Cross Talk:	Cue/Pgm: -55 dB or better @ 1KHz Ref: NAB Standard 2:40
Equalization:	NAB Standard (Other Standards: CCIR, DIN, etc. available at special request.)
Output Level:	-10/0/+8 dBm switchable, +18 dBm, peak
Output Impedance:	600 ohm balanced transformer out, alternate strapping for 150 ohm.
Cue Tones:	Primary: 1000 Hz (Stop/Re-Cue) Secondary: 150 Hz (End of Message-Optional) Tertiary: 8000 Hz (Auxiliary-Optional)
Cue Output:	N/O closure available on rear panel for 150 Hz and 8 KHz tones.
Cueing Accuracy:	0.1 Seconds.
Cue Sensitivity:	Exceeds NAB Standards by 10 dB.
Speed:	7½ IPS (Standard) 3% IPS (Optional)
Speed Accuracy:	±0.4% or better.
Wow & Flutter:	0.2% or better @ 7½ IPS. 0.25% or better @ 3% IPS (Optional)

Capacity NAB

Standard Cartridge:	Size "A"
Power Requirements:	105 - 125 V ac 60 Hz @ 60 watts 220 - 250 V ac 50 Hz @ 60 watts (Other Line Standards on Special Request)
Controls:	Front Panel illuminated pushbuttons for Start (green), Stop (red), and Ready Cartridge Release (yellow). Rear Panel each channel. Output: 3 circuit std. phone jack. Level Switchable: Slide Switch. Level Trim: Potentiometer.

Remote and Accessory Control Connections:

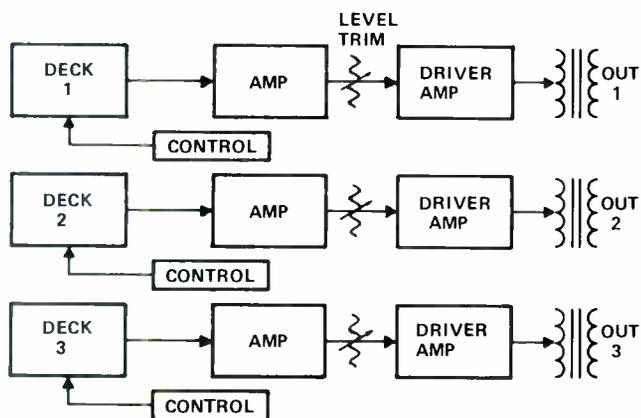
Remote:
Amphenol Blue Ribbon (50 pin) connector providing remote control and indication of all front panel pushbutton functions.

Accessory:
Amphenol Blue Ribbon (24 pin) connector providing normally open relay contacts from optional 150 Hz and 8000 Hz auxiliary tone sensors.

MECHANICAL:

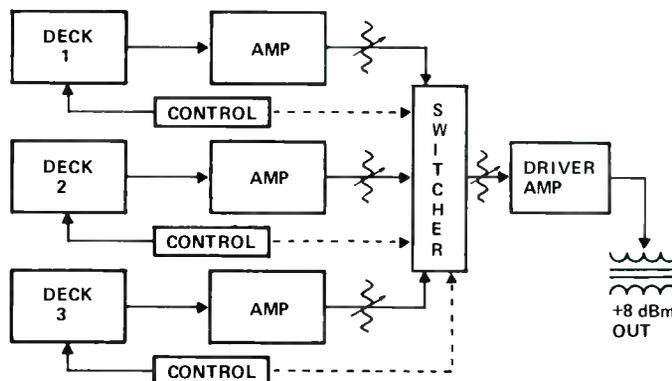
Overall Dimensions:	10.45" H x 5.44" W x 17.75" D.	x
Weight:	30 lbs.	
Rack Panel Adapter:	RA33 (for 3 - Model 303): 12¼" H x 19" W x 18" D	

Typical Audio Block Diagrams



303D

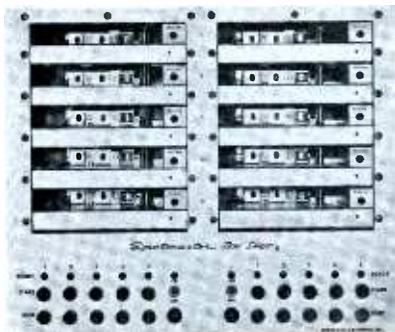
PROVIDES 3 INDIVIDUAL OUTPUTS



303D-SW

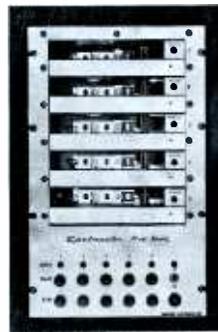
SUPPLIED WITH SWITCHER
PROVIDING ONE AUDIO OUTPUT

TEN SPOT®



Model 610CR

FIVE SPOT®



Model 605C

SPOTMASTER TEN·SPOT and FIVE·SPOT multiple cartridge units are capable of manual operation or may be incorporated into programmed automation systems making use of one, two or three NAB standard cueing tones.

A flywheel loaded common capstan supplies tape motive force, the flywheel in turn being driven by a heavy duty hysteresis synchronous motor. Individual power supplies are provided for each solenoid thereby making each deck independent of the other and, in the TEN·SPOT, each module of five decks is completely separate and independent of the other five deck module both mechanically and elec-

tronically. Each reproduce channel is separately equipped with cueing amplifier/s and a program amplifier with the output level adjustable to +4 dBm by means of locking type controls. The amplifier power supply is transistorized and zener regulated.

Facilities are provided on the rear panel for remote control and for inter-connections between channels so as to permit automatic sequencing from channel to channel. All amplifiers are plug-in modular units. Enclosed plug-in relays are used throughout.

Specifications

Equalization: NAB Standard
Frequency Response: ±2 dB, 50 Hz - 12 kHz
 ±4 dB, 50 Hz - 12 kHz
Distortion: 2% or less @ Normal recording level
Signal-to-Noise Ratio: 55 dB, ref. 3% THD
Wow and Flutter: .2% or less (RMS)
Tape Speed: 7½ ips (3¾ ips available)
Output Level: Adjustable to +4 dBm @ 600 ohms
Output Load Impedance: 600 Ohms (emitter follower)
 *600/150 Ohms (transformer output)
Cueing Accuracy: .1 second
Cueing Tones: Primary - 1,000 Hz (Stop/Re-Cue)
 *Cue Trip #1: 150 Hz (end of message)
 *Cue Trip #2: 8,000 Hz (auxiliary)
Playing Time: 1 sec. to 16 mins. per deck @ 7½ ips using NAB type A & B cartridges

*Optional

Capacity: FIVE·SPOT - 5 type A or B cartridges
 TEN·SPOT - 10 type A or B cartridges
Circuitry: All silicon solid state
Power Supply: Transistor filtered, zener regulated
Power Requirements: 108-125 VAC, 60 Hz,
 75 watts - FIVE·SPOT
 150 watts - TEN·SPOT
Dimensions: FIVE·SPOT
 9-13/16" W x 15" D x 15¾" H
 TEN·SPOT
 19" W x 15" D x 15¾" H
Mounting: TEN·SPOT - 19" rack (Model 610CR)
 FIVE·SPOT - Walnut Formica Cabinet (Model 605C)
 FIVE·SPOT - in 19" rack panel with cartridge storage cubicle (Model 605CR)
Weight: FIVE·SPOT - 44 pounds
 TEN·SPOT - 89 pounds

Optional Accessories



SW 5B AUDIO SWITCHER

Provides a single balanced output automatically muting non-active channels.



MRM 600A RECORDING MODULE

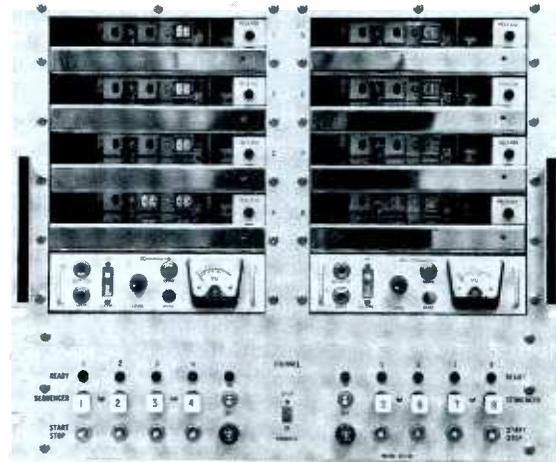
Remove one playback deck, insert MRM 600 for instant conversion to record capability.



BE 106 REMOTE CONTROL

Illuminated Start/Stop switches plus "electronic bookmark" sequence indicator

Automatic Audio System



The SPOTMASTER 610CX is a professional, multi-channel, endless-loop tape cartridge Recorder/Reproducer. The system is provided with 6 Playback and 2 Record/Playback channels. The two record/playback channels may be utilized for recording purposes while the other playback channels are in use. The 610CX may be operated as one, 8 channel system, or as two, 4 channel systems. A front-panel

“Split-Combined” function switch is provided for the selection of this mode of operation.

The Automatic Audio System is equipped with an integral sequential switcher that may be programmed to automatically playback any of two to eight cartridges in any pre-selected sequential order.

Specifications

Frequency Response: ± 2 dB, 50 Hz - 12 kHz
 ± 4 dB, 50 Hz - 12 kHz

Equalization: NAB Standard

Output Level: -4 dBm, ± 3 dBm

Cueing Tones: 1 KHz, 150 Hz

Tape Speed: 7.5 ips, 3.75 optional

Playing Time: up to 16 min. @ 7.5 ips

Drive: Each 4 channel unit is driven by a common capstan thru a belt and pulley.

Power: 108-125 vac, 60 Hz, 200 watts; (optional 50 Hz)

Signal-to-Noise: 50 dB @ 3% THD

Distortion: 2% or less

Wow, Flutter: 0.2% RMS

Inputs: (2) microphone, 250 uv sens. low impedance
 (2) Line, 0.1 v sens., 2.5 k nom. impedance

Cartridges: NAB types A, B

Motors: (2) Hys. Sync.

Circuitry: Modular, solid-state

Power Supply: Transistorized, zener regulated

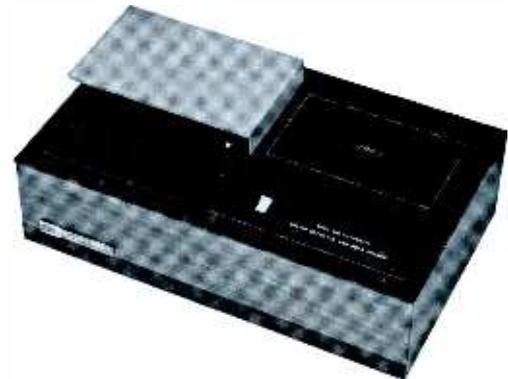
Dimensions: 19" wide x 15.75" high x 15" deep

Mounting: Standard 19"

Weight: 85 pounds

Automatic Splice Detector and Bulk Eraser

Model BESD-500



- SIMPLIFIED OPERATION AND DESIGN. AUTOMATIC START AND EJECTION.
- AUTOMATICALLY STOPS SPLICE WITHIN 1" BEYOND CAPSTAN.
- PRESSURE SENSITIVE FUNCTION. DOES NOT REQUIRE PRE-RECORDED SIGNAL.
- PRE-SET TO SENSE ALL 1.5 MIL (.0015 inch) SPLICING TAPES. CAN BE ADJUSTED.
- NO MANUAL POSITIONING OF SPLICE IS REQUIRED.
- ELIMINATES ANNOYING NOISE EFFECT OF RECORDING OVER SPLICE.
- ACCEPTS A, B, AND C SIZE (NAB) TAPE CARTRIDGES.
- EXERCISES TAPE TO IMPROVE PERFORMANCE.
- DETECTS SEVERE TAPE FRACTURES.
- SAVES STUDIO MAN-HOURS BY MINIMIZING SPLICE SEARCH TIME.
- BUILT-IN BULK ERASER.

The unit will locate any splice and automatically stop the cartridge with the splice located within an inch beyond the capstan, permitting transcriptions without the annoying noise and skips associated with sound-on-splice during playback.

The device operates on a principle of pressure sensitivity and does not require any pre-recorded signal in its function. A heavy duty bulk eraser is also incorporated in the unit as an added convenience.

Specifications

Power: 117 VAC, 60 Hz, 70 watts
250 watts (with erase)
Size: 16-5/8" W x 6-1/4" H x 10-1/8" D
Weight: 18 lbs.
Tape Speed: 15 ips

Cartridge Machine Maintenance and Alignment Supplies

Spotmaster cartridge machine maintenance and alignment accessories are available as kits. Each kit contains those supplies required to keep a cartridge machine operating at optimum performance. Kits contain:

- Head gage blocks for head alignment.
- Allen wrenches for head and pressure roller adjustments.
- Test tapes (NAB).
- Extender Cards.
- Pen oiler for lubricating capstan bearings.
- Cleaning fluid.
- Maintenance manuals.

