

Model 4BEM-50

- 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 monitoring 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:

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

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



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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, $\frac{1}{2}$ A at 250 VAC, resistive loads

Power Requirements: 120 or 240 VAC ($\pm 10\%$), 50/60 Hz

Size: 18" Wide X 13" Deep X 7.5" High

Options

Rack Adapter for 19" rack
230V/50/60 Hz operation

Spotmaster

AUDIO CONSOLE

Model 5BEM-100

- 5 mixer monaural dual channel console
- High or Low level inputs on all mixers
- FET Audio Switching
- Audition and Program Channel Outputs Standard

The monaural 5BEM-100 is a top-value dual channel console. The solid state, plug-in amplifiers offer superb operating specifications. All five mixing channels accept either microphone or line inputs as selected by internal switching. Separate identical amplifiers for the audition and program channels are supplied. The 3½-inch VU meter is switchable to monitor either the audition or program channel. 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:

- 10 inputs into 5 mixers, 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 HiZ
Front panel jack and internal connections available

Frequency Response:

- Program and Audition: ±0.5 dB, 20 Hz to 20 KHz, reference 1 KHz
@ +8 dBm output into 600 ohms
- Monitor: ±2 dB, 50 Hz to 20 KHz, reference 1KHz at 1 Watt output into 8 ohms

Distortion:

- Program and Audition: 0.5% THD or less with +16 dBm output into 600 ohms
- Monitor: 1% THD or less at 5 Watts into 8 ohms

Signal to Noise:

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



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Muting:

Two relays

Monitor Muting: Monitor outputs through both relays

Cue Muting: Relay 1 mutes **i**nternal 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 2.

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

Power Requirements: 50W, 117 VAC, 50/60 Hz or 230 VAC, 50/60 Hz

Size: 29.5" Wide X 13" Deep X 7.5" High

Options

230 VAC/50 Hz Operation

4 mixer extender with remote line capabilities

Model 5BEM-200

- . 5 mixer monaural, dual channel console
- . Daven type step attenuators
- . Built-in 10 Watt monitor amplifier
- . Separate VU meters for the audition and program channels

The monaural 5BEM-200 is a highest quality full dual channel audio console. Ten pushbutton-selected inputs are available to five high or low level (switchable) plug-in preamps. Mixers are precision ladder attenuators. Selection of audition or program channels is by FET's--fast, quiet, distortion-free, and remote controlable! 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 P. C. cards.

The 5BEM-200 has full built-in monitoring capabilities. The ten Watt monitor amplifier delivers sharp, true sound to three individually muted outputs. 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 #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, soldered) through two access channels in console bottom.

Specifications

Inputs:

10 inputs into 5 mixers (2 inputs per mixer). 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



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, +18 dBm output into 600 ohms

Monitor: 1% THD or less at rated load and output

Signal to Noise:

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

Muting: Three relays

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: 60 Watts, 115V or 230V, 50/60 Hz

Size: 29.5" wide X 14" deep X 9.5" high

Options

230V, 50/60 Hz operation

4 mixer extender with remote line provisions

Model 5BES-100

- . 5 mixer stereo console
- . Optional Dual Channel
- . Accepts mono or stereo inputs
- . Long-life sealed mixers

The stereo 5BES-100 is an inexpensive 5 mixer console with full capabilities. Ten inputs and all input amplifiers switchable for either mono or stereo sources. A unique feature for a console of this price. Of course, switch selection of microphone or line level sensitivity. All solid-state electronics with FET audio switching are standard features. Conveniently, the electronics are on plug-in modules. Amplifiers are supplied for stereo headphones, stereo speakers, and internal or external cue speaker.

Options allow even greater versatility. Full dual operation is available by adding line amplifiers for the audition channel. A matrix is available to provide a separate composite monophonic output derived from the main stereo output.

Specifications

Inputs:

- 10 inputs into 5 mixers (2 inputs per mixer). 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 (82K 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; +16 dBm maximum
- Optional Mono: 600 ohm transformer balanced; +8 dBm nominal; +16 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



Signal to Noise:

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

Muting:

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: 75 Watts, 115V or 230V, 50/60 Hz

Size: 29.5" wide X 13" deep X 7.5" high

Options

230 VAC, 50/60 Hz operation

Mono Matrix Card

Audition Channel Line Amplifier

Model 5BES-200

- . 5 mixer stereo dual channel console
- . Daven type step attenuators
- . Mono matrix output standard
- . Accepts mono or stereo inputs

The stereo 5BES-200 provides the best combination of features for the stereo broadcaster or producer. The 5BES-200 is both a stereo and mono console, with identical program and audition channels. The ten pushbutton-selected inputs feed five 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--fast, quiet, distortion-free, and remote controllable! Two 3½" illuminated VU meters can monitor either audition or program outputs. Four interchangeable mixer-output P. C. 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 #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-soldered) through two access channels in console bottom.

Specifications:

Inputs:

10 inputs into 5 mixers (2 inputs per mixer); 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); -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

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



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, +18 dBm output into 600 ohms

Monitor: 1% THD or less at rated load and output

Signal to Noise:

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

Muting: Three Relays

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: 90 Watts, 115V or 230V, 50/60 Hz

Size: 29.5" wide X 14" deep X 9.5" high

Options

230 VAC/50/60 Hz operation

4 mixer extender with remote line provisions

Model 8BEM-100

- . 8 mixer mono dual channel console
- . Long-life sealed pots
- . Separate VU meters for audition and program channels
- . All connections to internal barrier strips

The monaural 8BEM-100 is the complete inexpensive eight mixer console. Plug-in amplifiers are supplied for separate program and audition outputs. Both these outputs are 600 ohm transformer coupled with a capability of +8 dBm. Separate 3½" VU meters are provided for simultaneous monitoring of the program and audition channels. Of course, amplifiers are supplied for monitor speakers, headphones, and a cue speaker. The monitor amp supplies 5 W through two muting relays for studio use. An internal cue speaker is provided as well as connections for an external cue speaker. The front panel headphone jack accepts headsets from 8 ohms up.

Two inputs are switch selectable to each of the eight solid-state pre-amplifiers. Any or all preamplifiers can be switch-selected for a microphone or line level input. The mixers are sealed, long-life units for continued quiet operation without maintenance. All connections are on barrier strips within the console, safe from accidents and tampering. Best of all, the barrier strips are labeled for simple installation and easy reference, no need to refer to service manuals each time you change set-ups.

Specifications

Inputs: 16 inputs into 8 mixers (2 inputs per mixer); 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 ohms, transformer balanced; +8 dBm nominal; +16 dBm maximum

Audition: 600 ohm transformer balanced; +8 dBm nominal; +16 dBm maximum

Monitor: 5 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

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



Signal to Noise:

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

Muting: Two Relays

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: 60 Watts, 115V or 230V, 50/60 Hz

Size: 32.5" wide X 13" deep X 7.5" high

Options

230V, 50/60 Hz operation

Model 8BEM-200

- . 8 mixer monaural, dual channel console
- . Daven type step attenuators
- . Built-in 10 Watt monitor amplifier
- . Separate VU meters for the audition and program channels

The monaural 8BEM-200 is a highest quality full dual channel audio console. Sixteen pushbutton-selected inputs are available to eight high or low level (switchable) plug-in preamps. Mixers are precision ladder attenuators. Selection of audition or program channels is by FET's--fast, quiet, distortion-free, and remote controllable! 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 P. C. cards.

The 8BEM-200 has full built-in monitoring capabilities. The ten Watt monitor amplifier delivers sharp, true sound to three individually muted outputs. 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 #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, soldered) through two access channels in console bottom.

Specifications

Inputs: 16 inputs into 8 mixers (2 inputs per mixer); all mixers high or low level (internally switchable)

Low Level: 150 ohm, balanced; maximum available gain = 92 dBm; -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 and external connections provided

Headphones: 0.5 Watt RMS, 8 or 16 ohms, or HiZ; front panel jack and internal connections available

Frequency Response:

Program and Audition: ±0.5 dB of 1KHz, 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



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Distortion:

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

Muting: Three Relays

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: 70 Watts, 115V or 230V, 50/60 Hz

Size: 32.5" wide X 14" deep X 9.5" high

Options

230V, 50/60 Hz operation

4 mixer extender with remote line provisions

Spotmaster

AUDIO CONSOLE

Model 8BES-100

- . 8 mixer stereo console
- . Optional dual channel operation
- . Built-in monitor, cue, and headphone amplifiers
- . All mixers accept mono or stereo sources

The stereo 8BES-100 features 8 stereo mixers with pushbutton selection of 16 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 program outputs. Program (and optional audition) plug-in mixer-line driver cards provide a transformer-balanced +16 dBm maximum 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. All in stereo, of course. The cue bus features a composite of both the left and right channels for positive preview of stereo sources.

Specifications

Inputs: 16 inputs into 8 mixers (2 inputs per mixer); 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



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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, 115V or 230V, 50/60 Hz

Size: 32.5" 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

Model 8BES-200

- . 8 mixer stereo dual channel console
- . Daven type step attenuators
- . Mono matrix output standard
- . Accepts mono or stereo inputs

The stereo 8BES-200 provides the best combination of features for the stereo broadcaster or producer. The 8BES-200 is both a stereo and mono console, with identical program and audition channels. The sixteen pushbutton-selected inputs feed eight 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--fast, quiet, distortion-free, and remote-controllable! Two 3½" illuminated VU meters can monitor either audition or program outputs. Four interchangeable mixer-output P. C. 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 #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-soldered) through two access channels in console bottom.

Specifications

Inputs: 16 inputs into 8 mixers (2 inputs per mixer); 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

Mono: 600 ohm transformer balanced; +8 dBm nominal; +18 dBm maximum; 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

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, +18 dBm output into 600 ohms

Monitor: 1% THD or less at rated load and output

Signal to Noise:

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

Muting: Three Relays

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: 105 Watts, 115V or 230V, 50/60 Hz

Size: 32.5" wide X 14" deep X 9.5" high

Options

230 VAC/50/60 Hz operation

4 mixer extender with remote line provisions

March, 1974

SPOTMASTER MODULAR SLIDE TYPE AUDIO CONSOLE
MODEL SERIES BEML-1006 Mono
 BESL-1006 Stereo

SPOTMASTER recently up-graded and expanded its standard line of rotary-mixer type audio consoles to the point where the SPOTMASTER is one of the most economical and full feature lines of consoles in the field.

SPOTMASTER now announces the SLIDE-MOD line of linear slide fader consoles. It is the ultimate in full feature consoles.

The SLIDE-MOD line is the only fully modular console in existence, loaded with many valuable features, yet surprisingly economical, never obsolete -- easily expandable.

Start with six mixers, later expand to ten mixers by removing individual cover panels, then plugging in the individual control module.

The basic frame assembly will accept up to ten input modules, with two types of modules available: mic input and line input. All modules have solid state switching actuated by momentary push button routing of audio to program, audition or cue amplifiers. Each module will accept three inputs, with capability of switching each of them into a linear slide type mixer control. An output module elevates the audio to +18 dBm out and provides a master level control.

A cue/phone module provides the cue amplifier, speaker and level control. Also on this module are located the phones selector and level controls. A two watt amplifier provides headphone power. The monitor level and input selector switch are located on this module.



The modules are connected into the master board located in the main frame, as is the monitor/power supply unit. This plug-in unit contains the monitor amplifier, muting relays, and all power supply components. There are no active electronics that cannot be un-plugged.