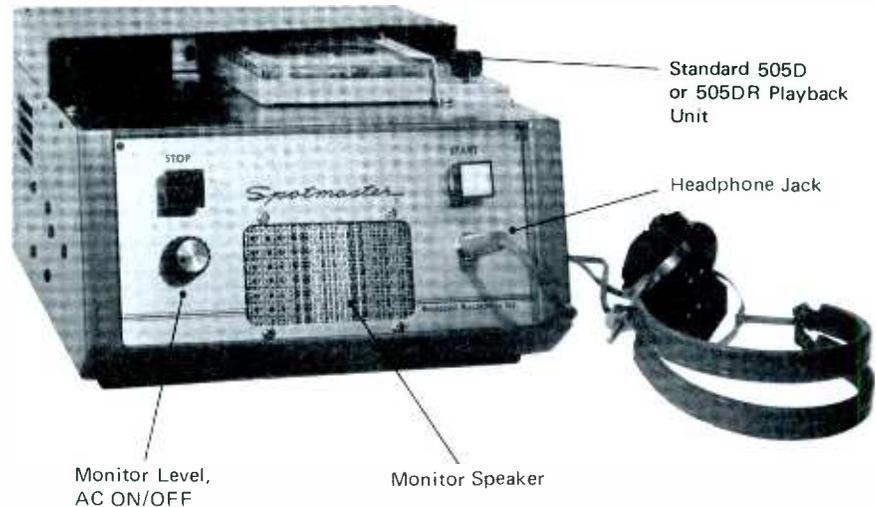


News Bureau Audition Unit

MODEL 505D/A PLAYBACK UNIT

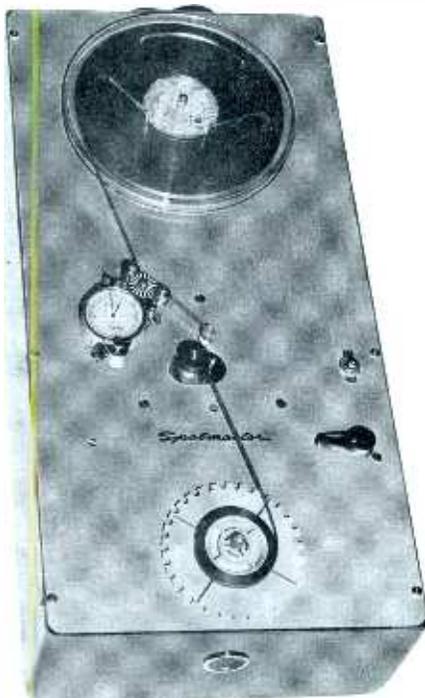
Now available with 505D or 505DR series playback units, a built-in monitor amplifier/speaker system, level control and headphone monitoring facility. Headphone impedance, 8 ohms nom.

Other specifications as per model 505D.



Model 505D/A Playback unit with self-contained audition amplifier system.

BETM-100 Tape Cartridge Winder

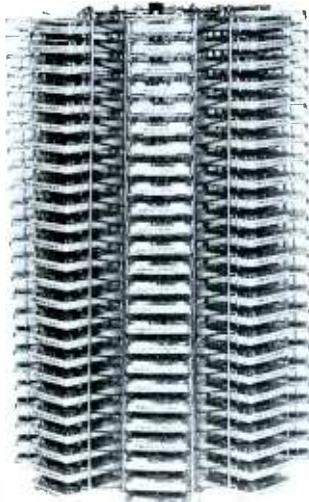


The SPOTMASTER Tape Cartridge Winder is a rugged, dependable and field tested tape cartridge winder which fills a need in every station using cartridge equipment. It is no longer necessary to limit your cartridge operation by using only stock sizes or to tie up your conventional tape equipment to load tape cartridges. The SPOTMASTER Winder, will handle all reel sizes and runs at 22½" per second. Worn tape in old cartridges is easily replaced. New or old cartridges may be wound to any length. TP60B Tape Timer installed, optional.

Specifications

Size:	10" W x 20" L x 6¼" H.
Weight:	9½ lbs.
Power Requirements:	117 V ac, 50/60 Hz, 30 watts
Winding Speed:	22½ IPS.
Drive Motor:	4 pole induction.
Tape Up Reel:	Up to 7¼" dia.
Capacity:	Handles supply reel up to 3600' 1 mil lubricated tape.

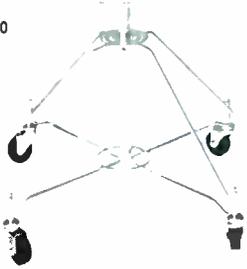
Wire Units



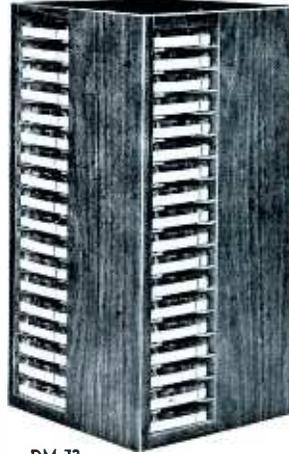
LS-200 Lazy Susan

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

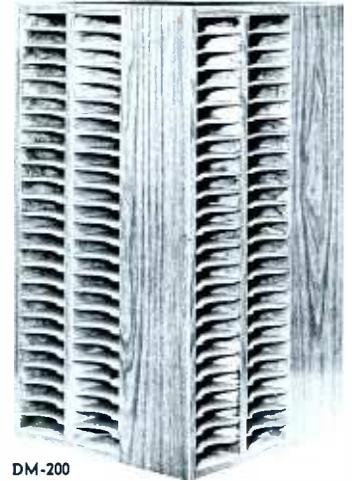
LS-200



Modular Units



DM-72



DM-200

DM-40 Walnut Woodgrain Finished Cabinet

Lazy-Susan, designed for table-top operation; holds 40 "A" cartridges, 9-1/2" W x 8" D x 11-7/8" H. Weight 6-1/2 lbs.

DM-40



Desk Mount Modules — Rotating racks present four-sided storage in attractive Walnut Formica. DM-72 holds 72 cartridges, measures only 22" x 11" x 11". DM-200 provides 200 storage slots. 29½" x 15¾" x 15¾"

DM-20 Walnut Woodgrain Finished cabinet

Holds 20 "A" cartridges. Units may be stacked; 9-1/2" W x 4" D x 10-7/8" H. Weight 3-1/4 lbs.

DM-20



RS-25 RACK SECTION

LS-100 Lazy Susan

Designed for table top use. Holds 100 cartridges with 4 removable RS-25 sections. Weighted base. Ball bearing rotating stand. 39" high, 15" diameter.

LS-100



RM-100

RM-100 Wall Mount Rack

Holds 100 series 300 cartridges in minimum space. Walnut Formica trim. 2' x 2' x 4-3/8".

RM-20 is designed for standard 19" rack installation. Put vacant rack space to good use. Holds 20 series 300 cartridges in only 5¼" vertical space. Made of aluminum.



RM-20

Model A-2 Audiopak Broadcast Tape Cartridge



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. Thanks to Audiopak's unique patented design, the problems usually associated with continuous loop tape cartridges have been totally eliminated in the new Model A-2. The result is a tape cartridge that provides the ultimate in effective tape guidance and control, with minimal maintenance. Available empty or loaded with Formula 17 lubricated tape from 20 seconds to 10.5 minutes play time.



200C/220C

300C/330C



Tape Erasers

Handy bulk erasers essential for cartridge users . . . Assures clean, noiseless tape . . . Model 200C hand held, easy to use with 6-foot cord and pushbutton thumb switch . . . Model 220C same at 230 VAC for overseas use . . . Model 300C heavy duty table-top unit with spindle . . . Erases cartridges and all reels up to 10½ inches diameter, 1-inch wide. Model 330C for 230 VAC.

Tape Tags

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



BET-50 Tape Timer

Precise tape or speed measuring device . . . Scale calibrated in minutes and seconds at 7½ or 3¾ IPS . . . Features reset knob and strobe disc for speed checks . . . Use with reel-to-reel or cartridge units.

Tape Splicer



Model TS7S by Robins 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 . . . 4 oz. bottles, 16 and 32 oz. cans.



Head Demagnetizer

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.

Alignment Tapes

Specially pre-recorded cartridges contain 10 kHz alignment tones . . . Available mono or stereo . . . NAB Test Tape No. 3 contains complete program test frequencies consistent with NAB cartridge specifications.



Fidelipac Cartridges



Series 300, 600, 1200 available empty or in assorted pre-loaded sizes . . . Custom winding provided . . . Complete stock of cartridge replacement parts. No minimum orders.

Lubricated Tape

World-renowned Scotch Recording Tape type 156 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 Audio Devices.



Spotmaster®

**50 SERIES MONO
AUDIO CONSOLES**



4BEM-50R 4 Mixer Mono Rack Mount



4BEM-50 4 MIXER MONO

- 4 MIXER MONAURAL, SINGLE CHANNEL CONSOLE
- ALL MIXERS ACCEPT HIGH OR LOW LEVEL INPUTS
- PLUG-IN MUTING RELAY
- TABLE TOP OR RACK MOUNTING

The monaural 4BEM-50 is a complete small console ideal for production, on-air, educational, or CATV use. The 4 mixers each accept two switch selectable inputs for a total of eight. Each mixer preamplifier can be wired for either microphone or line level sources. The mixers are long-life, sealed units for quiet, trouble-free operation. Speaker and headphone amplifiers are built-in for moni-

toring the console output, an external source ("off-the-air"), or the cue circuit. Each mixer is equipped with a cue position which also feeds a built-in cue speaker. The cue speaker and outputs are controlled by a muting relay supplied as standard. The heavily filtered power supply is mounted in the cabinet. The optional rack adapter permits mounting the console in a standard 19" rack.

Specifications

Inputs:

Number

8 inputs to 4 mixers, High or Low level, strappable.

Low Level

150 ohm balanced; -65 dBm nominal, -42 dBm maximum; maximum gain 90 dB.

High Level

Balanced Bridging (10K ohms each side to ground); -20 dBm nominal, 0 dBm maximum, maximum gain 50 dB.

Outputs:

Program

600 ohms, transformer balanced. +8 dBm nominal, +15 dBm maximum.

Monitor

1.5 Watts RMS at 8 ohms.

Cue

0.5 Watts RMS at 4 ohms. Internal cue speaker provided; external connections available.

Headphones

0.5 Watts RMS at 8 ohms. Front panel jack for 8 ohms, 16 ohms, or HiZ headphones.

Frequency Response:

Program Output

±2 dB, 30 Hz to 20 KHz at 0 dBm.

Monitor Output

±2 dB, 40 Hz to 20 KHz at 1 Watt into 8 ohms.

Power Requirements:

30 Watts; 117 VAC 50/60 Hz or 230 VAC 50/60 Hz.

Specifications (Cont.)

Distortion:

- Program Output
Less than 0.5% at +8 dBm into 600 ohms.
- Monitor Output
Less than 0.5% at 1 Watt into 8 ohms.

Signal to Noise:

- Program Output
At least 65 dB below +8 dBm output with -50 dBm input.

Muting:

One muting relay provided to mute monitor output and cue speaker (internal or external). Normally open contacts provided for ON AIR light. Muting relay activated by A or B input of mixer 1.

Contacts:

1A at 125 VAC, ½A at 250 VAC, resistive loads.

Power Requirements:

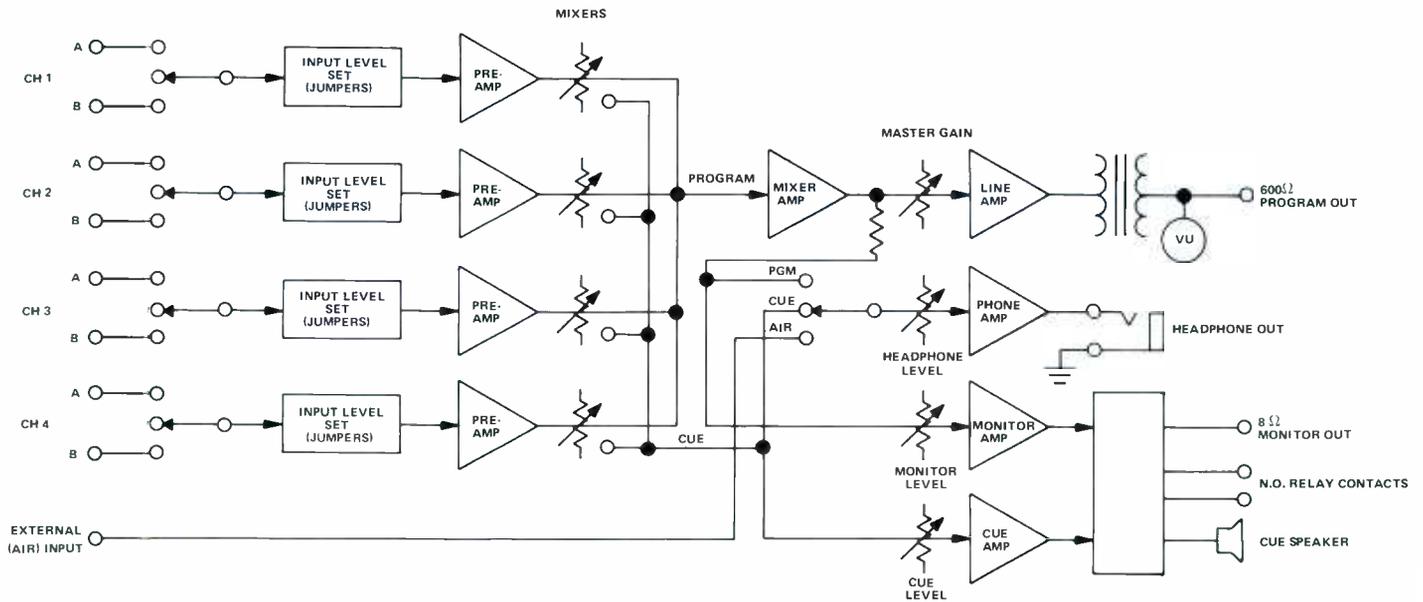
120 or 240 VAC (±10%), 50/60 Hz, 40 Watts

Size:

18" Wide x 13" Deep x 7.5" High.

Options:

1. Rack Adapter for 19" rack.
2. 230V, 50/60 Hz operation.



4BEM-50 BLOCK DIAGRAM



5BEM-100 5 Mixer Mono



8BEM-100 8 Mixer Mono

- 5 AND 8 MIXER MONAURAL DUAL CHANNEL CONSOLES
- HIGH OR LOW LEVEL INPUTS ON ALL MIXERS
- FET AUDIO SWITCHING, LONG LIFE SEALED POTS
- AUDITION AND PROGRAM CHANNEL OUTPUTS STANDARD

The monaural 5BEM-100 and 8BEM-100 dual channel consoles feature solid state, plug-in amplifiers that offer superb operating specifications. All mixing channels accept either microphone or line inputs as selected by internal switching. Separate identical amplifiers for the audition and program channels are supplied. Quiet switching of mixers

is ensured by the FET circuitry used; only a control voltage appears on the channel selector switch for each mixer. Monitor, headphone, and cue amplifiers are included. Two relays are included for controlling the monitor speaker outputs, the internal cue speaker, and activating "on-air" lights.

Specifications

Inputs:

Number

10 inputs into 5 mixers (5BEM) or 16 inputs into 8 mixers (8BEM), all mixers high or low level (switchable internally).

Low Level

150 ohms, balanced; -65 dBm nominal, -38 dBm maximum; maximum gain 92 dB.

High Level

Bridging (82K ohms each side to ground); -20 dBm nominal, +10 dBm maximum; maximum gain = 44 dB

Outputs:

Program

600 ohm, transformer balanced. +8 dBm nominal, +16 dBm maximum.

Audition

600 ohm, transformer balanced. +8 dBm nominal, +16 dBm maximum.

Monitor

5 Watts RMS to drive 4, 8, or 16 ohms.

Cue

0.5 Watt RMS; to drive 4, 8, or 16 ohms. Internal speaker and external connections provided.

Headphones

0.5 Watt RMS; 8 or 16 ohms as well as front panel jack and internal connections available.

Frequency Response:

Program & Audition

± 0.5 dB, 20 Hz to 20 KHz, reference 1 KHz at +8 dBm output into 600 ohms.

Monitor

± 2 dB, 50 Hz to 20 KHz, reference 1 KHz at 1 Watt output into 600 ohms.

Distortion:

Program & Audition

0.5% THD or less with +16 dBm output into 600 ohms.

Monitor

1% THD or less at rated load and output.

Specifications (Cont.)

Signal-to-Noise:

Program & Audition

Noise 65 dB (unweighted) below +8 dBm output, referenced to -50 dBm input.

Muting:

Two relays

Monitor

Monitor outputs through both relays.

Cue

Relay 1 mutes internal and external speakers.

Switching

Any relay can be activated through any mixer key in the audition and/or program position. Shipped wired with relay 1 activated by mixer 1.

External Contacts:

Normally open contacts for ON AIR lights, etc., provided on both relays. Rated 1A at 125 VAC or .5A at 250 VAC, resistive loads.

Power Requirements:

50W, 117 VAC, 50/60 Hz or 230 VAC, 50/60 Hz.

Size:

5BEM

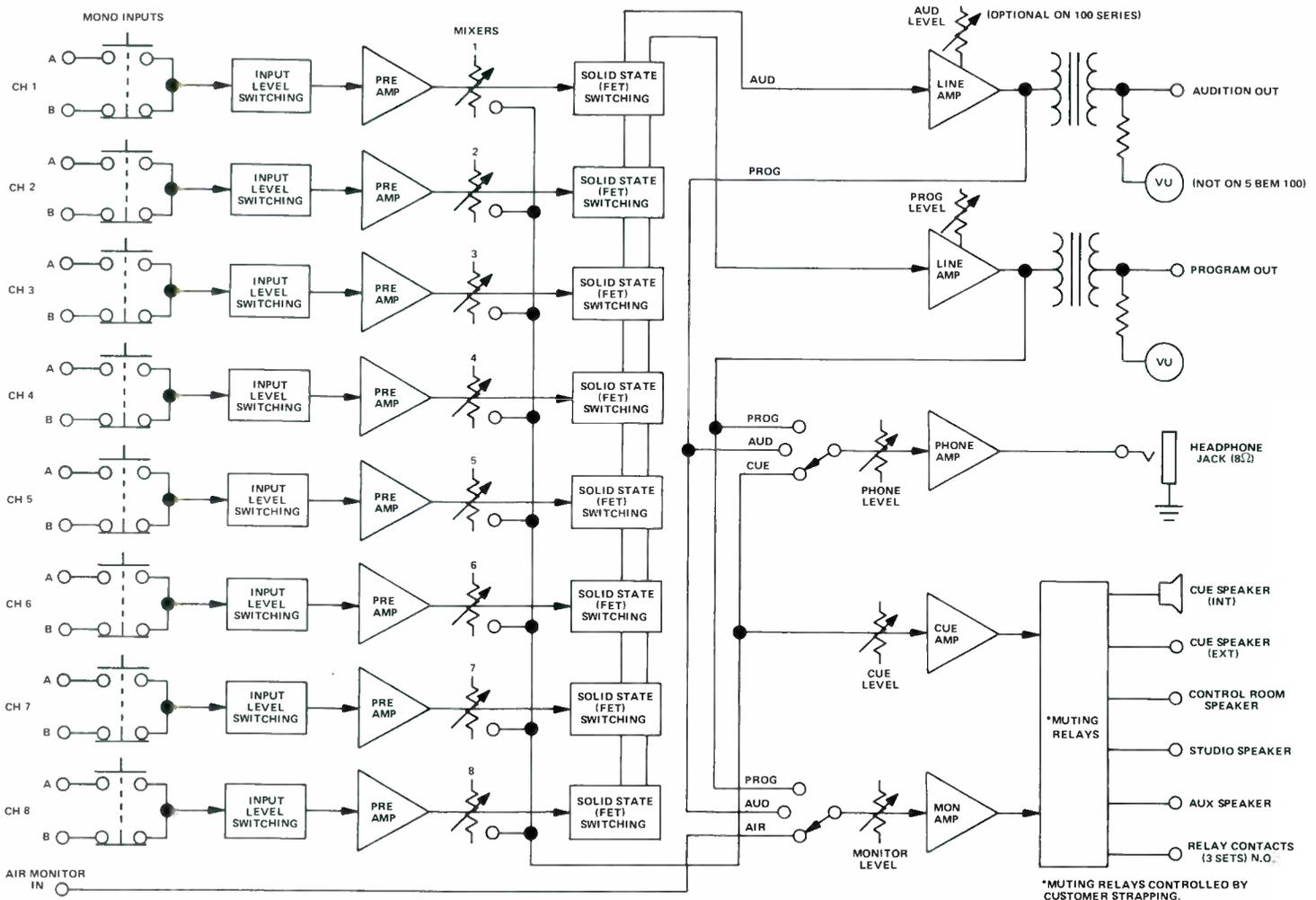
29.5" Wide x 13" Deep x 7.5" High

8BEM

32.5" Wide x 13" Deep x 7.5" High

Options:

230 VAC/50 Hz Operation. 4 mixer extender with remote line capabilities (5BEM only).



100 SERIES MONO CONSOLES BLOCK DIAGRAM



5BEM-200 5 Mixer Mono



8BEM-200 8 Mixer Mono

- 5 AND 8 MIXER MONAURAL, DUAL CHANNEL CONSOLES
- DAVEN TYPE STEP ATTENUATORS
- BUILT-IN 10 WATT MONITOR AMPLIFIER
- SEPARATE VU METERS FOR THE AUDITION AND PROGRAM CHANNELS

The monaural 5BEM-200 and 8BEM-200 are high quality full dual channel audio consoles. Push-button selected inputs are available to high or low level (switchable) plug-in preamps. Mixers are precision ladder attenuators. Selection of audition or program channels is by FET's for fast, quiet and distortion-free operation. Both output channels are continually monitored by individual 3½" illuminated VU meters. Both audition and program channels have transformer balanced outputs rated at over +18 dBm peak, and are on interchangeable plug-in PC cards.

These consoles have full built-in monitoring capabilities. The ten watt monitor amplifier delivers sharp, true sound to three individually muted out-

puts. Program, audition, and external (Off-Air) sources are front panel selectable. The separate headphone amplifier has both front panel and internal outputs. The cue amplifier (relay muted) drives a built-in or external speaker.

Three muting relays are provided for user convenience. Each can be wired to any mixer (channels 1, 2, and 3 are standard). Relay No. 1 mutes the cue speaker, and all relays control a monitor speaker output and a normally-open contact for warning lights, etc.

All internal connections are to screw-type barrier strips (except relay contacts and station ground) through two access channels in console bottom.

Specifications

Inputs:

Number

10 inputs into 5 mixers (5BEM) and 16 inputs into 8 mixers (8BEM). All mixers high or low level (internally switchable).

Low Level

150 ohms, balanced; maximum available gain = 92 dB; -65 dBm nominal; -38 dBm maximum.

High Level

Bridging (82 K ohms each side to ground); -20 dBm nominal; +10 dBm maximum; maximum available gain = 44 dB.

Outputs:

Program

600 ohm, transformer balanced; +8 dBm nominal; +18 dBm maximum.

Audition

600 ohm, transformer balanced; +8 dBm nominal; +18 dBm maximum.

Monitor

10 Watts RMS; will drive 4, 8, or 16 ohms.

Cue

0.5 Watt RMS; 4, 8, or 16 ohms; internal speaker and external connections provided.

Headphones

0.5 Watt RMS; 8 or 16 ohms, or HiZ. Front panel jack and internal connections available.

Specifications (Cont.)

Frequency Response:

Program & Audition
 ± 0.5 dB of 1 KHz, 20 Hz to 20 KHz at +8 dBm output into 600 ohms.

Monitor

± 2 dB of 1 KHz, 50 Hz to 20 KHz, at 1 Watt output into 8 ohms.

Distortion:

Program & Audition
 0.5% THD or less, +18 dBm output into 600 ohms.

Monitor

1% THD or less at rated load and output.

Signal-to-Noise

Program & Audition
 Noise (unweighted) 65 dB below +8 dBm output; referenced to -50 dBm input.

Muting:

Three relays

Monitor

Monitor outputs through each relay.

Cue

Relay 1 mutes internal and external speakers

Switching

Any relay can be activated through any mixer key, audition and/or program positions. Comes wired with relay one activated by channel 1, etc.

External Contacts (On-Air lights, etc.)

1 A. at 125 VAC; .5 A. at 250 VAC; resistive loads.

Power Requirements:

70 Watts max., 115V or 230V, 50/60 Hz.

Size:

5 BEM

29.5" wide x 14" deep x 9.5" high.