Optional extender modules are offered to allow expansion of input capabilities for remotes and high level sources.

All functions are completely operable by remote control-- the only console with this feature on the market. Functions are activated by illuminated push button switches.

The SLIDE-MOD is totally versatile, can be used to control and activate other station functions such as cartridge machines.

OTHER FEATURES:

Inputs: Each input module maintains three selectable inputs.

Outputs: Program, audition, monitor, control room, monitor Studio A, monitor Studio B, Cue Headphone.

Mute Relays: Three, with one for each monitor output. Relays may function with any module, in any order.

Mixers: Conductive plastic linear pots.

PGM, AUD/CUE Switching: Momentary push button--illuminated. Located above mixer pot.

Monitor: Ten watt monitor amp may be switchable to monitor, program, and cue, or external air. Monitor control is provided.

Cue: Each input module may be switchable to Cue Amp. A level control and built-in cue speaker are provided. The CUE AMP may be muted by any input module.

Phones: The two watt headphone amplifiers may be switched to program, audition, cue or external air, with level control provided.

Modules: All mixer modules are removable by unplugging without affecting operation of remaining assembly. Master boards may also be unplugged for ease of servicing and expandability. Modules are black-brushed-anodized, with white lettering.

Frame: Frame consists of all steel, welded construction. Exterior finish is blue with walnut end structures. VU meter frame is clear-brushed-anodized aluminum.

SPECIFICATIONS:

Line Input Modules: 3 inputs, transformer balanced, 600 ohms, -20 dBm nominal, +10 dBm maximum, maximum gain 44 dB.

Microphone Input Modules: 3 inputs, transformer balanced, 150 ohms, -65 dBm nominal, -38 dBm maximum, maximum gain 92 dB

Outputs:

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

Audition: 600 ohm, transformer balanced; +8 dBm nominal, +18 dBm maximum (BESL-1006)

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.

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, +18 dBm output into 600 ohms.

Monitor: 1% THD or less at rated load and output

Signal to Noise:

Program and Audition: Noise (unweighted) 70 dB below +8 dBm output, referenced to -50 dBm input

Muting: Three Relays

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 module.

External Contacts (On-Air lights, etc.): 1 A. at 125 VAC; .5 A. at 250 VAC; resistive loads.

Power Requirements: 110 Watts, 115V or 230V, 50/60 Hz

Size: 37.5" wide X 20" deep X 12" high

Options:

230 VAC/50/60 Hz operation

Model BEML-1006

- 6 to 10 linear mixer monaural, dual channel console
- Plug-in mixer modules for microphone or line inputs
- Audio switching remote controllable
- Long-life conductive plastic slide faders

The BEML-1006 Series is a highest quality full dual channel monaural audio console. Selection of audition or program channels is by FET's --fast, quiet, distortion-free, and remote controllable. Ideal for automation systems. Both output channels are continually monitored by individual 3-1/2" illuminated VU meters. Both audition and program channels have transformer-balanced outputs rated at over +18 dBm peak, and are on interchangeable plug-in P. C. cards.

The BEML-1006 has full built-in monitoring capabilities. The ten watt monitor amplifier delivers sharp, true sound to three individually muted outputs. The cue amplifier (relay muted) drives a built-in or external speaker.

The 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, soldered) through two access channels in console bottom.

Specifications

Line Input Modules:

3 inputs, transformed balanced
600 ohms, -20 dBm nominal, +10 dBm maximum, maximum gain 44 dB

Microphone Input Module:

3 inputs, transformer balanced
150 ohms, -65 dBm nominal, -38 dBm maximum, maximum gain 92 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 per channel; will drive 8 or 16 ohms

Cue:

0.5 Watt RMS, 8 ohms; internal speaker

Headphones:

0.5 Watt RMS; 8 or 16 ohms, or HiZ; front panel jack



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, 30 Hz to 20 KHz @ 1 Watt output into 8 ohms

Distortion:

Program and 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 and Audition:

Noise (unweighted) 72 dB below +8 dBm output, referenced to
-50 dBm input

Muting: Three Relays

Monitor Muting: Monitor outputs through each relay

Switching: 24 Volts provided for external control relay

External Contacts (On-Air lights, etc.): 1 A. at 125 VAC;

.5 A. at 250 VAC; resistive loads

Power Requirements:

110 Watts, 115V or 230V, 50/60 Hz

Size:

37.5" wide X 20" deep X 12" high

Options

230 VAC/50/60 Hz operation

March, 1974

PHASE-LOK II STEREO HEAD BRACKET

Spotmaster now offers as standard equipment on all stereophonic cartridge machines the improved PHASE-LOK II head mounting and tape guidance systems to minimize phase differences which degrade frequency response, change channel relationships, and increase cross talk in FM stereo transmissions.

The original PHASE-LOK, specifically designed to meet the critical demands of stereo performance, has won acclaim from broadcasters since 1971 and was the first to meet the requirements of England's Independent Broadcasting Authority--the first regulatory body to require specified phase performance from cartridge machines.

PHASE-LOK II incorporates this same performance and adds features of its own:

Adjustable head penetration to provide proper head wrap for different manufacturer's cartridges.

Preset head height and zenith for minimum adjustment.

Side azimuth adjustment capability for external adjustment of multiple deck units.

Simplified head replacement since usually only azimuth adjustment is required.

Independent azimuth adjustment with the smooth micro-lever which gives little interaction with other adjustments.

Unchanged are the features which made PHASE-LOK the choice of critical broadcasters:

Precision tape guides of rugged stainless steel for reliability.

Full three-plane head movement necessary for critical adjustment allows setting precisely the azimuth (high frequency), zenith (stereo phasing), and head tracking height.

Adjustment locks to prevent accidental misalignment of the head in use.



Tape guidance is more critical in stereophonic than monophonic machines because of the FM multiplex transmission system in which the left and right channel signals are added together for transmission and then separated at the receiver. If there are time differences (electrical phase) between similar signals on the two tracks, the transmitter/receiver combination will change the channel relationship and degrade the frequency response by attenuating or cancelling certain frequencies. The greater the phase difference, the lower the frequency of the signal affected.

These phase differences show up on mono FM broadcasts as changes in the frequency response--the lack of highs giving a muddy, tinny sound which seems to disappear altogether at times. In stereo, phase differences cause a drifting of sounds back and forth from right to left.

Phase differences are introduced by all elements of the cartridge tape system--the cartridge, the machine's tape guides, head alignment, dirt on the pressure roller, even the accuracy of the tape width. Good overall stereo operation requires special attention to all these areas.

The PHASE-LOK II head bracket is a significant advancement for the FM stereo broadcaster, since the PHASE-LOK II provides a stable starting reference point for selection of suitable cartridges and tape:

Minimizes adjustment time because of its simplicity. Only minor height and zenith trim is required while azimuth adjustment is virtually an independent adjustment. Multiple cartridges units (Mini Series 303 and 305 units are adjusted without removing the deck) maximizes adjustment efficiency by permitting precise and critical setting.

Provides continuing stable operation because of its rugged, careful construction.

The PHASE-LOK II is standard equipment on all stereophonic SPOTMASTER models. Kits are available for retrofitting earlier models.

Further information on selecting and maintaining cartridges for use in stereo machines is included in an Engineering Bulletin on cartridge maintenance.

A theoretical discussion of the various elements which contribute to stereo phasing problems is also available.

March, 1974

NEW PRODUCT RELEASE

SUBJECT: SPOTMASTER[®] Sound Britener, Model CLE-500 Compressor/Limiter/Expander

As a result of continuing efforts toward helping the broadcaster up-grade his sound, as well as to technically and economically simplify his operations, SPOTMASTER[®] has done it again.

Through uniqueness in combining of a number of existing circuit technologies, along with unique new circuit applications, all in one small package, SPOTMASTER[®] engineering expertise has developed the SOUND BRITENER, an electronic marvel for maintaining a bright, crisp and consistent sound.

One package provides optimum level for maximum modulation power and coverage without danger of over-modulation. Yet the signal processing is smooth and quiet without pumping, sucking of background noise, or distortion.

Through creation of automatic and self-controlling functions, the SPOTMASTER[®] SOUND BRITENER eliminates the need for several companion units, as in some sound improvement systems, at the same time simplifying a maze of controls into three.

The SPOTMASTER[®] SOUND BRITENER combines all characteristics of traditional gated automatic gain control amplifiers and fast acting peak limiters.

Simplicity of operation is found in three controls:

- Input Level Control accepts normal program levels over a 50 dB range
- Output Level Control can be set to match any 600 ohm transmitter or line



BROADCAST ELECTRONICS, INC.
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--Third control is secret of simplicity, allowing user to set desired "tightness", peak-to-average

All controls are recessed behind safety cover on 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 unit to maintain average output at required level. In the event input signal falls more than 20 dB below normal program level, the SOUND BRITENER will expand gain only to previous average level, then hold that gain. 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.

The SPOTMASTER[®] SOUND BRITENER is a simple, practical, and yet sophisticated, answer to what has been a complex, evasive problem, especially for the smoothing out of the sounds in widely ranging program formats.

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

March, 1974

SPOTMASTER BEA-400 MOD-AMP

Modular Amplifier Series

In amplifiers, the broadcaster needs versatility, ruggedness, serviceability, and small size.

SPOTMASTER engineering expertise has developed the MOD-AMP, a modular amplifier package, in a 3½-inch rack space. Each MOD-AMP will accept up to four plug-in amplifier modules.

The basic unit has an extra-rugged welded steel construction. It contains the heavy-duty power supply, and connecting wiring and terminals for the four modules. The modules may be line amplifiers, ten-watt power amplifiers, or preamplifiers. Any module can be used in any of the four sockets.

The plug-in modules are inserted from the front of the rack, and can be operated outside of the unit on an extender card for servicing. All controls are front mounted. Modules and controls are protected from tampering, however, by an attractive cover panel.

Input, output, and remote control connections are made through screw-terminal barrier strips on the rear panel.

LINE AMPLIFIER MODULE - BELM-100

The BELM-100 is a balanced-in, balanced-out variable gain line amplifier. It is ideal for all phone line or other remote applications. It functions equally well as a line receiver or line driver. One MOD-AMP can economically provide proper termination and amplification for as many as four remote or network lines. Inputs or outputs can easily be resistively bridged together to provide fan-in single output line receivers or multiple output distribution amplifiers. Gain and phase stability of these modules are good enough to provide perfect stereophonic or quadriphonic amplification. The gain for each channel can be precisely set to overcome varying line losses.



BELM-100 Specifications:

Input: 600 ohm transformer balanced
Output: 600 ohm transformer balanced
Gain: 35 db maximum, adjustable from total off
Frequency Response: ± 0.5 db from 20 Hz. to 20 KHz., @ +18 dbm output
Distortion: 0.5% or less Harmonic distortion @ +18 dbm output
Noise: At least 70 db below +8 dbm output (-25 dbm input)
Maximum Output Level: +20 dbm

POWER AMPLIFIER MODULE - BEPM-200

The BEPM-200 module provides a solid ten watts (RMS) of clean audio power to 8 or 16 ohm speaker systems. The module's 40 db power gain and 600 ohm transformer balanced input allow it to be used directly from a phone line for monitoring, or the module can be connected together (see illustration) to provide up to 150 balanced 600 ohm outputs.