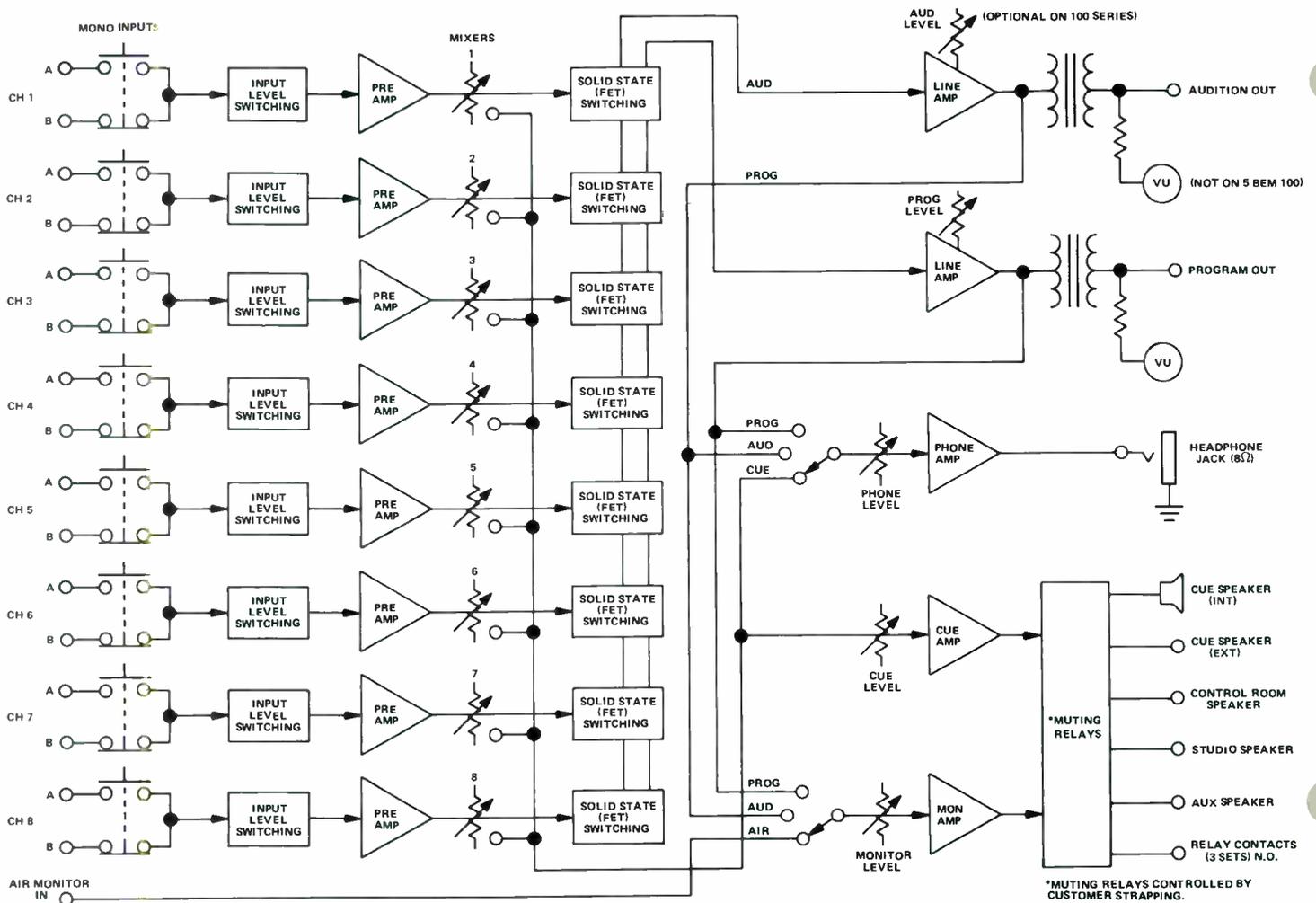
8 BEM

32.5" wide x 14" deep x 9.5" high

Options:

230V, 50/60 Hz operation.

4 mixer extender with remote line provisions.



200 SERIES MONO CONSOLES BLOCK DIAGRAM

Spotmaster®

100 SERIES STEREO AUDIO CONSOLES



5BES-100 5 Mixer Stereo



8BES-100 8 Mixer Stereo

- 5 AND 8 MIXER STEREO CONSOLES
- OPTIONAL DUAL CHANNEL OPERATION
- BUILT-IN MONITOR, CUE, AND HEADPHONE AMPLIFIERS
- ALL MIXERS ACCEPT MONO OR STEREO SOURCES

The stereo 5BES-100 and 8BES-100 feature stereo mixers with pushbutton selection of high or low level inputs. Each preamp can also provide in-phase stereo from a mono source (switchable) to eliminate jumpers, impedance mismatch and phase errors. Mixers are long-life, low noise sealed pots, and switching is accomplished with FET's, for fast, quiet, low maintenance operation. Two 3½" illuminated VU meters continually monitor the pro-

gram outputs. Program (and optional audition) plug-in mixer-line driver cards provide a transformer-balanced +16 dBm output.

Built-in amplifiers are provided for stereo monitoring capabilities by speaker or headphones of the program, optional audition, external ('Off-the-Air'), and cue circuits. The cue bus features a composite of both the left and right channels for positive preview of stereo sources.

Specifications

Inputs:

10 inputs into 5 mixers (5BES) and 16 inputs into 8 mixers (8BES); all mixers high or low level (internally switchable).

Low Level

150 ohms, balanced; maximum available gain = 92 dB; -65 dBm nominal; -38 dBm maximum.

High Level

Bridging (82 K ohms each side to ground); -20 dBm nominal; +10 dBm maximum; maximum available gain = 44 dB.

Outputs:

Program

600 ohm, transformer balanced; +8 dBm nominal; +16 dBm maximum.

Optional Audition

600 ohm transformer balanced; +8 dBm nominal; +18 dBm maximum.

Optional Mono

600 ohm transformer balanced; +8 dBm nominal; +18 dBm maximum; mixing ratio adjustable ± 6 dB, left and right program channels.

Monitor

2 Watts RMS per channel; will drive 4, 8, or 16 ohms.

Cue

0.5 Watt RMS; 4, 8, or 16 ohms; internal speaker and external connections provided.

Headphones

0.5 Watt RMS per channel; 8 or 16 ohms, or HiZ; front panel jack and internal connections available.

Frequency Response:

Program and Audition

± 0.5 dB of 1 KHz, 20 Hz to 20 KHz @ +8 dBm output into 600 ohms.

Monitor

± 2 dB of 1 KHz, 50 Hz to 20 KHz, @ 1 Watt output into 8 ohms.

Distortion:

Program and Audition

0.5% THD or less, +16 dBm output into 600 ohms.

Monitor

1% THD or less at rated load and output.

Specifications (Cont.)

Signal to Noise:

Program and Audition
 Noise (unweighted) 65 dB below +8 dBm output;
 referenced to -50 dBm input.

Muting:

One relay, supplied with provisions for second.
 Monitor Muting
 Monitor outputs through each relay.
 Cue Muting
 Relay 1 mutes internal and external speakers.
 Switching
 Any relay can be activated through any mixer key,
 audition and/or program positions; comes wired with

relay one activated by channel 1, etc.
 External Contacts (On-Air lights, etc.)
 1 A. at 125 VAC; .5 A. at 250 VAC; resistive loads.

Power Requirements:

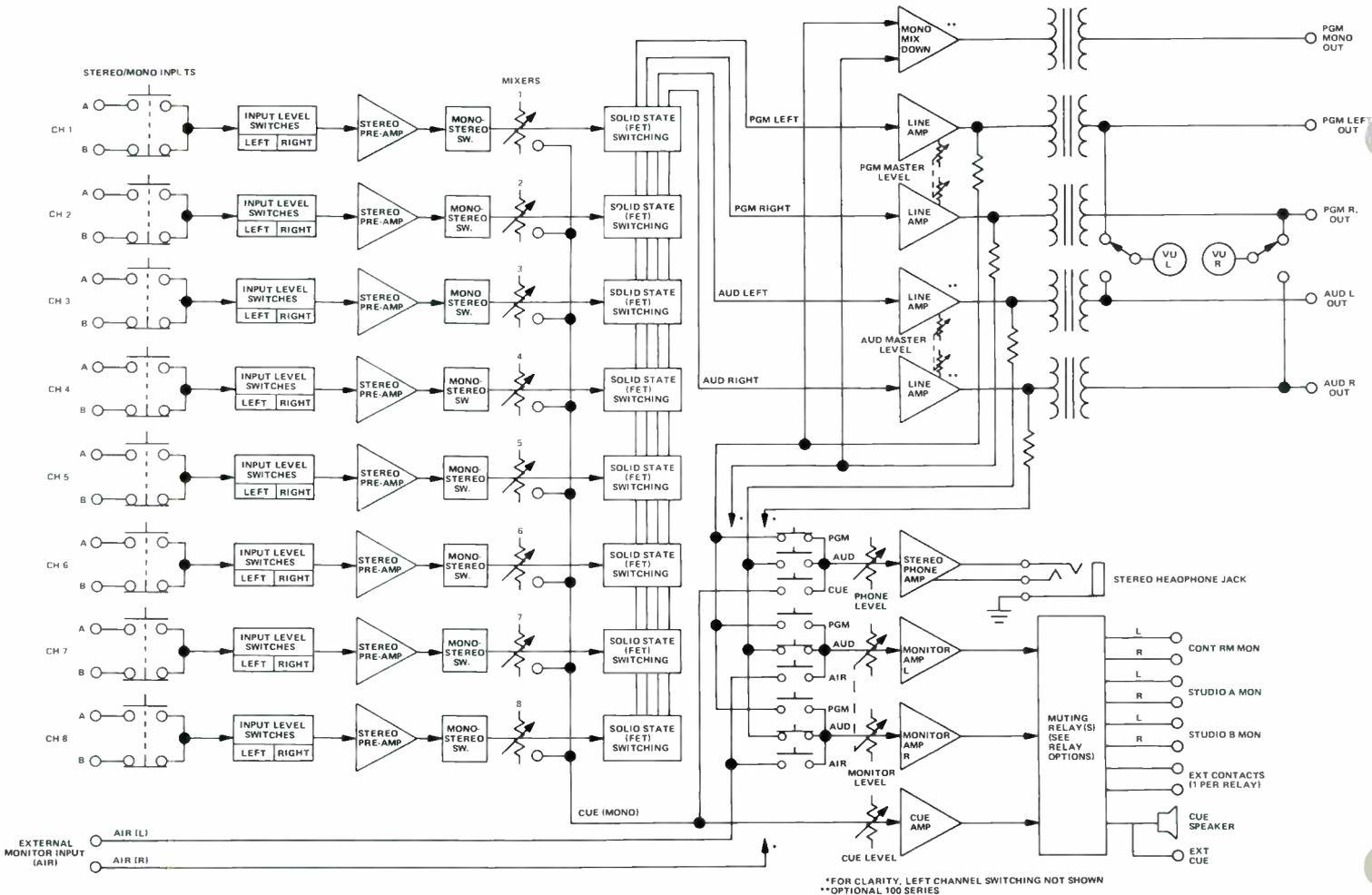
85 watts max., 115V or 230V, 50/60 Hz.

Size:

8BES
 32.5" wide x 13" deep x 7.5" high.
 5BES
 29.5" wide x 13" deep x 7.5" high.

Options:

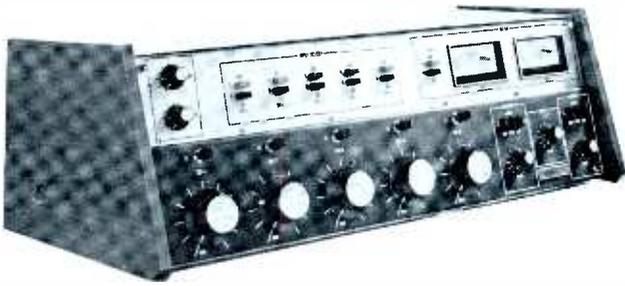
230 VAC/50/60 Hz operation.
 Line amplifier module for audition channel.
 Mono matrix module.
 Second muting relay.



100 SERIES STEREO CONSOLES BLOCK DIAGRAM

Spotmaster[®]

200 SERIES STEREO AUDIO CONSOLES



5 BES-200 5 Mixer Stereo



8 BES-200 8 Mixer Stereo

- 5 AND 8 MIXER STEREO DUAL CHANNEL CONSOLES
- DAVEN TYPE STEP ATTENUATORS
- MONO MATRIX OUTPUT STANDARD
- ACCEPTS MONO OR STEREO INPUTS

The stereo 5BES-200 and 8BES-200 consoles provide the best combination of features for the stereo broadcaster or producer. These consoles are both stereo and mono consoles, with identical program and audition channels. The pushbutton-selected inputs feed high or low level (switchable) plug-in preamps. A mono source can be fed to left and right channels by the flick of a switch (no jumpers, impedance changes, or phasing problems). Mixers are precision ladder attenuators. Selection of audition or program channels is by FET's for fast, quiet and distortion-free operation. Two 3½" illuminated VU meters can monitor either audition or program outputs. Four interchangeable mixer-output PC plug-ins provide transformer balanced, +18 dBm outputs for program and audition. A mono matrix card gives an identical mono output

from the program channels (left/right balance is adjustable for program, audition and mono outputs).

Full stereo monitoring capabilities include 10 watt power amplifiers (three separately muted outputs each channel) stereo headphone amplifier with front panel jack and internal connections, and a cue amplifier (mono sum) with built-in muted speaker.

Three muting relays are provided for user convenience. Each can be wired to any mixer (channels 1-3 standard). Relay No. 1 mutes the cue speaker, and all relays control stereo monitor outputs and a normally-open contact for warning lights, etc.

All internal connections are to screw-type barrier strips (except relay contacts and station ground) through two access channels in the console bottom.

Specifications

Inputs:

10 inputs into 5 mixers (5BES) and 16 inputs into 8 mixers (8BES); all mixers high or low level (internally switchable).

Low Level

150 ohms, balanced; maximum available gain = 93 dB; -65 dBm nominal; -38 dBm maximum.

High Level

Bridging (82 K ohms each side to ground); -20dBm nominal; +10 dBm maximum; maximum available gain = 44 dB.

Outputs:

Program

600 ohm, transformer balanced; +8 dBm nominal; +18 dBm maximum.

Audition

600 ohm, transformer balanced; +8 dBm nominal; +18 dBm maximum.

Mono

600 ohm transformer balanced; +8 dBm nominal; +18 dBm maximum; mixing ratio adjustable ± 6 dB, left and right program channels.

Monitor

10 Watts RMS per channel; will drive 4, 8 or 16 ohms.

Cue

0.5 Watt RMS; 4, 8, or 16 ohms; internal speaker and external connections provided.

Specifications (Cont.)

Headphone

0.5 Watt RMS per channel; 8 or 16 ohms, or HiZ; front panel jack and internal connections available.

Frequency Response:

Program & Audition

± 0.5 dB of 1 KHz, 20 H to 20 KHz @ +8 dBm output into 600 ohms.

Monitor

± 2 dB of 1 KHz, 50 Hz to 20 KHz, @ 1 Watt output into 8 ohms.

Distortion:

Program & Audition

0.5% THD or less, +18 dBm output into 600 ohms.

Monitor

1% THD or less at rated load and output.

Signal-to-Noise:

Program & Audition

Noise (unweighted) 65 dB below +8 dBm output referenced to -50 dBm input.

Muting:

Three relays

Monitor

Monitor outputs through each relay.

Cue

Relay 1 mutes internal and external speakers.

Switching

Any relay can be activated through any mixer key, audition and/or program positions; comes wired with relay one activated by channel 1, etc.

External Contacts (On-Air lights, etc.)

1 A. at 125 VAC; .5 A. at 250 VAC; resistive loads.

Power Requirements:

105 Watts max., 115V or 230V, 50/60 Hz.

Size:

5 BES

29.5" wide x 14" deep x 9.5" high.

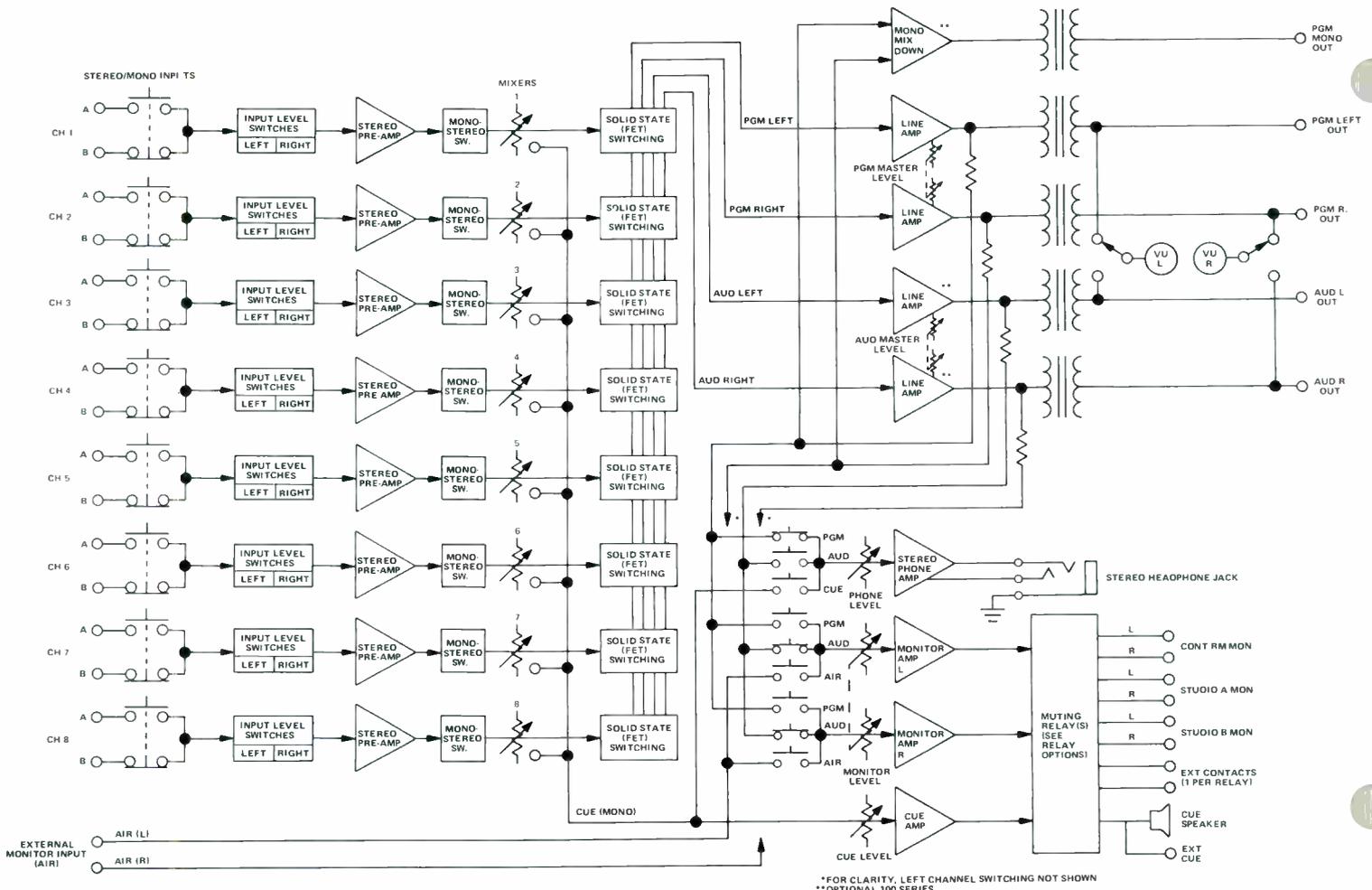
8 BES

32.5" wide x 14" deep x 9.5" high.

Options

230 VAC/50/60 Hz operation.

4 mixer extender with remote line provisions.



*FOR CLARITY, LEFT CHANNEL SWITCHING NOT SHOWN
**OPTIONAL 100 SERIES

200 SERIES STEREO CONSOLE BLOCK DIAGRAM



Models BEML-1006 Mono BESL-1006 Stereo

Spotmaster SLIDE-MOD modular consoles provide the ultimate in versatility and features. These new consoles, available in both mono and stereo models, have linear slide faders and completely modular construction with all active electronics on plug-in modules. Initially, the console can have six mixers, and it may be expanded to ten mixers by plugging in additional modules. All functions are activated by illuminated pushbutton switches, and the console may be used to control and activate other station functions such as cartridge machines. In addition, all SLIDE-MOD functions are completely operable by remote control.

The basic console frame assembly accepts up to ten input modules — either mike input or line input modules. All modules have momentary pushbutton

- COMPLETELY MODULAR CONSTRUCTION — ALL ACTIVE ELECTRONICS ARE UNPLUGGABLE
- ANY NUMBER OF MIXERS — START WITH SIX, EXPAND TO TEN
- ALL FUNCTIONS ARE COMPLETELY OPERABLE BY REMOTE CONTROL
- MOMENTARY PUSHBUTTON SOLID STATE SWITCHING

activated solid state switching of audio to program, audition, or cue amplifiers. Each module accepts three inputs with switching of any input to the conductive plastic linear slide mixer control. Both audition and program channels have transformer-balanced outputs exceeding +18 dBm peak.

The SLIDE-MOD consoles have full built-in monitoring capabilities. A ten watt monitor amplifier delivers sharp, true sound to three individually muted outputs. The cue amplifier (relay muted) drives an internal or external speaker.

Three muting relays are provided for user convenience. Each can be wired to any mixer (channels 1, 2, 3, standard). Relay No. 1 mutes the cue speaker, and all relays control a monitor speaker output and a normally open contact for warning lights, etc.

Specifications

Inputs:

3 inputs per mixer using high quality input transformers.

Outputs:

Program

600 ohm, transformer balanced, +8 dBm nominal, +18 dBm maximum.

Audition

600 ohm, transformer balanced, +8 dBm nominal, +18 dBm maximum.

Monitor

10 watts RMS, will drive 8 or 16 ohms.

Cue

0.5 watts RMS, 8 ohms, internal speaker.

Headphone

0.5 watt RMS, 8 or 16 ohms or Hiz, front panel jack.

Frequency Response:

Program & Audition

±0.5 dB (ref 1 KHz) 20 Hz to 20 KHz at +8 dBm into 600 ohms.

Monitor

±2 dB (ref 1 KHz) 30 Hz to 20 KHz at 1 watt into 8 ohms.

Distortion:

Program & Audition

0.5% THD or less at +18 dBm into 600 ohms.

Monitor

1% THD or less at rated load.

Signal-to-Noise

Program & Audition

Noise (unweighted) 72 dB below +8 dBm output (ref -50 dBm input).

Muting:

Three relays

Monitor

Monitor outputs through each relay.

Switching

Any relay can be activated through any mixer key, audition or program positions. Shipped with relay 1 activated by channel 1, etc.

External contacts

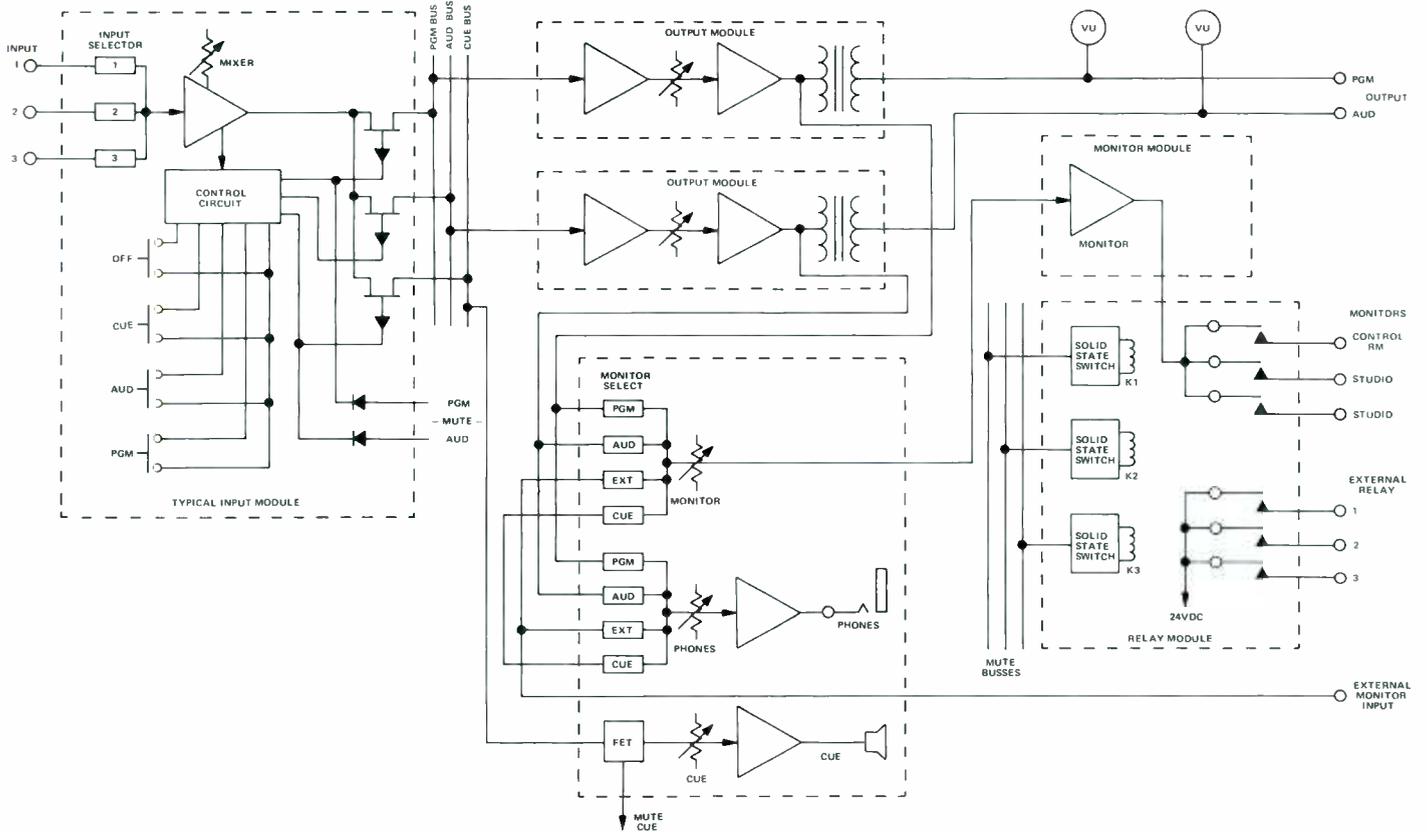
24 volts provided for external control relays.

Power Required:

115/230 VAC, 50/60 Hz, 60 watts.

Size:

37½" wide x 20" deep x 12" high.



SLIDE-MOD CONSOLE BLOCK DIAGRAM

Turntable Pre-Amplifiers Models BE TMS-100/200



Specifications

Output Level:

Switchable -10, 0 and +8 dBm.

Output Impedance:

Model BE TMS-100, nominal 600 ohm.

Model BE TMS-200, 600 ohm transformer (coupled)

Signal-to-Noise:

-60 dB @ 0 dBm output.

Frequency Response:

±2 dB, 30 Hz to 15 KHz (RIAA) NAB.

As a result of development work aimed at providing the broadcaster a completely versatile turntable pre-amplifier, SPOTMASTER engineering expertise is now presenting to the industry the Models BE TMS-100 and BE TMS-200 turntable pre-amplifiers.

One package will handle either mono or stereo. A unique feature in SPOTMASTER Pre-amplifiers is a phase reversal capability on one channel in order to allow mono playback from stereo only recordings.

Gain:

54 dB @ 1 KHz.

Distortion:

Less than 0.5% @ +8 dBm.

Channel Separation:

Better than 50 dB.