The power supply of the MOD-AMP can easily handle four power amplifier modules at rated output without crosstalk. Muting of each amplifier is accomplished with quiet, low power consumption, and distortion-free FET switching. Muting can be done individually or can be controlled by a single contact. Only a low current (0.1 mA typical) ground contact is required for muting.

One MOD-AMP unit can provide four separate mono, or two stereo, or one 4-channel monitor systems.

BEPM-200 Specifications:

Input: 600 ohm transformer balanced
Input Sensitivity: 0 dbm to provide 10 watt output at full gain
Muting: FET switching, ground activated
Frequency Response: ± 0.5 db from 20 Hz. to 20 KHz., rated power, resistive load
Distortion: Less than 1.0% Harmonic distortion at rated power, 8 ohm load
Output: 10 watts, RMS into 8 or 16 ohms. Slightly less than 4 ohms

TYPICAL APPLICATIONS

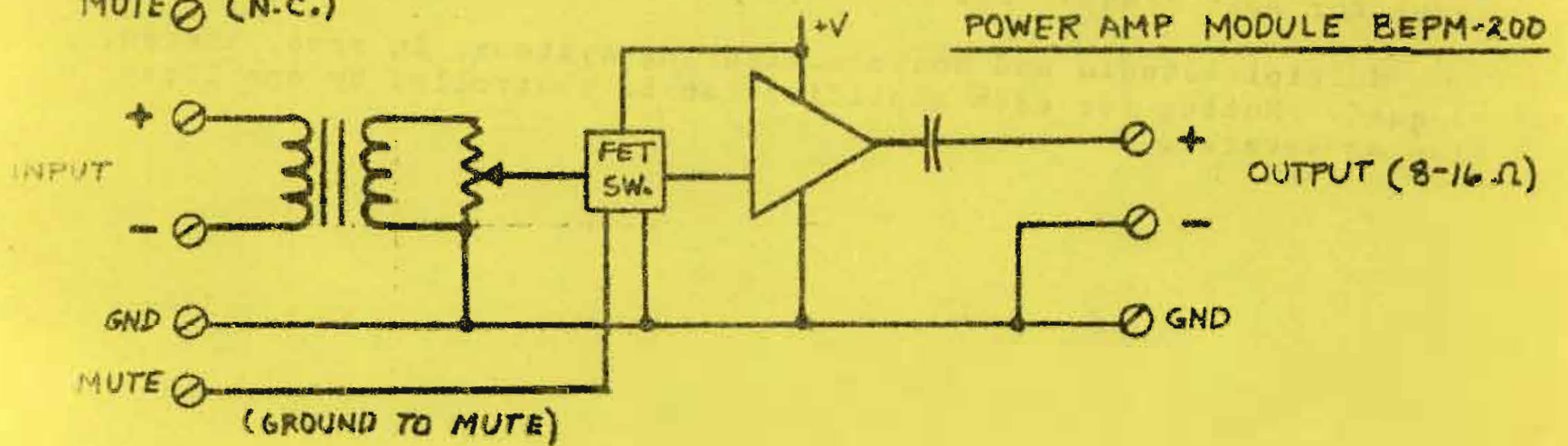
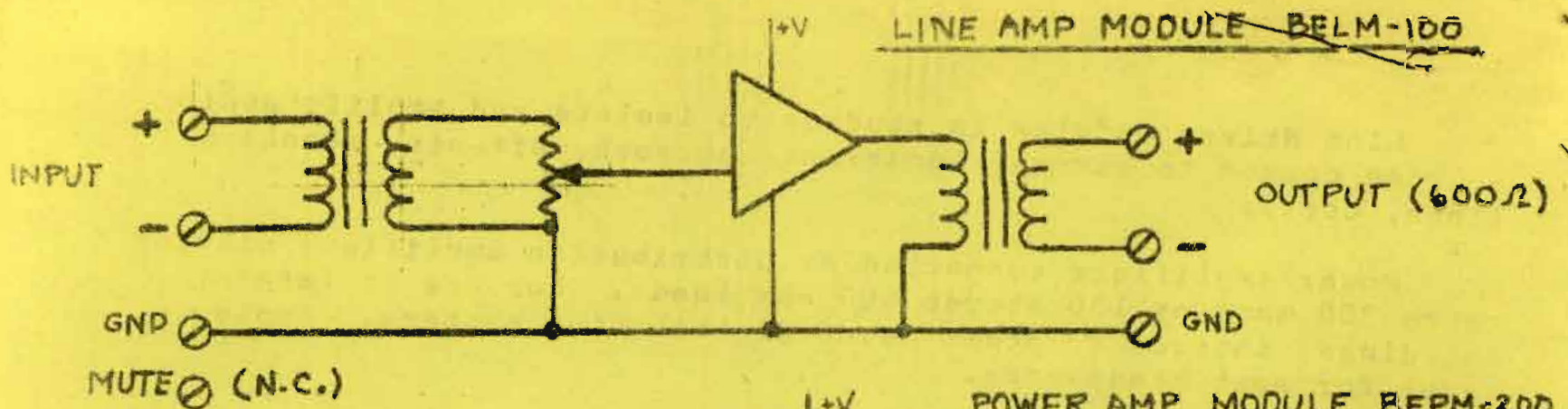
A MOD-AMP at a remote transmitter location with line amp modules out of the phone lines and power amp modules for on-site monitoring, either off-line or off-air. Mono or Stereo in one unit.

Studio monitoring and transmitter feed, mono or stereo.

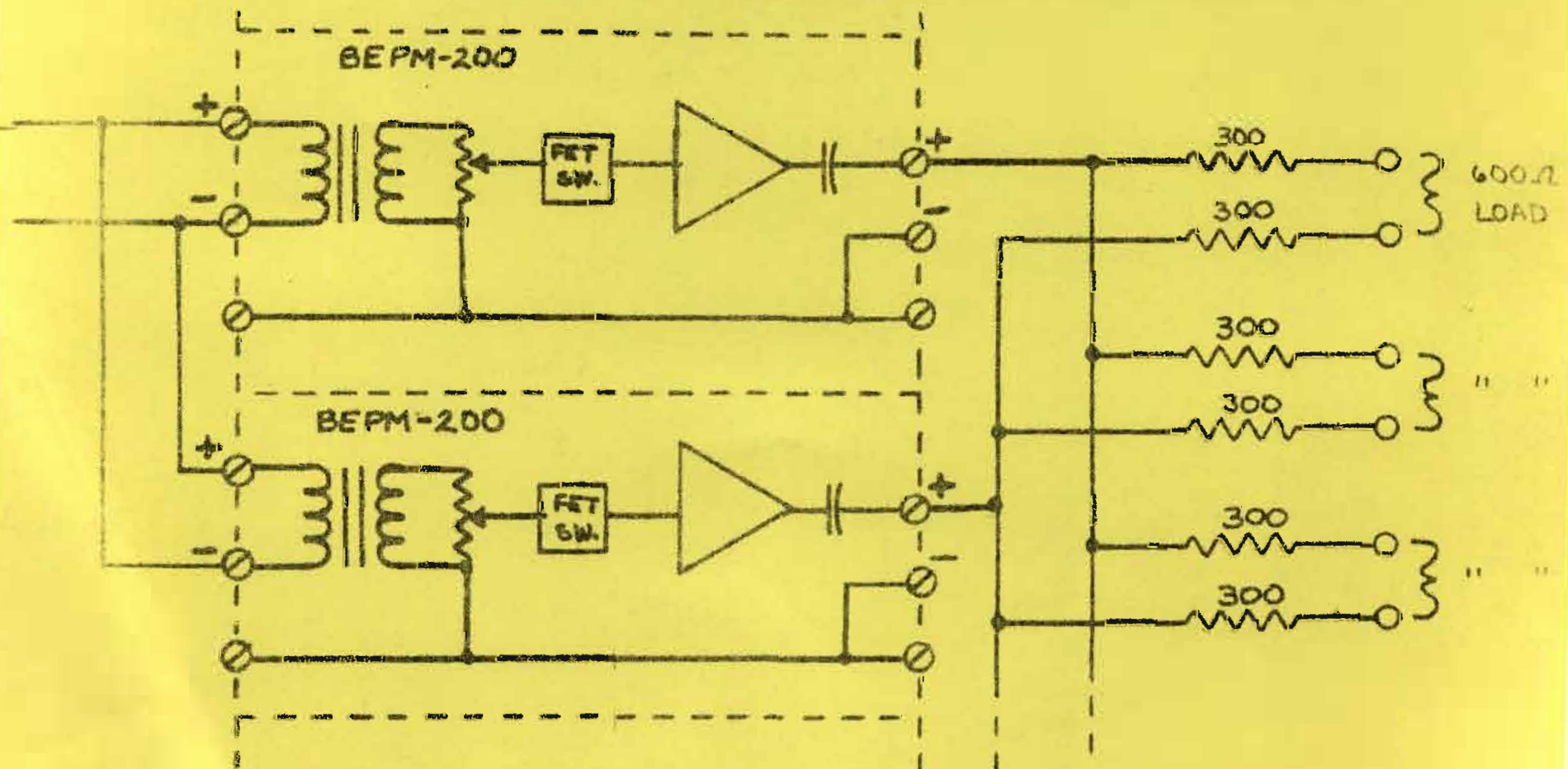
Line driver modules in studios to isolate and amplify audio sources common to several locations (network, off-air, remote lines, etc.).

Power amplifiers connected as distribution amplifiers driving up to 300 mono or 150 stereo 600 ohm loads. For use in large buildings, intercoms, other sound distribution systems. Ample level for most headphones.

Multiple-studio and house monitoring systems, in mono, stereo, or quad. Muting for each amplifier can be controlled by one location or several.



TYPICAL APPLICATION - DISTRIBUTION AMP



DISTRIBUTION AMP
 UP TO 150 OUTPUTS (MATCHED, BALANCED)
 +21 dBm MAXIMUM EACH OUTPUT
 62 dB MINIMUM ISOLATION BETWEEN
 OUTPUTS.

BROADCAST ELECTRONICS, INC.
 - A FILMWAYS COMPANY -

February 4, 1974

NEW PRODUCT RELEASE

SUBJECT: SPOTMASTER[®] TURNTABLE PRE-AMPLIFIER, Model BE TMS-100 AND BE TMS-200

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.

Output level: Switchable -10, 0 and +8dBm
Output Impedance: Model BE TMS-100, nominal 600 ohm
Model BE TMS-200, 600 ohm transformer (coupled)
Signal to Noise: -60dB @ 0dBm output
Frequency Response: ± 2 dB, 30 Hz to 15 KHz (RIAA) NAB
Gain: 54dB @ 1 KHz
Distortion: Less than 0.5% @ +8dBm
Channel Separation: Better than 50dB
Input Level: 5MV sensitivity for +8dBm output
Input Impedance: 47K



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TWX 710-826-0432

March, 1974

AUTOMATION SIMPLIFIED

Almost every broadcast manager has considered audio automation at one time or another. The advantages are well known--

- Increased employee utilization and efficiency. The "on-the-air" operator has more time for duties such as proper logging, sales, public relations, etc.
- Better management control over format and program content.
- Consistent "sound" or quality between operators.

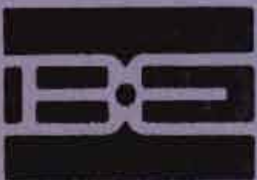
And yet, audio broadcast automation is far from universal. Many stations simply can not overcome the high initial cost of a fully automated package system. Others object to the impersonal nature and inflexibility of such a system. Many who could afford automation do not want to be the first in their market to make the investment, in both equipment and qualified operators.

SPOTMASTER has pioneered an approach that allows the broadcaster to "automate" only as much as he wants to, and can afford to, without saddling himself with a lot of useless equipment if the situation changes. The SPOTMASTER approach is based on the tape cartridge, and all of its advantages--

- Ease of handling, operation, and storage. No threading, cuing, or record jackets.
- High usage and long life. A record is normally worn out after a few dozen airings; cartridges last for thousands. Saves record replacement costs and maintains quality.
- True random selection. Cartridges can be played in any order, while reel-to-reel playing order is fixed.
- Cuing functions without program interference. Pre-roll, audio cancel, and even cue-track automatic logging can be accomplished easily without filtering or crosstalk to the program material.

All of these advantages also apply to manual operation of cartridge equipment. And cartridge equipment is rapidly becoming a main component of full automation systems. No matter which way a broadcaster chooses to go, his investment in cartridge tape equipment is never wasted.

The "automation" of the cartridge equipment involves using the cue track capabilities and the remote control and indication facili-



ties 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, etc. This simple system involves only wiring from one remote control to another (See Figure 1).

The addition of one d.p.d.t. switch per deck allows any deck to be deleted from the sequence. The QI pulse from the preceding deck is switched directly to the start control of the following deck. This is the basic principle of the ESD-15 Sequencer. The ESD-15 is designed to operate 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. In the open loop mode, the alarm contacts are closed as the second-to-last deck is started. This allows the operator time to reload the machines or prepare for his next function. The sequencer stops at the last deck. In the closed loop mode, the last deck starts the first without any alarms. (See Figure 2).

Both of these systems allow for total operator absence. In many cases, however, some operator interaction (such as live tags on commercials) is desirable. This interruption of the sequence can be done automatically. One method (Figure 3) requires that the operator preset a "tag" switch for each cartridge requiring a tag. When that cartridge is played, the QI pulse signals the operator but does not start the next deck. A memory device (flip-flop or SCR circuit) holds the location of the next deck to be started. When the operator finishes his tag, he pushes the restart button, and the next cartridge continues the sequence. If complete remote manual start is desired, the restart button can be eliminated, and the start button of the next deck in the sequence can be illuminated (Figure 4).

Audio control can also be part of the automation function. In many cases, this is already part of or an accessory to the cartridge equipment. The Mini-Series (303D and 305D) has the built-in capability of providing a single output (mono or stereo) 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. The same capability can be wired by station personnel into all the SPOTMASTER consoles with

FET switching. This can include, in the examples of Figures 3 and 4, turning on the announcer's microphone and muting the studio speakers when a tag is required!

If a place-marker, such as the "memories" of Figures 3 and 4, or a stepper relay (Figure 5) is used, the system can be made virtually fail-safe. A silence sensor could be wired so that if there was no audio for say 10 seconds, the next event in the sequence would be started and an alarm sounded. Although bulkier, requiring more power, and sometimes noisy, the stepper relay has the advantage of holding its place if power is lost. When cue-track logging is used, there is no possibility of missing an event and not knowing it.

Highly complex random automation systems can be put together, but require the ability to store a large number of events outside of the program cartridge equipment. Each "event" is the location or identification of a deck or source, usually in numerically coded form. Most large modern automation systems store these events in solid-state computer-type memories. It is possible, however, to store these events on tape cartridges! The programming for some time period can be listed, and a deck number or source for each item assigned. This list of numbers can be recorded on a cartridge using some tone encoding, such as Touch-Tone. The program material is then loaded for the time period required, and the programming tape started. A decoder starts the source called for and the program tape cues to the next event. The end of that segment starts the next programmed event and advances the programming tape. A simple counter keeps track of the event. The sequence can be interrupted (by an announcer, network news, a time clock related event, etc.) and can be instantly reprogrammed by changing the programming tape. The only hardware investment other than tape equipment is for a tone encoder-decoder and wiring (See Figure 6).

Automatic audio tape cartridge systems are limited only by the imagination and material resources of the system user and designer.

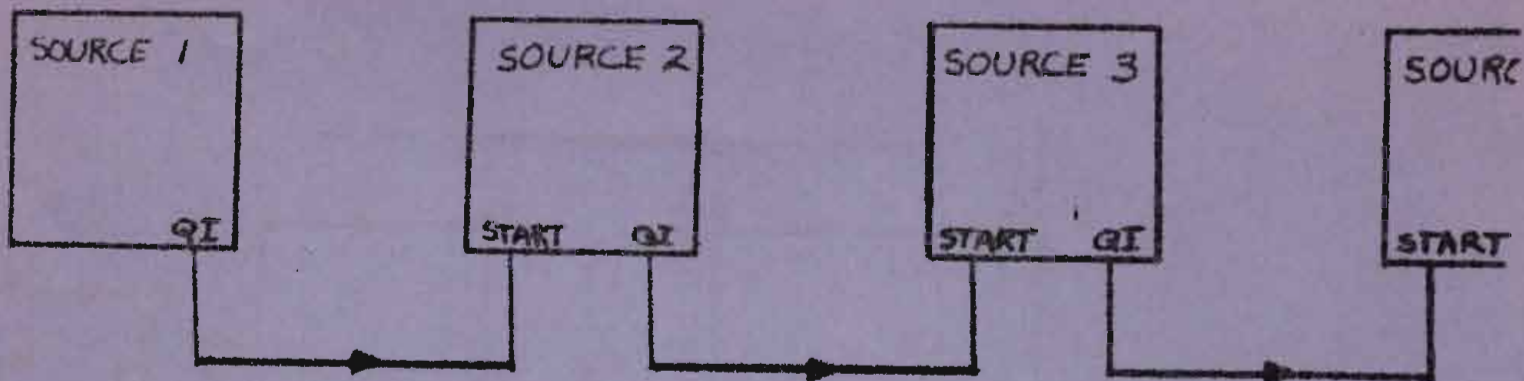


FIGURE 1
BASIC CHAIN SEQUENCER

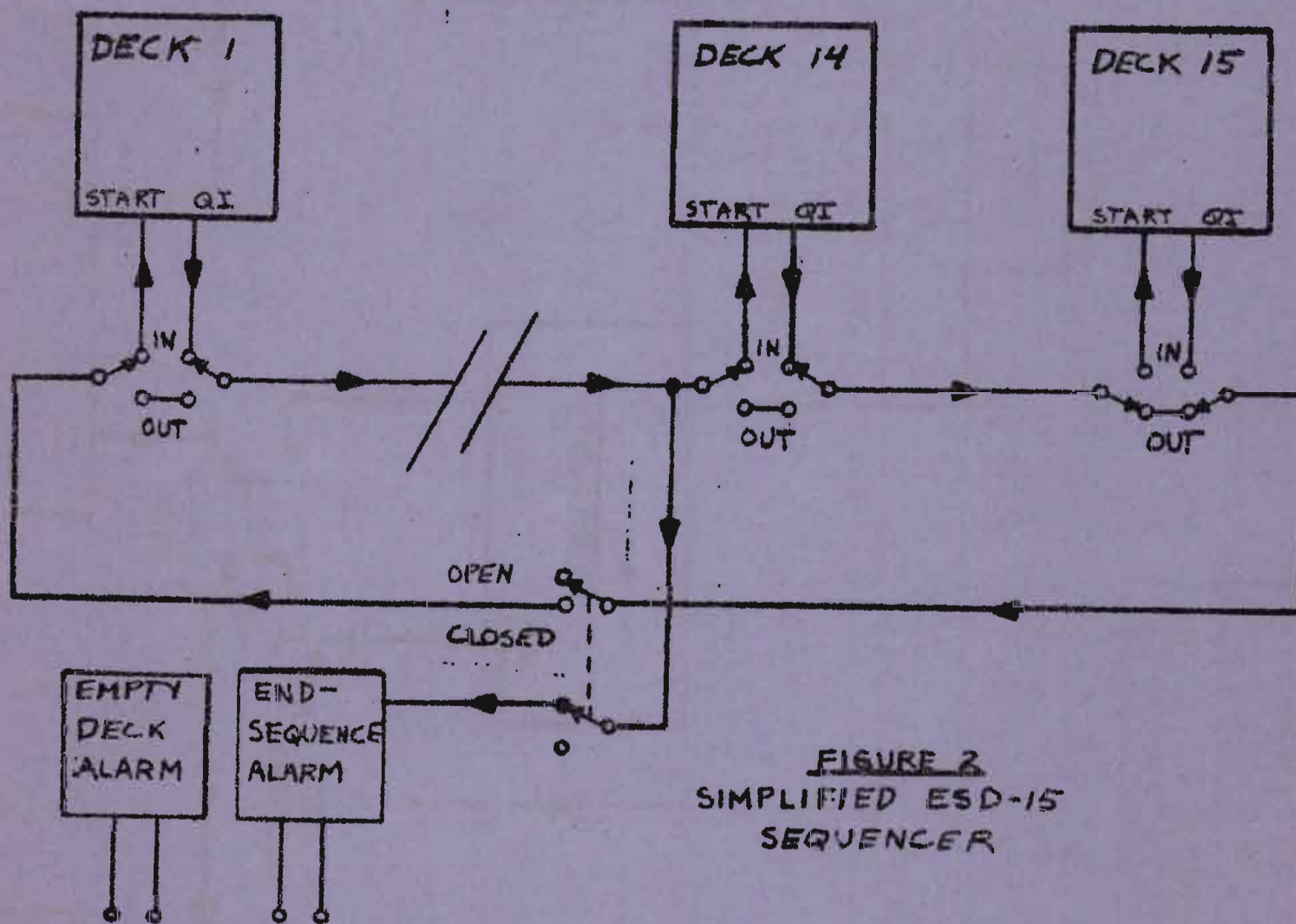
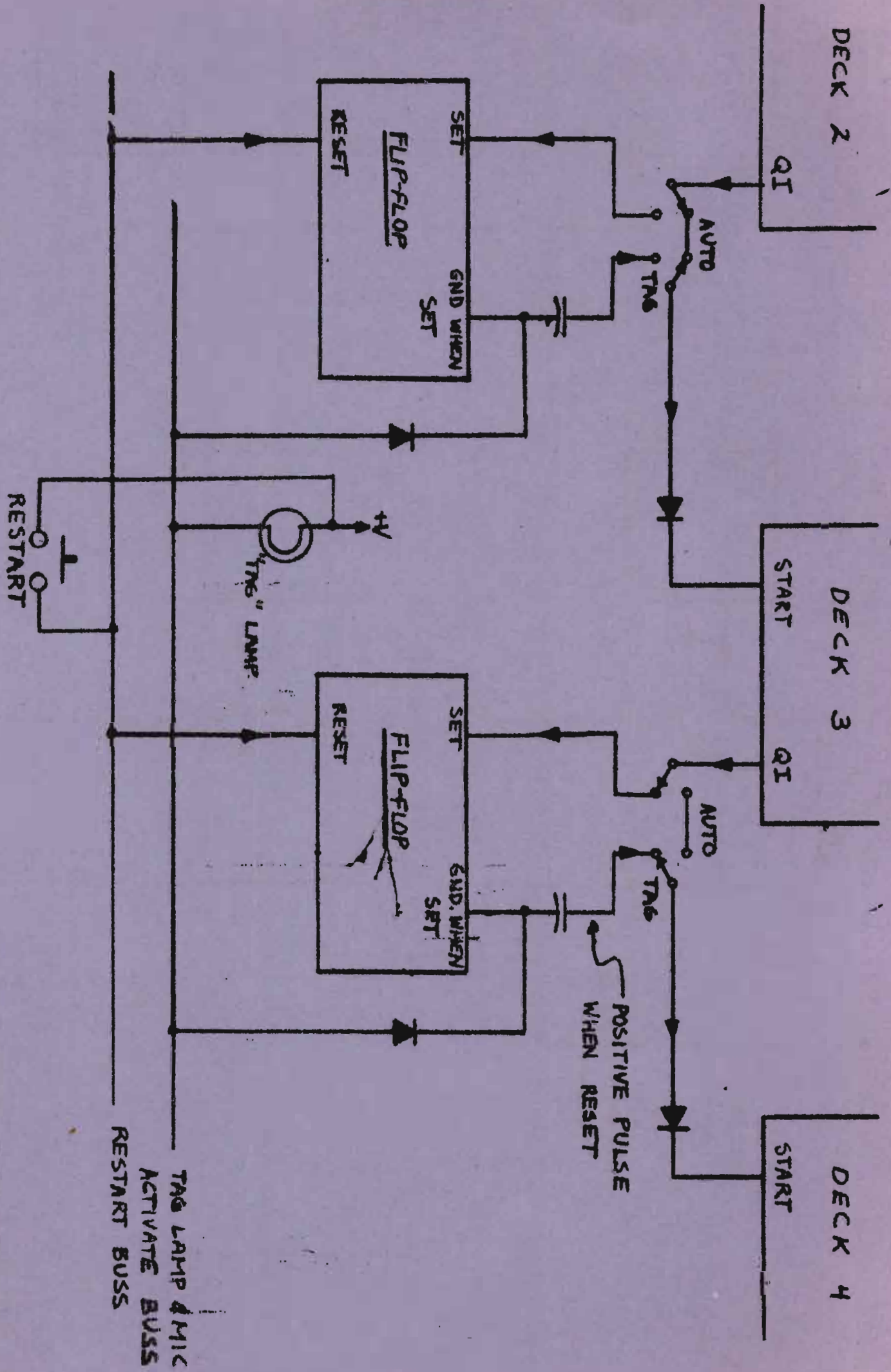