Input Level:

5 MV sensitivity for +8 dBm output.

Input Impedance:

47 K

Professional Turntables



CUE-MASTER - 3 SPEED

- No slip starting
- Bronze platter shaft bearing
- Motor on-off switch light
- Rugged construction, only 3 rotating parts.
- Simple capstan to idler drive
- Available with hys-sync or 4-pole motor

Specifications

Dimensions: 15½" x 15½"
 Weight: 16 lbs.
 Wow & Flutter: .3 of 1%.
 Motor: Hysteresis Sync or 4-pole
 Rumble: 36 dB below NAB level at all speeds.



(Tone Arm
Optional Extra).

STUDIO-PRO B - 2 SPEED

- Precision engineered for quiet, dependable operation
- Solid cast aluminum chassis and turntable
- Illuminated speed indicators.
- Tightest cue potential in the industry
- "Direct Drive" . . . no belts
- Detachable tone arm mounting plate

Specifications

Dimensions: 15½" x 15½"
 Weight: 20 lbs.
 Wow & Flutter: Less than .2 of 1%
 Motor: Hysteresis Sync
 Rumble: 38 dB below NAB level @ 33 and 45 RPM
 Bearings: Bronze Oilite throughout
 Power Requirements: 110 V ac, 60 Hz (50 Hz available)

Micro-Trak Tone Arms

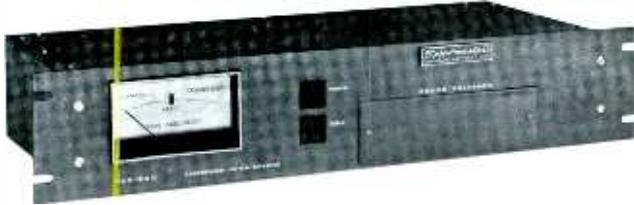
Micro-Trak tone arms feature low resonance and very small tracking errors. Available in 12 and 16 inch models.

No. 303 12"

No. 306 16"



Sound Britener CLE-500 Compressor/Limiter/Expander



The Spotmaster CLE-500 Sound Britener is a simple to operate, practical and electronically sophisticated answer to a complex, evasive problem – that of smoothing out the audio in widely ranging program formats. Unique new circuit applications have been combined with existing technologies to make, in one small package, an electronic marvel that maintains a bright, crisp and consistent audio output.

The Sound Britener combines compressor, limiter and expander functions to provide optimum level for maximum modulation power and coverage without danger of over modulation. Signal processing is smooth and quiet without distortion, pumping, or sucking of background noise. As a compressor/limiter/expander, the Sound Britener includes all characteristics of traditional gated automatic gain control amplifiers and fast acting peak limiters.

Automatic and self-controlling functions within the CLE-500 eliminate the need for several companion units required in some audio enhancement systems. The usual maze of controls has been reduced to just three controls for the Sound Britener:

Input level control that accepts normal program levels over a 50 dB range.

Output level control to match any 600 ohm transmitter or line.

Unique peak-to-average “tightness” control.

- PROVIDES AUTOMATICALLY CONTROLLED CLEAN, CRISP AUDIO WITHOUT DANGER OF OVER MODULATION
- SINGLE UNIT CONTAINS ALL FUNCTIONS NO NEED FOR ADDITIONAL AUDIO PROCESSORS
- SIMPLIFIED OPERATION ONLY THREE CONTROLS

All controls are recessed behind a safety cover on the front panel. A large 3” meter indicates expansion and compression, while indicators provide for low signal level and power.

Compression, timing, and expansion limits are all determined automatically, while a switch provides for test and proofs of performance. In the “test” mode, the unit acts as a fixed gain amplifier.

The SPOTMASTER SOUND BRITENER operates on peak program content and average program level separately. An average level section raises and lowers overall gain of the unit to maintain average output at the required level. In the event input signal falls more than 20 dB below normal program level, the SOUND BRITENER will expand gain only to the previous average level. After a pre-determined time, the gain returns to normal program level. This pre-determined time can be changed to suit changing station formats.

The amount of expansion is a function of the peak-to-average control setting. The peak control section is a dual action limiter. Fast gain reduction with an attack time of approximately 0.1 millisecond will hold all peaks under about 8 kHz, with absolute minimum distortion to lower frequencies, followed by a clipper to cut off higher frequency components until gain reduction occurs. Since all distortion products of these frequencies are normally inaudible, sound remains crisp and bright. This combination provides absolute overmodulation protection.

Specifications

Input:

600 ohms, transformer balance, -40 to +10 dBm.

Output:

600 ohms, transformer balance, +12 dBm.

Frequency Response:

+0.5 dB, 20 Hz to 20 kHz.

Distortion:

Less than 1% total harmonic before clipping.

Noise:

At least 70 dB below normal output with -20 dBm input.

Expansion:

20 dB.

Compression:

15 dB before clipping.

BEA-400 Rack Mount Modular Amplifiers



Spotmaster has developed a 3-1/2" rack mount Modular Amplifier package with provisions for four plug-in modules. This Modular Amplifier may be used for mono, stereo, quad-channel, mono amplifiers, multiple studio monitors, or combinations in both local and remote applications.

The basic unit has an extra-rugged welded steel construction containing a heavy duty power supply.

MA-10 Monitor Amplifier

A low-distortion 10 watt Monitor Amplifier designed for the most critical studio distribution system.



Specifications

- Input Impedance:**
600 ohms balanced/4.2 K bridging.
- Distortion:**
Less than 1% THD
- Response:**
±1 dB from 30 to 20,000 cycles.
- Adjustments:**
Gain, Input pad (0 - 15 - 30 dB).
- Output:**
10 watts RMS into 8 ohms.
- Gain:**
-40 dBm across 600 ohms produces 4 watts output.
- Muting:**
Plug-in relay optional (relay power internally supplied).
- Power:**
120V/60 Hz, 16 watts.
- Mounting:**
3½" x 19" rack panel.

The individual modules may be line amplifiers, ten-watt power amplifiers, or pre-amplifiers in any mixed combination.

Modules are inserted into the Modular Amplifier unit from the front. All controls are front mounted. Both modules and controls are tamper-proof, being protected by an attractive cover panel. Inputs, outputs, and remote controls are made through barrier strips on the rear panel.

The Spotmaster Modular Amplifier series provides the broadcaster a rugged, heavy-duty amplifier which is extremely versatile and suitable for all modes of broadcasting – mono, stereo, quad. The custom designed, reliable plug-in modules provide for the ultimate in versatility, since any combination of modules may be used for the particular application.

PLA-20 Program/Line Amplifier

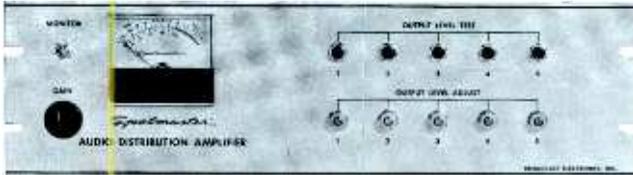
This wideband amplifier is designed for service as a program or line amplifier. The unit is designed for rack mounting and is provided with input level pad, output level control and VU meter switch.



Specifications

- Input Impedance:**
600 ohms balanced/4.2 K bridging.
- Input Level:**
-40 dBm to +10 dBm.
- Input Pad:**
0 - 15 - 30 dB.
- Gain:**
60 dB @ 600 ohms.
- Output Impedance:**
600 ohms balanced or unbalanced, 75 ohms unbalanced.
- Frequency Response:**
±0.5 dB 30 to 15,000 cycles.
- Distortion:**
0.5% or less.
- Maximum Output:**
+20 dBm RMS.
- Controls:**
1 input pad, output level, VU meter switch (+20, +10 or + VU).
- Power:**
120V/240V, 50/60 Hz, 5 watts.

AD1B Audio Distribution Amplifier



The SPOTMASTER Audio Distribution Amplifier is specifically and meticulously designed for the purpose of distributing audio signals to multiple points within a studio system or to telephone lines. Therefore, this unit is readily adaptable to AM, FM, and TV broadcast stations plus recording and audio studios.

Visual (VU meter) and aural (headphone jack) monitoring of the input signal at the output of the line amplifier is also provided, as well as separate monitoring and level controls for each output.

The five highly isolated output channels of the AD1B are expandable up to 25 output channels by the addition of AD1B-X Extenders, which also contain the same aural monitoring facilities as the AD1B.

Both units are available with either optional output transformers or standard unbalanced emitter follower output, with an input transformer common to both. Input circuitry may be operated either, bridging or matching and balanced or unbalanced.

Specifications

Input Impedance:	Matching: 600Ω, Bridging, 10KΩ AD1B-X: 10KΩ, unbalanced
Output Load Impedance:	600Ω (Optional 150/600Ω)
Input Level:	Max.: +30 dBm, AD1B-X: +5 dBm Min.: Matching -26 dBm, Bridging -10 dBm
Output Level: (Per Channel)	+4 dBm (+14 dBm peak)
Gain:	Matching: 30 dB, Bridging: 14 dB. AD1B-X: Unity.
Frequency Response:	±1 dB @ 30 - 15 kHz, ±2 dB @ 20 - 20 kHz.
Distortion:	Less than 1%.
Noise:	65 dB or better, below rated output.
Channel Separation:	60 dB.
Ambient Temperature:	(Max.) 55°C.
Power:	115 V ac, 50/60 Hz, 50 watts, AD1B-X: 40 watts.
Dimensions:	19" W x 5¼" H x 7-1/8" L.
Weight:	9½ lbs., AD1B-X: 8 lbs.
Finish:	Clear anodized brushed aluminum, with black lettering.
Controls:	1 gain, 5 output level, 5 meter monitor (momentary), AD1B-X; 5 output level; 5 momentary meter switch.
Connections:	Rear panel barrier strips.

Model CLA-20-40 Compressor-Limiter Amplifier



- SWITCHABLE SYMMETRICAL OR ASSYMMETRICAL PEAK LIMITING
- SWITCHABLE PRE-EMPHASIZED OR FLAT RESPONSE - AM/FM
- 40 dB DYNAMIC RANGE
- SOLID STATE, PLUG-IN MODULAR CONSTRUCTION

The CLA-20-40 has applications in AM or FM installations. This Compressor-Limiter Amplifier combines both compression and limiting functions. Switchable control systems for Symmetrical (FM) or Asymmetrical (AM) Peak Limiting; pre-emphasized or flat audio response; and Compress/Limit, Compress only or Compress/Limit off provide complete equipment flexibility. Strap (2) CLA-20-40 for stereo applications.

Specifications

Input and Output Impedance:	600 ohms balanced or unbalanced.
Input Level:	-20 dBm to +15 dBm.
Maximum Output Level:	+20 dBm RMS.
Frequency Response:	50 Hz to 15 kHz flat within 0.5 dB in AM or FM mode.
Maximum Gain:	40 dB.
Noise Level:	-66 dB ref. +10 dBm output.
Compression Ratio:	Less than 1% THD at all compression levels.
Automatic Gain Control Range:	Better than 10:1.
Metering:	Gain reduction, output level +4 VU, +10 VU.
AM-FM Operation:	Both. Standard 75 microsecond pre-emphasis/de-emphasis used in FM operation.
Physical Dimensions:	3½" x 19" rack panel.
Power Requirements:	120/240 volts, 50/60 Hz, 10 watts.
Weight:	6 lbs.

Spotmaster/Revox Model A77 Mark III B

Broadcast version of the renowned REVOX A77 stereo/mono tape recorder.



REVOX has been an innovator in tape recorder design for almost twenty years. Among the first to pioneer a three motor tape deck and:

- An electronically regulated (servo) capstan motor
- Capstan system of one revolving part construction. No belts or idler wheels are employed. Speed change effected electronically
- Electromagnetic servo braking system
- Optical end-of-tape switch
- Electromagnetic pressure roller
- 50 or 60 Hz operation without any adjustment

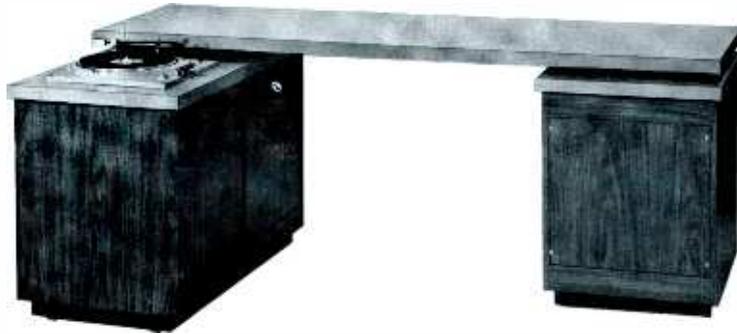
Other features:

- Accurately calibrated VU meters with special lights to indicate record mode
- Dual inputs for front or rear microphone connection plus switchable choice of matching impedance either high or low
- Professional three-head design for on/off tape monitoring as well as provision for mixing, multi-track and echo effects
- Reel motor defeat switch for manual reel handling during editing
- 10½" reels for longer uninterrupted recording time
- Exceptionally smooth fast forward and rewind speeds thanks to professional three motor design and servo braking system
- Headphone monitoring available on front panel with stereo balance and volume control
- Selectable tension for large or small spool operation.