FIGURE 2
SIMPLIFIED ESD-15
SEQUENCER

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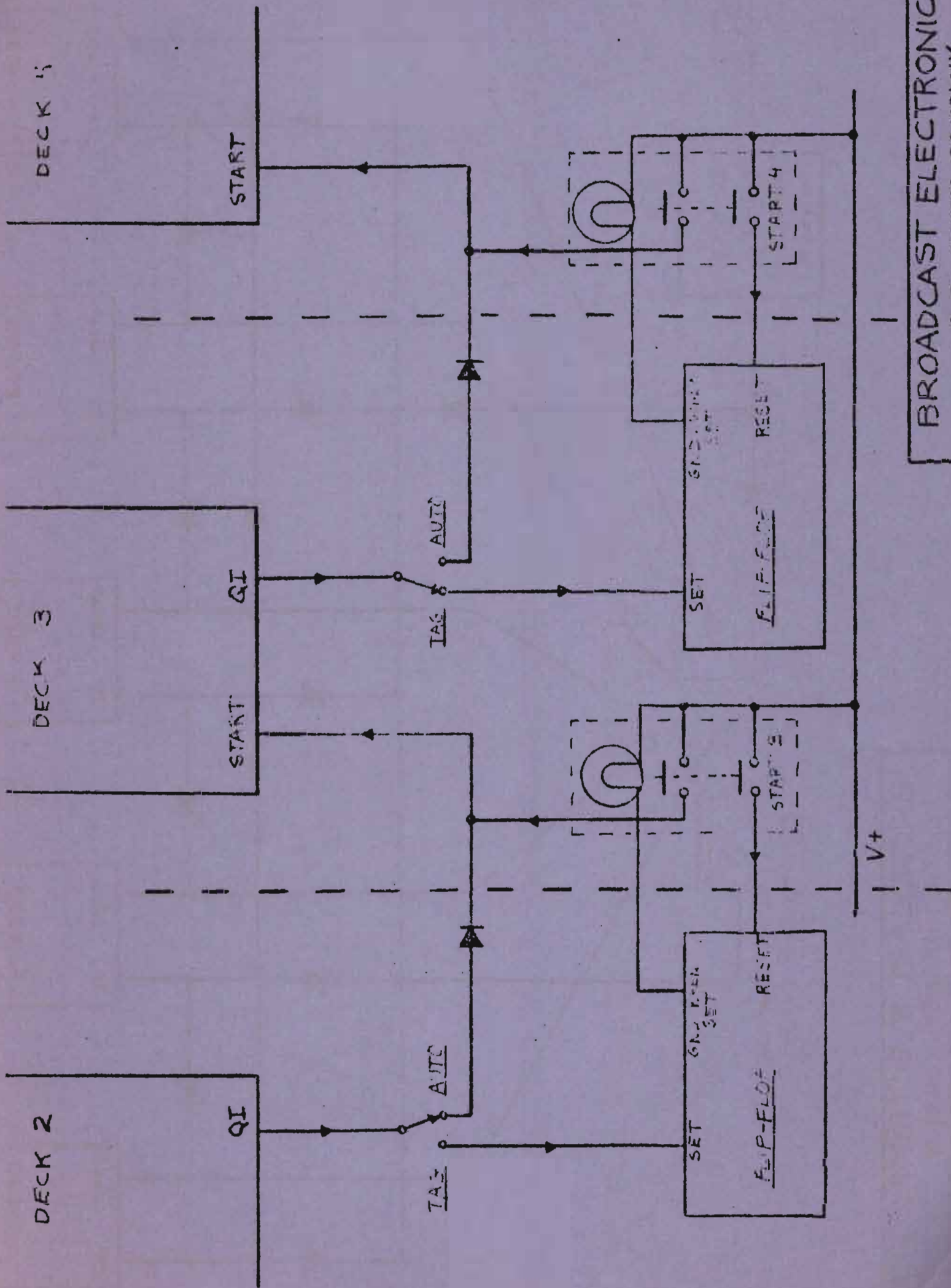
TYPICAL CHAIN SEQUENCERS
(FIGURES 1 & 2)

DRAWN 2-26-74 MIA



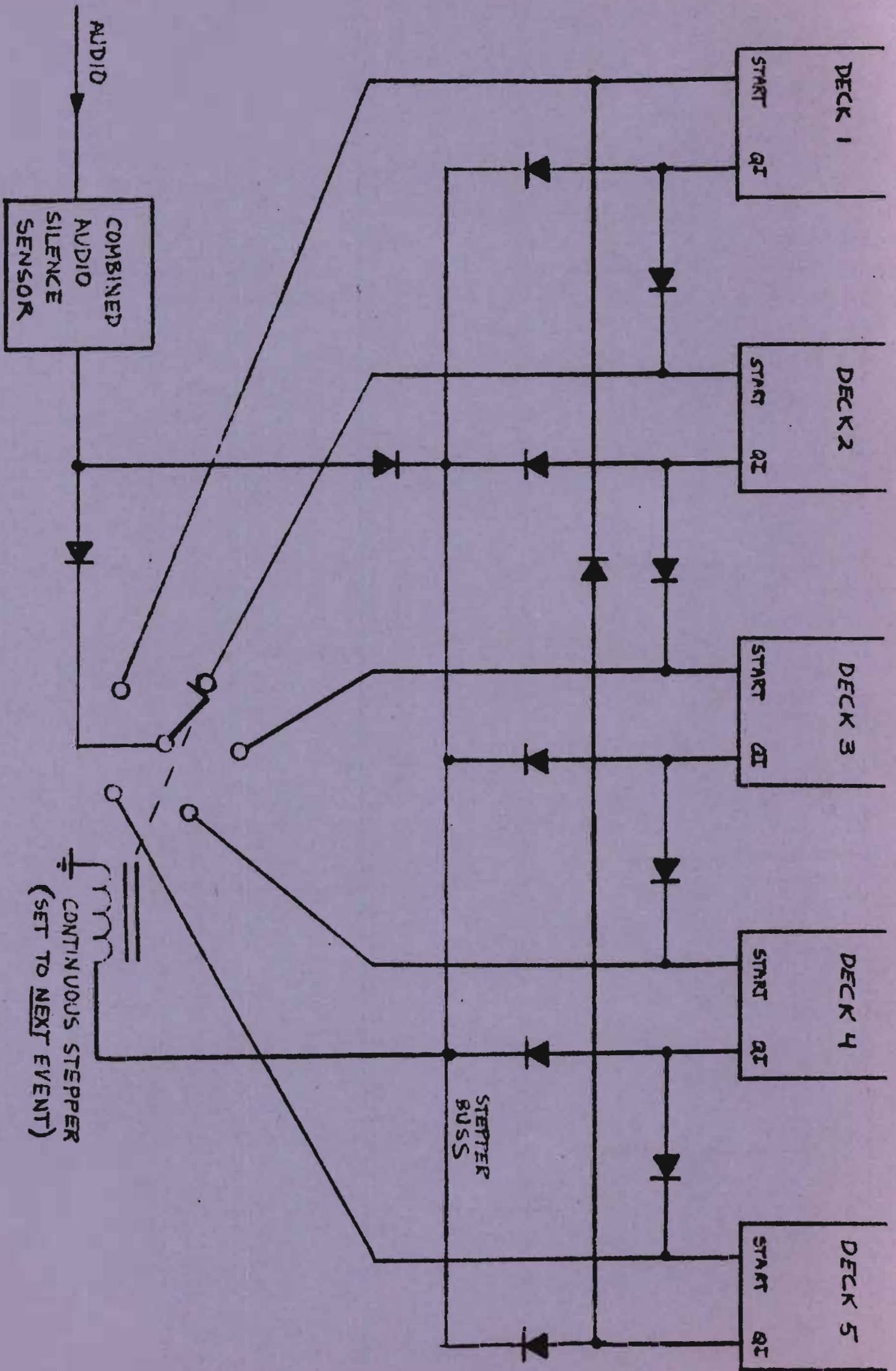
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 FIGURE 3
 SIMPLIFIED INTERRUPT SEQUENCER
 (SINGLE RESTART)

DRAWN MIA 2-25-74



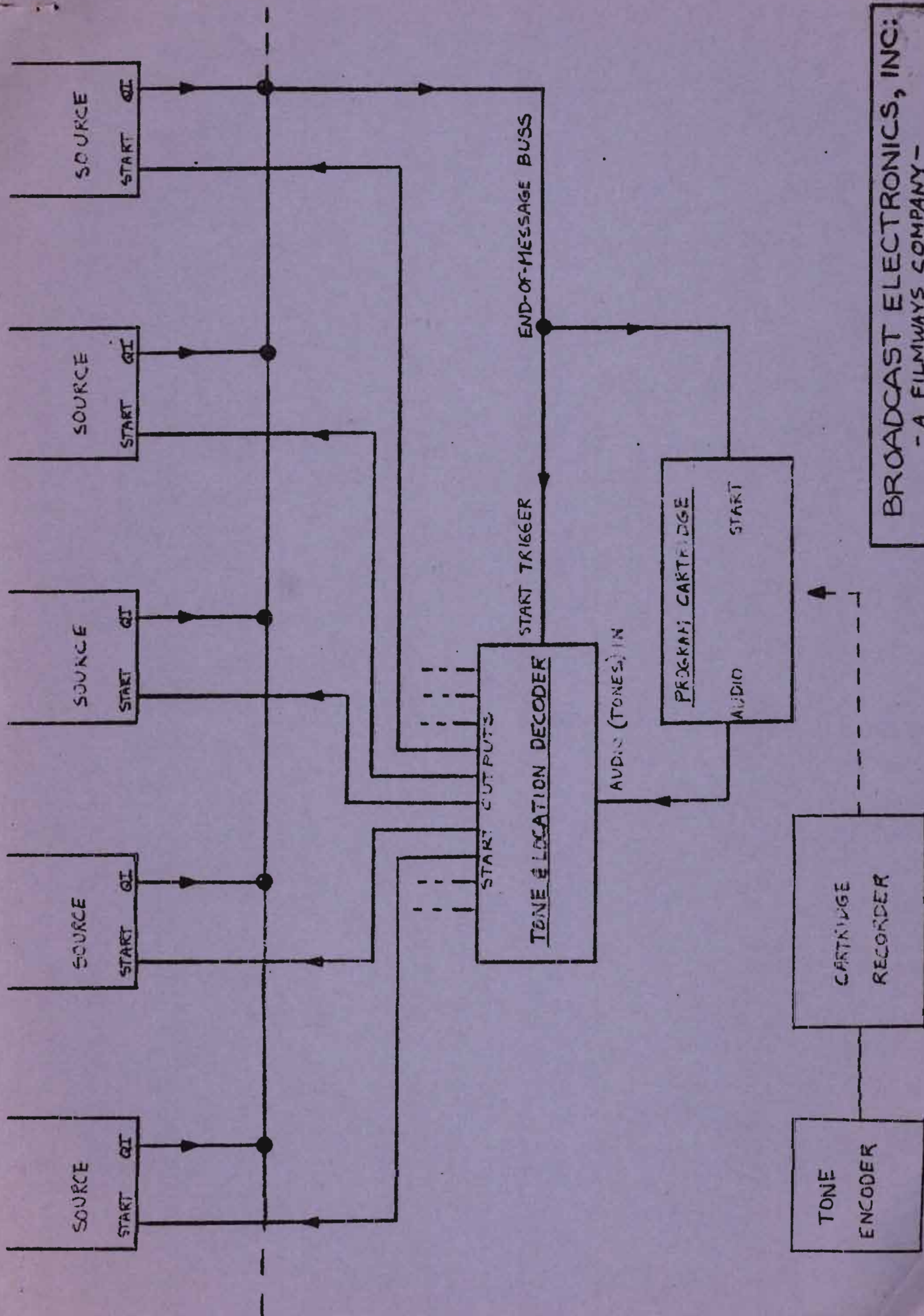
BROADCAST ELECTRONICS, INC.
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 FIGURE 4
 SIMPLIFIED INTERRUPT SEQUENCER
 (MULTIPLE MANUAL STARTS)

DRAWN MIA 2-25-74



BROADCAST ELECTRONICS, INC.
 - A FILMWAYS COMPANY -
 FIGURE 5
 TYPICAL "FAIL-SAFE" SEQUENCER

DRAWN MIA 2-26-74



BROADCAST ELECTRONICS, INC.
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FIGURE 6
 CARTRIDGE PROGRAMMED AUTOMATION

DRAWN MIA 2-26-74

March, 1974

TELCO 80 - TELEPHONE MESSAGE SYSTEM - TELCO 90

TELCO 80 for use with:

400 Series
500 Series
605/610

TELCO 90 for use with:

Ten/70
Three/70
303/305

The TELCO 80/90 units provide audio and cartridge recorded-reproducer control interfaces with the Western Electric RDM/RDL Recorder Connectors. They give the user the option of fully automatic or manual announcement play and/or message record operation. These capabilities are totally unique in telephone/tape cartridge interface devices:

- Automatic playing of a pre-recorded announcement, or two announcements in sequence (from two different decks or machines).
- Automatic playing of a pre-recorded announcement and then recording a message of open or limited length from caller.
- Automatically answer and directly record a message from the caller.
- Manually play cartridge or record cartridge during a telephone conversation with a single button.
- All functions provided with two permanently connected cartridge units--no patching or reconnection.
- Each incoming call or manual operation is automatically tallied, regardless of operating mode.
- Power totally derived from the connected SPOTMASTER machines; each machine can function with the TELCO unit completely independent of the other (disconnected, power off, unloaded, or disabled, etc.).
- Absolutely no interference with the connected telephone when in the Manual mode.
- Each TELCO 80/90 can be used with any SPOTMASTER model in the correct series (see above) simply by changing the connecting adaptor cable; no wiring changes to the TELCO are necessary (Note: one-time wiring changes may be necessary on machine remote control connector in some earlier models, for use with TELCO 80/90).



CONTROLS:

Manual/Automatic Select: Selects operational mode. Will allow Recorder connector to start cartridge machine, seize phone line, and connect audio path in Auto mode, when ringing voltage is sensed.

Manual Play: Connects audio to phone line and starts cartridge deck in play position. Phone line is held by TELCO even if handset is replaced in cradle, until message is over or distant party disconnects (most newer exchanges).

Manual Record: Same as Manual Play, but record cartridge deck is activated. Unless disabled, this deck will be in record mode and will hold line until manually stopped, automatically re-cues, or distant party disconnects.

Auto Play Only: Starts playback deck and seizes line when ringing voltage is sensed. The line is released when the cartridge re-cues. The TELCO will only seize the line if a cartridge is loaded and actually starts.

Auto Play/Record: Will play the pre-recorded announcement as in Play Only mode. When the TELCO detects the 150 hz (Q1) closure from the playback deck, the audio direction of the recorder connector is reversed (RDL version), the record deck is started in the record mode, and a tone is sounded to the distant party. The TELCO can be wired so that the playback deck re-cue disconnects the phone line and stops the recording, or the distant party disconnect or recording cartridge re-cue can disconnect the line.

If the second deck is a play only deck, and the RDM (bi-directional audio) recorder connector is used,

two different announcements can be aired in sequence. The second deck re-cue will disconnect the phone line.

Auto Record Only:

The ring-up voltage will start the record deck directly, and switch audio to its line input. The function is the same as the second half of the Play/Record mode.

APPLICATIONS:

The SPOTMASTER TELCO series has found its heaviest usage in public or restricted public information phone-in systems. High quality audio is presented to the caller automatically. TELCO 80/90 adds the capability of presenting two different messages in sequence. This means that short-term information can be updated easily without re-recording more permanent data. Top-Ten playlists combined with weather reports or a sponsor's message are such a combination. Or daily feature stories and hourly market reports. Business groups and government agencies use the TELCO to keep their members, the press, or the public informed on important issues, at the convenience of the caller. At any hour of the day, from anywhere in the country.

The automatic Play/Record or Record-Only functions make the TELCO 80/90 systems information gathering as well as disseminating systems. No important news or business information need ever be lost because no one was around to answer the telephone. And information recorded on cartridges is easy to retrieve. Each segment or call is separated by a stop-tone for easy indexing. Information can be preserved by simply changing cartridges; no dubbing or re-recording is necessary. The quality is always perfect.

The TELCO system is equally functional manually. Newsmen, salesmen, businessmen, can all present pre-recorded stories, data, or presentations during a telephone conversation with the touch of a button. It is just as easy to record part or all of any call. One receptionist or operator can handle dozens of information request lines when each line has a TELCO unit and cartridge reproducer, and all of the information likely to be requested has been pre-recorded. The caller is assured of hearing all the necessary information in the proper order, without hurry or interruption.

In short, SPOTMASTER TELCO systems can be used wherever a telephone is a necessary business tool.

March, 1974

TAPE CARTRIDGE AUDIO DELAY IN BROADCASTING

Delaying (or temporarily storing) audio signals is just one of the common broadcasting tasks easily performed by tape cartridges. The cartridge excels over other methods of producing a delay for many reasons--

- Continuous operation. No threading or rewinding or erasing of tapes for hundreds of hours of operation.
- Delay time adjustable. Changing the length of delay is as simple as changing a cartridge. In the SPOTMASTER system, the delay is determined by the length of tape in the cartridge. Tape speed, guidance, or head position are never changed, so full quality is constantly maintained.
- Wide range of delay available. Delays of from 3 seconds to 62 minutes can be realized with cartridge systems. This is a 250:1 increase in range over the nearest competitive system.
- Small size and economy. A cartridge delay unit can take up as little as two square feet of table top or 5-3/4 inches of rack space. In addition to the low initial cost of delay machines, most models are also normal recorder-reproducers for 100% utilization. Set-up and operation are as easy as any other cartridge use, so no extra labor or special training is involved.

The need for a delay device in broadcasting has been obvious for many years. The operation of such a device has not been so obvious. A practical system (see Figure I), however, is simple enough to be operated by a single person with ease and complete safety.

For a better idea of how the delay system operates, follow the time sequence of events in Figure II, in a talk-show situation. There are two time frames involved: studio (real time), and air (delayed time). The operator (moderator or producer) never has to hear or consider the delayed time. He does have full metering as an indicator of possible problems. When the operator hears an objectionable comment in studio time, he simply pushes the mute button. The mute, however, works in delayed time. He is actually muting all the material that began in the delay interval (say 6 seconds) BEFORE he pushed the mute button. If he holds the mute



(or it is held automatically) for six seconds, he is effectively muting all the material in the six seconds before he first pushed the button. Since the mute would end in delayed time at the point in the programming where it started in studio time, the moderator can continue the flow as if nothing had happened. Indeed, a studio audience would have no indication of the muting.

The mute button does several things in the system pictured. The timed mute begins, and a pre-recorded message is inserted. The message could be an explanation of reason or policy for muting, a station ID, or just fill music or jingle. Even the dropping of the phone line could be included. At the end of the delay interval, the programming is resumed.

The operator has several seconds to make up his mind in this system. When he does, he takes only one action and can then continue without interruption or panic.

The delay cartridge machine can be just as useful in daily studio operations. It can be used to preserve the continuity of network or remote programs that must be interrupted with local material. The procedure has three steps--

- A cartridge the length of the inserted material is loaded in the delay machine and started in the delay mode. The output of the delay unit should not be connected.
- The remote source is switched to the input of the delay unit and the local material aired. The remote will then run through the delay unit until that programming is completed.
- At the end of the local material, the output of the delay unit is connected to the normal programming channel, and the interrupted program will appear to take up where it left off.