Specifications

Tape Speed:	3¼ and 7½ IPS, max. deviation from nominal ±0.2%.	Crosstalk at 1 KHz:	Mono better than 60 dB, stereo better than 45 dB.
Wow and Flutter:	Total rms, weighted 0.04% at 7½ IPS and 0.05% at 3¼ IPS. Weighted peak to peak flutter as per DIN 0.08% at 7½ IPS and 0.1% at 3¼ IPS.	Inputs Per Channel:	Microphone, low impedance 50 to 600 ohms 0.15 mv, high impedance up to 100 k ohms 2.5 mv - Radio 2.5 mv - Auxiliary 35 mv. All inputs have an overload margin of 40 dB (1:100).
Tape Slip:	Not exceeding 0.2%.	Outputs Per Channel:	Amplifier max. 2.5 V, internal impedance 600 ohms - Radio max. 1.2 V, internal impedance 2.5 k ohms - Headphones, volume adjustable, load impedance 200 ohms or more.
Tape Spool Diameter:	Up to 10½ inches (minimum hub diameter 2-3/8 inches)	Power Requirements:	Voltage selector for 110 to 250 V, 50 to 60 Hz operation without need for consumption 70 . . . 100 watts.
Operating Position:	Horizontal or vertical.	Dimensions:	19" rack panel, 14" high, 7½ deep.
Frequency Response:	Via Tape at 7½ IPS: 30 Hz to 20 KHz + 2/-3 dB 50 Hz to 15 KHz ±1.5 dB Via Tape at 3¼ IPS: 30 Hz to 16 KHz + 2/-3 dB 50 Hz to 10 KHz ±1.5 dB	Weight:	34 lbs.
Equalization:	Record NAB, playback NAB and IEC (switchable)	Optional:	Mark III in carrying case, 7½ - 15 IPS full track, Dolby "B", sel-sync, variable pitch, plug-in power amps, remote controls.
Distortion:	Measured via tape at 1 KHz peak level and at 0 VU respectively, 7½ IPS less than 3% or 1.0% respectively.	WARRANTY:	Lifetime on all parts except for heads, capstan and pressure roller which have a 1 year warranty.
Signal to Noise Ratio:	Weighted readings via tape 7½ IPS better than 61 dB (4-track 57 dB). 3¼ IPS better than 58 dB (4-track 54 dB)		

Desk Top Unit



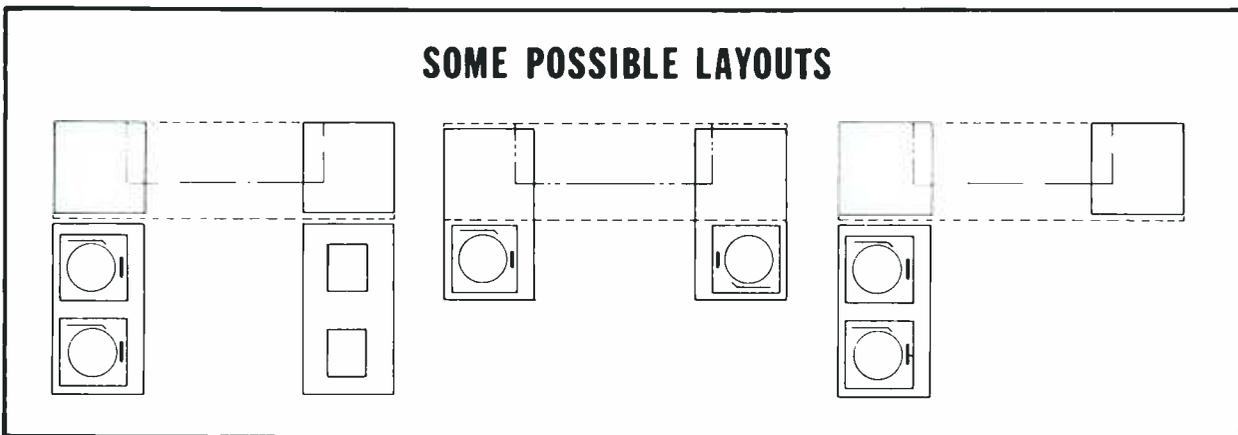
- MODULAR DESIGN FOR COMPLETE FLEXIBILITY.
- SINGLE AND DUAL TURNTABLE CABINETS.
- DESK TOP SECTION MOUNTS ON CABINETS OR METAL LEGS.

The SPOTMASTER Modular Control Room Furniture

A new look is offered in the SPOTMASTER 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.

SOME POSSIBLE LAYOUTS



Dual Turntable Cabinet



Single Turntable Cabinet



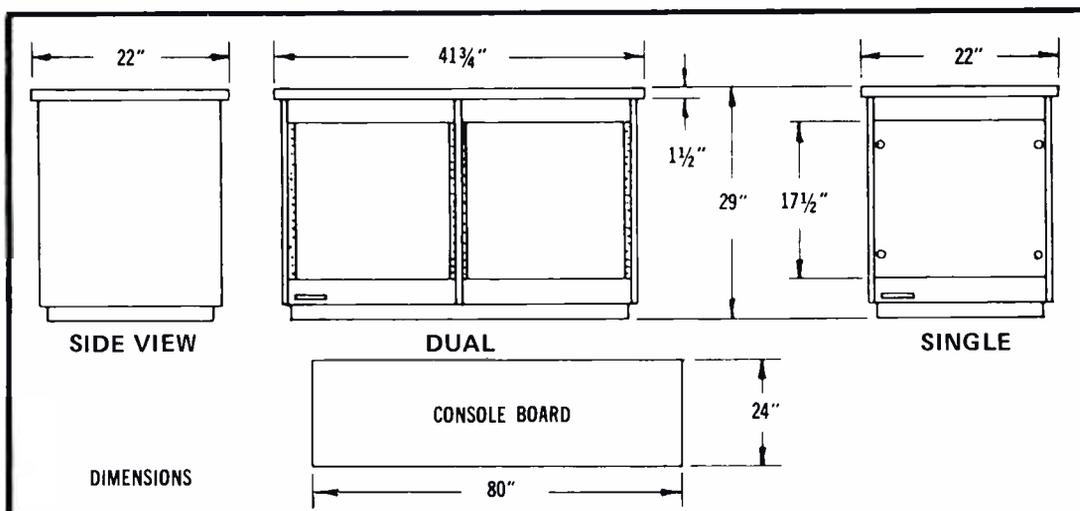
Specifications

DUAL TURNTABLE CABINET

- Size:** 41-3/4" wide X 22" depth x 29" height.
- 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 3/4" thick (front and rear closure panels 5/8" thick) with formica press bonded using urea type heat activated adhesive.
- Panel Space:** Two 17-1/2" high panel openings front and rear to accommodate standard 19 inch E.I.A. style equipment panels on steel mounting rails.
- Weight:** 117 lbs. Includes complete cabinet with wood grained closure panels for front and rear openings.

SINGLE TURNTABLE CABINET

- Size:** 22" wide x 22" depth x 29" height.
- 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 3/4" thick (front and rear closure panels 5/8" 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 x 24" depth x 1-1/2" thick.
- Finish:** French Blue formica.
- Mounting:** Mounts on top of single or double bay cabinets with brackets provided or on separate bright metal legs.
- Height Mounted:** 29 inches.



Quartzmatic Studio Clock

Now available from Spotmaster. . .
Your studio and control room
Quartzmatic Clock



- LARGE 12" DIAMETER FACE (GLASS LENS PROTECTED) WITH 1-1/2" NUMERALS, RED SWEEP SECOND HAND
- PRECISION ACCURACY ±1 MINUTE IN ONE YEAR
- 1 YEAR FACTORY WARRANTY
- POWERED BY 2 "C" BATTERIES FOR 1 YEAR BATTERY LIFE
- WHITE OR TAN FACE WITH CHARCOAL NUMERALS IN WOODHUE CASE 2-7/8" DEEP x 14-1/8" DIAMETER

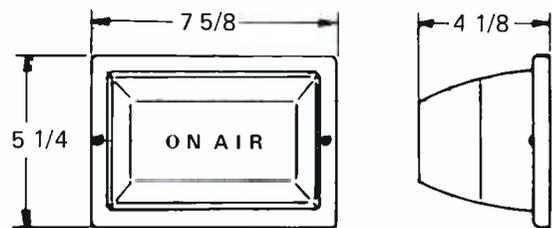
Combines quartz crystal technology with sophisticated electronic circuitry to create one of the world's most accurate clocks.

Warning Light



- OPTIONAL "ON-AIR" OR "AUDITION" SILK-SCREENING
- 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.



Broadcast and Recording Microphones



649B



649B: Smallest dynamic lavalier only 2-1/4" long, 3/4" dia. Response is carefully tailored to compensate for lavalier acoustic conditions so resulting signal perfectly matches signal from other microphones. Response: 70 to 10,000 Hz. Impedance: 150 ohms. Output level: -61 dB.

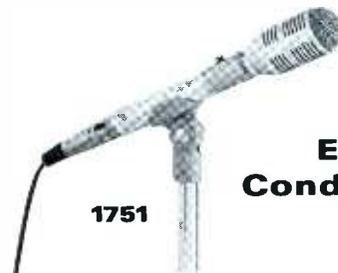
ELECTRET CONDENSER MICROPHONES

Latest engineering breakthrough. Genuine condenser mikes with superior performance specifications at surprisingly low cost. Generating element permanently charged eliminating costly and troublesome power supply electronics. Ruggedness and long life previously available only in dynamic microphones. Excellent frequency response, transient response, and sensitivity make these units suitable for professional recording and high quality sound reinforcement.

1711



1751



NEW
Electret
Condensers

1751:

Cardioid pickup pattern reduces sensitivity from sides and rear. Single-D type emphasizes bass used close up. Rugged aluminum case with permanent anodized beige finish. On/off switch. Low handling or shock noise. Built-in breath filter. Has small internal impedance matching circuit with AA-size battery (not furnished). Response: 60 to 15,000 Hz. Lo-Z balanced to ground. (Because of high output may be used with low, medium, or high impedance inputs.) Output: -43 dB. Separate cable with professional connector and mounting clamp furnished.

1711:

Omnidirectional Specifications as per 1751 Output: -50 dB.

TELCO /80 and TELCO/90

Automatic Telephone Answering Systems

TELCO/80 for use with 400, 500 and 605 series cartridge machines

TELCO/90 for use with 303, 305, 370 and 1070 series cartridge machines



- AUTOMATIC REPRODUCTION OF PRERECORDED MESSAGE IN RESPONSE TO INCOMING CALL
- AUTOMATICALLY RECORDS INCOMING MESSAGES
- SWITCHABLE TO PLAY ONLY, RECORD ONLY, PLAY THAN RECORD
- AUTOMATICALLY ADDS TONE WHEN RECORDING
- AUTOMATIC LINE DISCONNECT AT END OF CYCLE
- BUILT-IN CALL COUNTER
- POWERED FROM TAPE CARTRIDGE MACHINE

All Spotmaster Tape Cartridge machines can be adapted for Automatic telephone response by using the Telco/80 or Telco/90, or the interface between the recorder/reproducer and the coupler furnished by the Bell System. This series of Telco units combine the features of our Telco III and IV series while incorporating the latest design concepts. They enable the user to feed a pre-recorded mes-

sage, news bulletin or press release to the public or news media upon command of an incoming telephone call on a pre-designated telephone line. They also enable a calling party to record his message. All units are furnished complete with interface cabling to telephone coupler and to cartridge equipment.

Specifications

Manual/Auto Sel.:

Selects operational mode. In auto position the unit responds automatically to telephone calls by connecting machine to the telephone line and initiating tape play-back mode.

Manual Start:

Used to start tape machine when in Manual mode.

Busy Indicator:

Indicates when unit has been activated and is connected to telephone line.

Ready Light:

Standby status indicator.

Record/Play Sel.:

Selects mode in which system will respond to phone call.

Record Indicator:

Record status indicator.

Dimensions:

2½" high x 5½" wide x 8" deep.

Mounting:

Table-top; adapter brackets included for under table or wall mounting.

Case:

Aluminum with blue suede cover.

Connecting Cables:

Provided with 15 ft. cabling and mating connector for W.E. coupler KS19522-L1; 15 ft. cabling & connector to Spotmaster cartridge.

Power:

Required voltage supplied by Spotmaster Cartridge Machine.

TELCO III and IV Series Answering Systems

- PROVIDES AUTOMATIC RESPONSE TO INCOMING CALLS
- INTERFACES BETWEEN SPOTMASTER CARTRIDGE MACHINE AND BELL RECORDER COUPLER

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 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. Four models are offered as follows:

- | | |
|---|---|
| Telco IIIB Incoming calls only | } Interface with 500 series, 605 series & 3/70. |
| Telco IIIC Incoming and out-going calls | |
| Telco IVB Incoming calls only | } Interface with 10/70 series. |
| Telco IVC Incoming and out-going calls | |



TC-4 Counter

- PROVIDES AUTOMATIC CALL REGISTER

The TC-4 registers the number of incoming calls to the Spotmaster unit. Counter installs under tape deck lid.