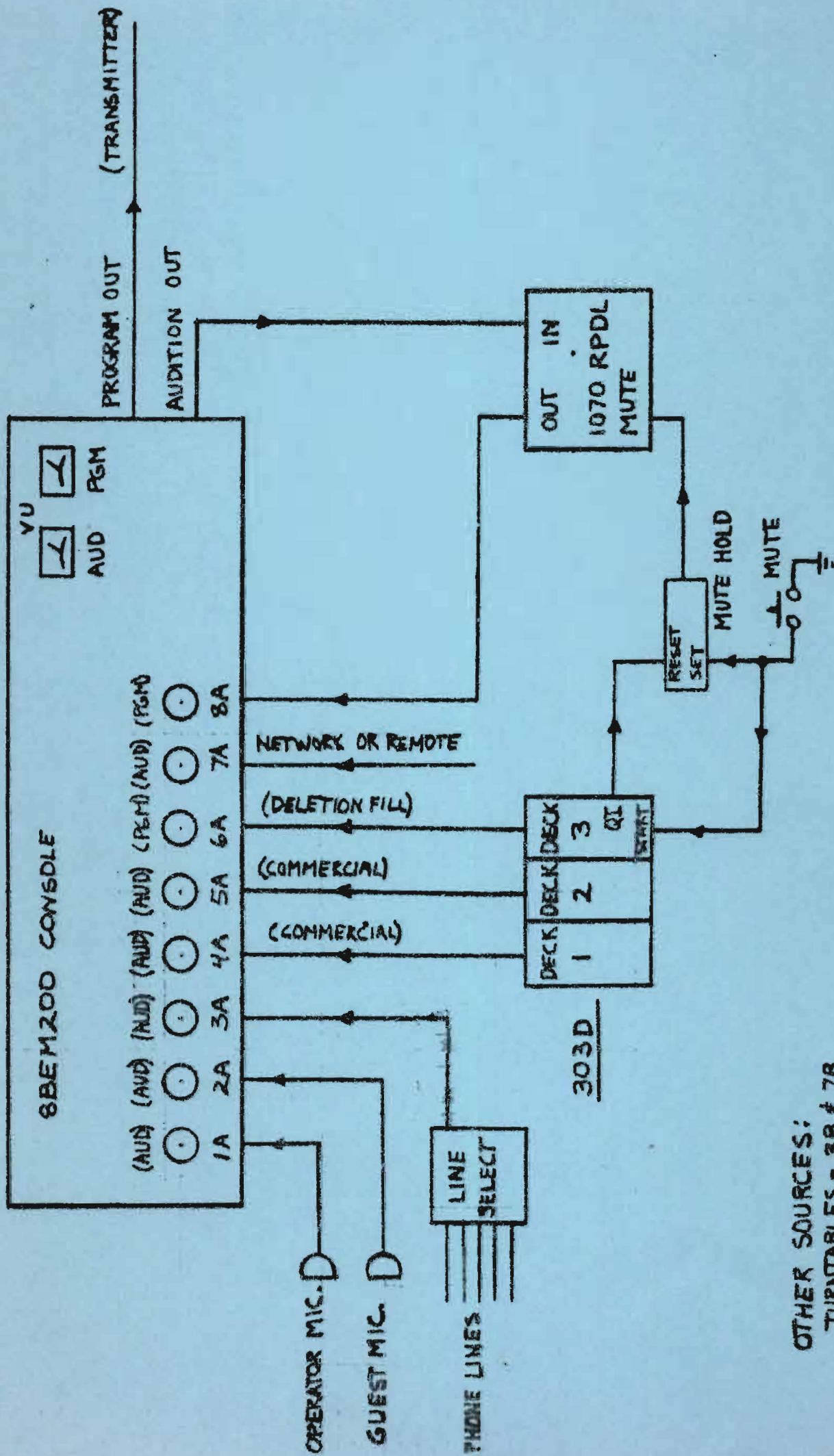
With dual-channel consoles, such as the SPOTMASTER BEM-200 series, the entire process can be done with the Audition-Program key switches. The input to the delay machine is connected to the Audition output. The remote source comes into one mixer, and the output of the delay unit to another. At the beginning of the interruption, the remote source is switched from Program to Audition, and left there. At the end of the interruption, the output of the delay unit is switched from Off to Program. It remains there for the duration of the program.

A variation of the delay cartridge machine, dubbed the Audio Scratch-pad Memory, combines the erase capability with cue-tone recording. It is designed to intermittently record information, which can then be high speed indexed in the play mode. The ASPM will over-record old material on the tape and replace it with more current information. Accessories to this unit include voice and telephone operated start-stop control.

The broadcast home of the ASPM might be in the news room. Routine calls to regular news sources could be automatically recorded, held for more than 30 minutes of calls, and then automatically erased. If information is required from any call on the tape, it can be fast-forward advanced to that call. The ASPM will stop at the beginning of each call. The hands-off operation and broadcast quality audio record replace hastily scribbled notes with hard facts and clean actualities. And no worries about changing tapes or listening to hours of material to find a story. Information can be preserved by replacing the cartridge.

The ASPM, permanently connected to a switchboard or receptionist's phone, can provide valuable information in cases of undesirable or threatening calls. Privacy is preserved because normal calls are routinely erased. A clear permanent record is available when necessary. The unit can be remote located and requires no attention from the operator until after a call.

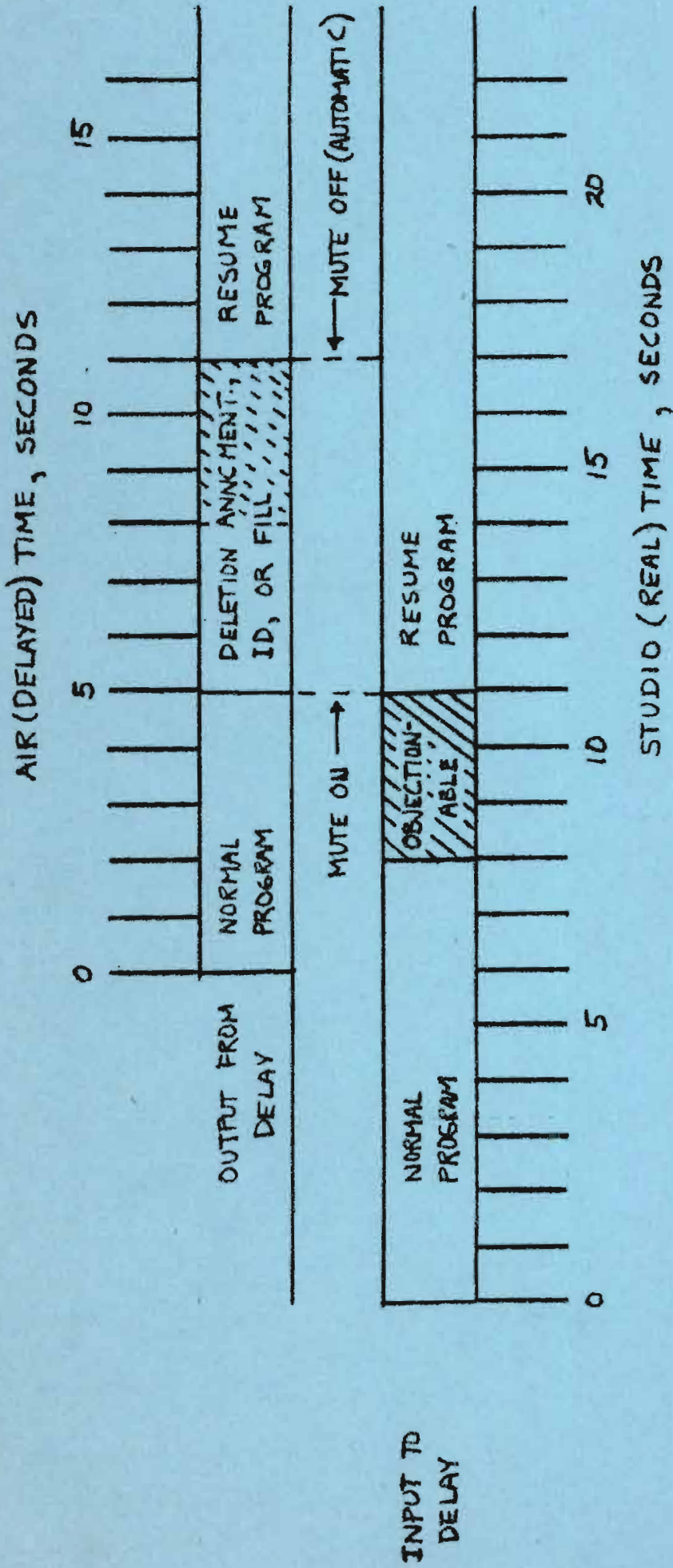
In effect, cartridge tape delay systems allow the broadcaster to anticipate his need for action or information after the fact. As such, its usefulness as a programming, news, and business tool is unlimited.



OTHER SOURCES:
 TURNTABLES - 3B # 7B
 REEL-TO-REEL - 8B

BROADCAST ELECTRONICS, INC.
 - A FILMWAYS COMPANY -
 TYPICAL USE OF DELAY IN A TALK STUDIO
 (FIGURE I)

DRAWN MIN 2-24-74



BROADCAST ELECTRONICS, INC.
 -A FILMWAYS COMPANY -
 DELAY OPERATION TIMING
 (FIGURE II)

DRAWN BY A. J. SMITH

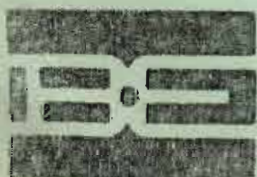
March, 1974

SPOTMASTER NEWS CENTER

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--

- Unattended telephone operation. The Telco 80 and cartridge machines can answer incoming calls (single or multiple line phones) and play announcements from one or two different cartridges; play one announcement and then record a message from the line; or answer the call and immediately begin recording. Total recording or playing time is over thirty minutes, and message length can be limited.
- Manual phone operation. At any time during a phone conversation a cartridge can be played or recorded through the telephone with the touch of a single button. Recording cartridges can be indexed at any time with cue tones as convenient references. As the recorder starts, a short tone is sounded to the recorded party automatically, as a legal notice and a start mark (true for automatic and manual modes).
- Production and editing. Connections are made through the Telco 80 for dubbing from the play to record cartridges machine. This can be done without interfering with normal phone use. If the 505DA (built-in amplifier/speaker) is used, cartridge editing and dubbing can be done without any other equipment. The built-in microphone preamplifier of the 500D recorder can be used to make a stand-alone voice production center. Up to eight sources can be handled through the four-channel console. Input levels from microphone to high level can be accommodated. Built-in amplifiers for monitor, headphone, and cue, and a muted cue speaker are provided.
- On-the-air. The console provides a +16 dBm balanced output of exceptional quality capable of driving any phone line or trans-



mitter input. The cartridge machines and microphone can be used directly to deliver live or pre-recorded newscasts, or even serve as an emergency main or production studio. The expanded system, using a Five-Spot® 605C with record module MRM-600, provides an additional two play decks (four total) for any on-air use. The entire system is light and compact enough to be moved from room to room or into mobile facilities easily. All that is required is an AC outlet and a telephone plug/jack.