Mini-Automation Systems

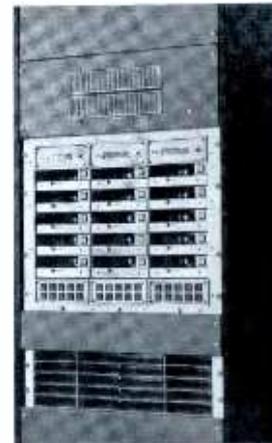
THE SENSIBLE APPROACH TO AUTOMATION

Automation is today's big word in broadcasting. It usually means high cost and many problems. But at SPOTMASTER we have given automation a new meaning - simplicity.

Why? Because we have taken the sensible approach to automation. We don't move the cartridges around in complex machines. In fact, hardly anything moves. The cartridges remain fixed, and the sequencing is all electronic and pre-programmable. We do it with our multiple deck units - from 3 to 15 decks in one package. It's simple, it's reliable and it's low in cost.

The "automation" of the cartridge equipment involves using the cue track capabilities and the remote control and indication facilities to string a number of decks together. The simplest system has each deck starting the next deck through its 150 Hz (QI) sensor. The playing order is fixed, and can either play to the end and stop, or loop back and have the last deck start the first.

The addition of one switch per deck allows any deck to be deleted from the sequence. This is the basic principle of the ESD-15 Sequencer. The ESD-15 operates three 305D Mini-Series units, with a total of 15 decks. The ESD-15 adds to the bypass switching two other features. One, the empty deck detector, closes external alarm contacts if an unloaded deck is called by the sequencer. The second allows the sequencer to be used in an open or closed loop mode.



Audio control can also be part of the automation function. The Mini-Series has the built-in capability of providing a single output that switches to the latest deck started. An outboard switcher, the SW-5 provides a similar function for the FIVE SPOT and TEN SPOT (605C and 610C). The TEN/70 single deck machines have automatic output muting with the QI option. The same function can be provided by the SPOTMASTER console line. The slide-fader consoles have a remote control capability that allows each channel to be switched to Program, Audition, or Off. This can include turning on the announcer's microphone and muting the studio speakers when a tag is required.

Audio Delay Systems for Talk Shows



The need for a delay device in broadcasting, especially for talk shows, has been obvious for many years. Spotmaster produces many delay devices from single deck machines to more complex systems such as the one shown here. These systems are practical enough to be operated by a single person with ease and complete safety.

A typical delay application is in a talk show situation. There are two time frames involved: studio (real) time and air (delayed) time. The operator never has to hear or consider the delayed time. When he hears an objectionable comment in studio time, he simply pushes a mute control which operates in delayed time. This action removes the objectionable program content before it has started on the air - and substitute program material may be automatically inserted.

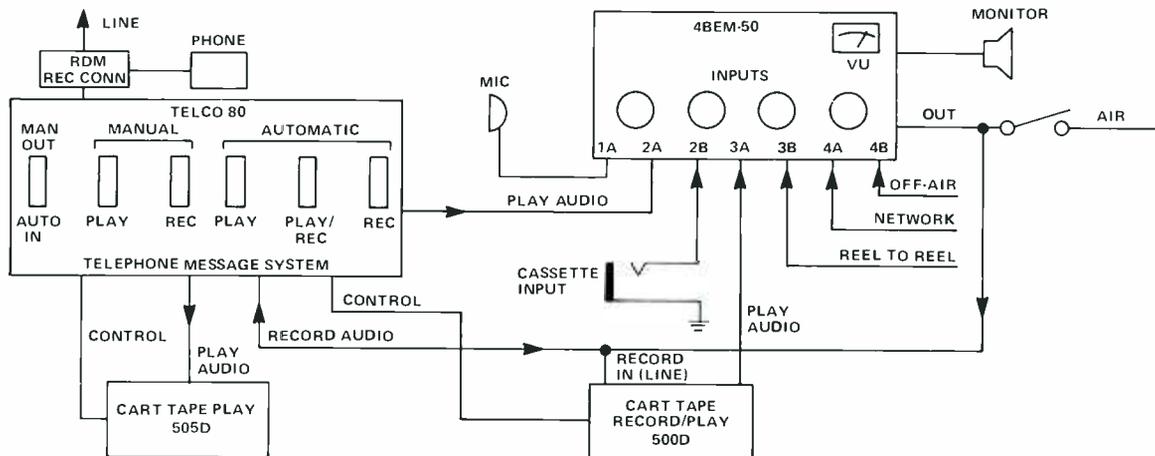
SEE DIAGRAM NEXT PAGE →

SPOTMASTER News Center

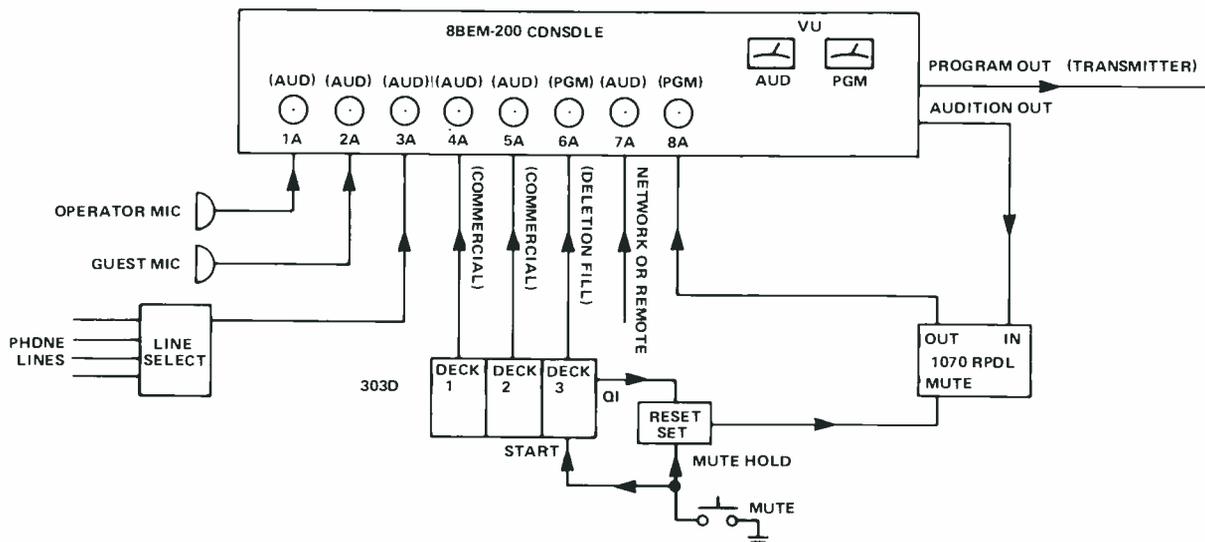
- UNATTENDED TELEPHONE ANSWERING AND PLACING OF ANNOUNCEMENTS
- MANUAL TELEPHONE OPERATION
- PRODUCTION AND EDITING INCLUDING DUBBING FROM THE PLAY TO RECORD CARTRIDGE WITHOUT INTERFERING WITH NORMAL PHONE USE
- ON THE AIR BROADCAST OF LIVE OR PRE-RECORDED AUDIO

BROADCAST ELECTRONICS has assembled the NEWS CENTER as an example of an economical, versatile, and efficient news gathering, producing, and airing system. The NEWS CENTER emphasizes speed, accuracy, and convenience. With Telco 80, the telephone becomes a prime news source. The tape cartridge is unmatched as a recording medium for ease of handling, operation, and information retrieval. The 4BEM50 console provides the ideal means for collecting, controlling, and monitoring diverse audio sources. The entire grouping can be arranged and expanded to meet the needs of the most sophisticated news operation.

These are some of the dozens of news functions handled by the Spotmaster NEWS CENTER.



TYPICAL SPOTMASTER NEWS CENTER



TYPICAL USE OF DELAY IN A TALK SHOW

Spotmaster®

AUDIO CONSOLES

MODEL	4BEM-50	5BEM-100	5BES-100	5BEM-200	5BES-200	8BEM-100	8BES-100	8BEM-200	8BES-200	BEML-1006-10	RESL-1006-10	EXT-100-200	
MONO/STEREO	MONO	MONO	STEREO	MONO	STEREO	MONO	STEREO	MONO	STEREO	MONO	STEREO	MONO	
NUMBER MIXERS	4 MIXERS	5 MIXERS				8 MIXERS				6-10 MIXERS		4 MIXER ADD-ON	
FADERS	SEALED	SEALED	STEREO SEALED	STEP LADDER	STEREO STEP LADDER	SEALED	STEREO SEALED	STEP LADDER	STEREO STEP LADDER	LINEAR CONDUCTIVE PLASTIC	STEREO LINEAR CONDUCTIVE PLASTIC	ROTARY SEALED (100 SERIES) OR STEP LADDER (200 SERIES)	
NUMBER INPUTS	8 INPUTS	10 INPUTS				16 INPUTS				18-42 INPUTS		12 INPUTS WITH 10 REMOTE LINES	
TYPE INPUTS	MIC/LINE STRAPPABLE	MICROPHONE OR LINE; SWITCH SELECTABLE									MIC OR LINE CARDS AVAILABLE		LINE
	MONO	MONO	MONO OR STEREO	MONO	MONO OR STEREO	MONO	MONO OR STEREO	MONO	MONO OR STEREO	MONO	MONO OR STEREO	MONO	
LINE INPUTS	10K BAL -20 TO 0 dBm	BALANCED BRIDGING (82K), -20 dBm NOMINAL, +10 dBm MAXIMUM, 44 dB MAXIMUM GAIN										0 dBm 8 dBm MAX BALANCED XFMR COUPLED	
MIC INPUT	150 OHM -65 TO -42 dBm	150 OHMS, BALANCED, -65 dBm NOMINAL, -38 dBm MAXIMUM; 92 dB MAXIMUM GAIN										OPTIONAL	
OUTPUTS	PGM 600 OHM XFMR +8 dBm (15 max)	PGM-AUD	PGM (AUD, MONO)	PGM-AUD	PGM AUD, MONO	PGM-AUD	PGM (AUD, MONO)	PGM-AUD	PGM AUD, MONO	PGM-AUD	PGM AUD, MONO	AS MAIN CONSOLE	
		600 OHM XFMR +8 dBm, +16 dBm MAX		600 OHM XFMR +8 dBm, +18 dBm MAX		600 OHM XFMR +8 dBm, +16 dBm MAX		600 OHM XFMR +8 dBm, +18 dBm MAX					
FREQUENCY RESPONSE	±2, 30 TO 20K	±0.50 dBm 20 Hz TO 20 kHz @ +8 dBm OUTPUT									±0.5 dBm, 20 Hz -20 kHz		
DISTORTION	0.5% @ +8 dBm	0.5% @ +16 dBm		0.5% @ +18 dBm		0.5% @ +16 dBm		0.5% @ +18 dBm					
NOISE	65 dB (UNWEIGHTED) BELOW +8 dBm OUTPUT WITH -50 dBm INPUT									-72 dB			
MONITOR (SPEAKER)	1.5W	5W	4W (2W/CHAN)	10W	20W (10W/CHAN)	5W	4W (2W/CHAN)	10W	20W (10W/CHAN)	10W	20W (10W/CHAN)		
CUE	.5W INTERNAL SPEAKER PROVIDED, TERMINALS FOR EXTERNAL SPEAKER									.5W INTERNAL SPEAKER			
HEADPHONES	.5W FRONT PANEL JACK FOR LOW OR HIGH IMPEDANCE HEADPHONES												
MUTING RELAY W/CONTACTS FOR ON AIR LIGHTS	1	2	1 (2ND OPT)	3		2	1 (2ND OPT)	3					
VU METERS	1 PGM	1 PGM	2 PGM	1 PGM 1 AUD	2 PGM OR AUD	1 PGM 1 AUD	2 PGM	1 PGM 1 AUD	2 PGM OR AUD	1 PGM 1 AUD	2 PGM 2 AUD		
SPECIAL FEATURES	RACK MOUNT OPTION	MODULAR PLUG-IN ELECTRONICS								DUAL PLUG-IN POWER SUPPLY FET SWITCHING REMOTE CONTROLLABLE NOISE 72 dB BELOW +8 dB OUT		REMOTE LINES EQUIPPED W/PROVISION TO MIX CUE OR FEED MONITOR SIGNAL TO REMOTE LINE	

All Consoles Feature:

- DC CONTROLLED, LOW NOISE FET, AUDIO SWITCHING
- INTERNAL POWER SUPPLY
- ½ WATT CUE AMPLIFIER AND INTERNAL CUE SPEAKER
- ½ WATT HEADPHONE AMPLIFIER, FRONT PANEL HEADPHONE JACK FOR LOW OR HIGH IMPEDANCE PHONES
- NOISE SPECIFICATION 65 dB (UNWEIGHTED) BELOW +8 dBm OUTPUT
- INPUT AND OUTPUT CONNECTIONS MADE INTERNALLY TO SCREW TERMINALS
- ALL INPUT AND OUTPUT TERMINALS LABELED IN CONSOLE
- ALL STEREO MODELS – OUTPUT AMPLIFIERS EQUIPPED WITH LEFT AND RIGHT CHANNEL BALANCE TRIMMERS



BROADCAST ELECTRONICS INC.

— A FILMWAYS COMPANY —

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