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500D

505DA

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200C Tape Eraser

Headphones

FULL NEWS CENTER

Telco 80

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4BEM50 Console

Speaker

300C Tape Eraser

Headphones

EXPANDED NEWS CENTER

Telco 80

605C/MRM-600

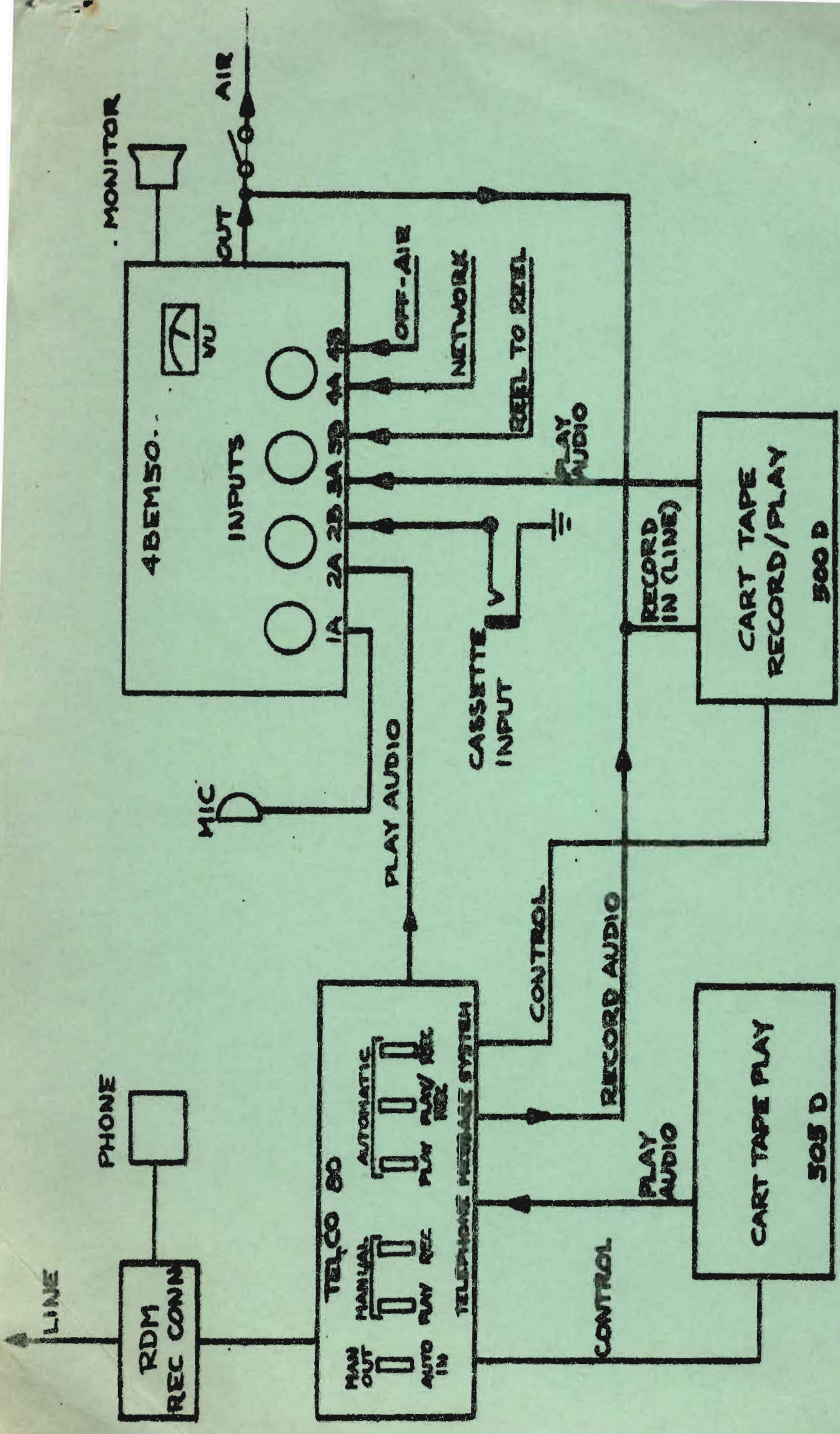
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BROADCAST ELECTRONICS, INC.
 - A FILMWAYS COMPANY -
TYPICAL SPOTMASTER
NEWS CENTER

APPROVED MIA 2/22/74 DRAWN TMS 2/22/74

March, 1974

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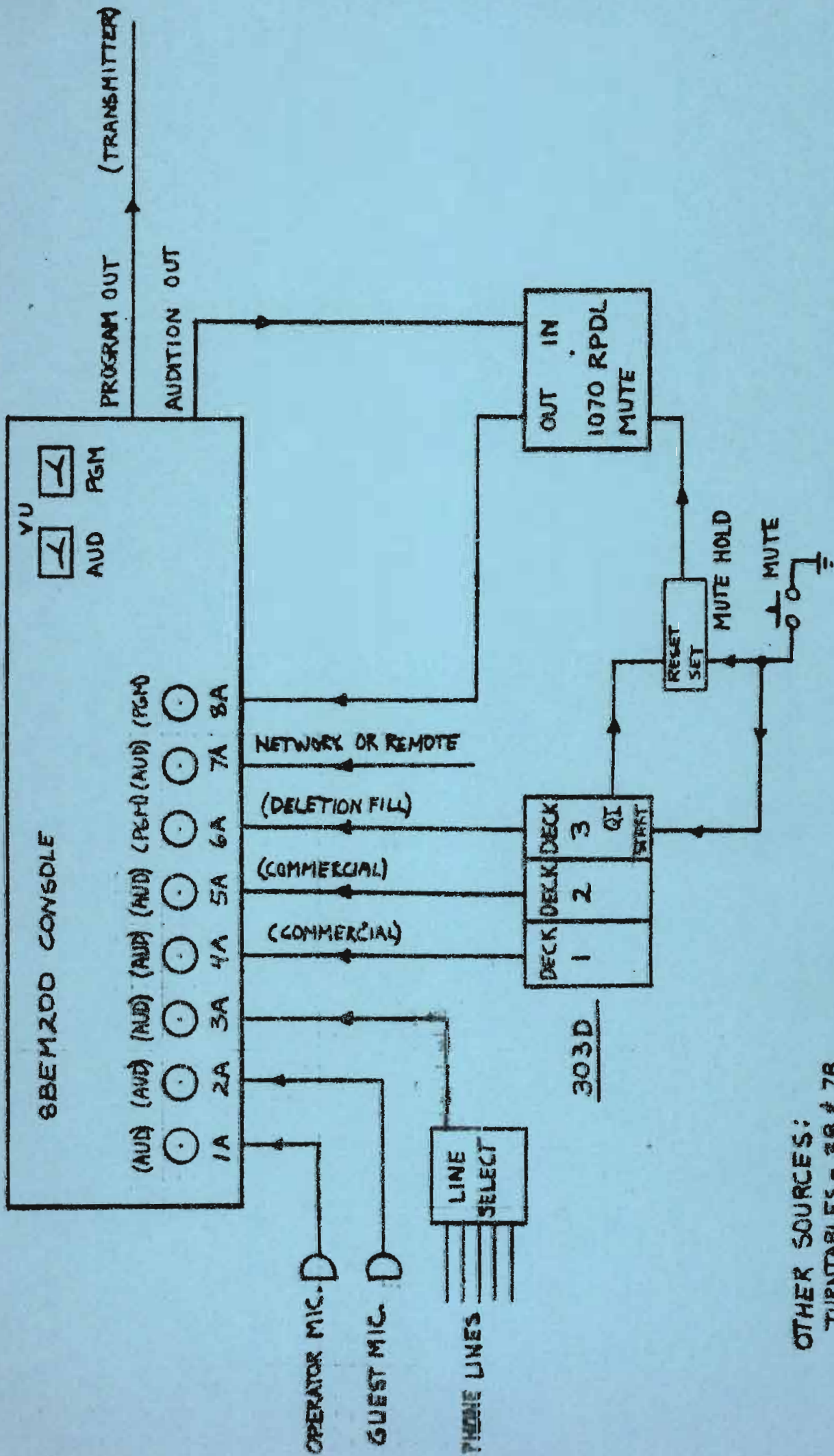
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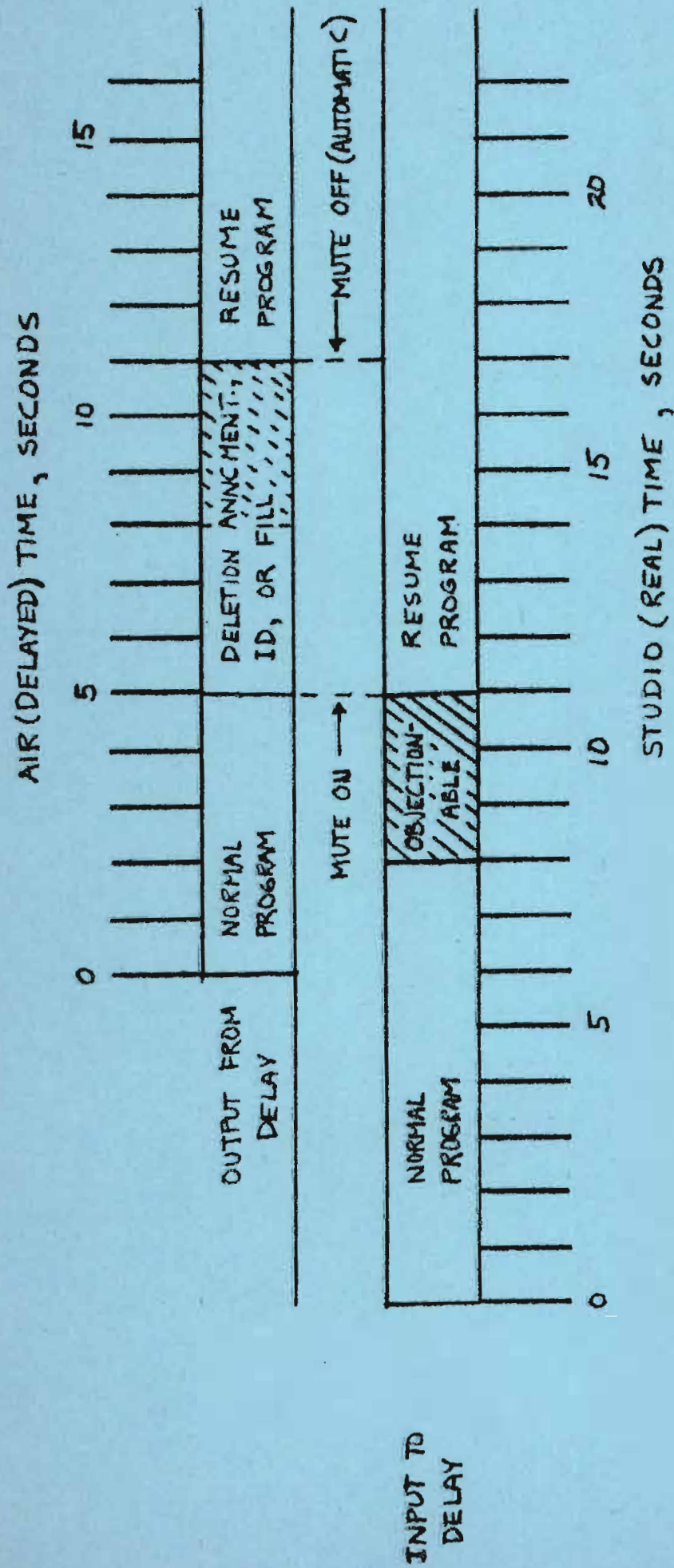
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 -A FILMWAYS COMPANY-
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 (FIGURE I)

DRAWN MIA 2-24-74



BROADCAST ELECTRONICS, INC.
 - A FILMWAYS COMPANY -
 DELAY OPERATION TIMING
 (FIGURE II)

DRAWN HIA R. 2/25/54

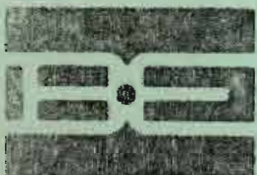
March, 1974

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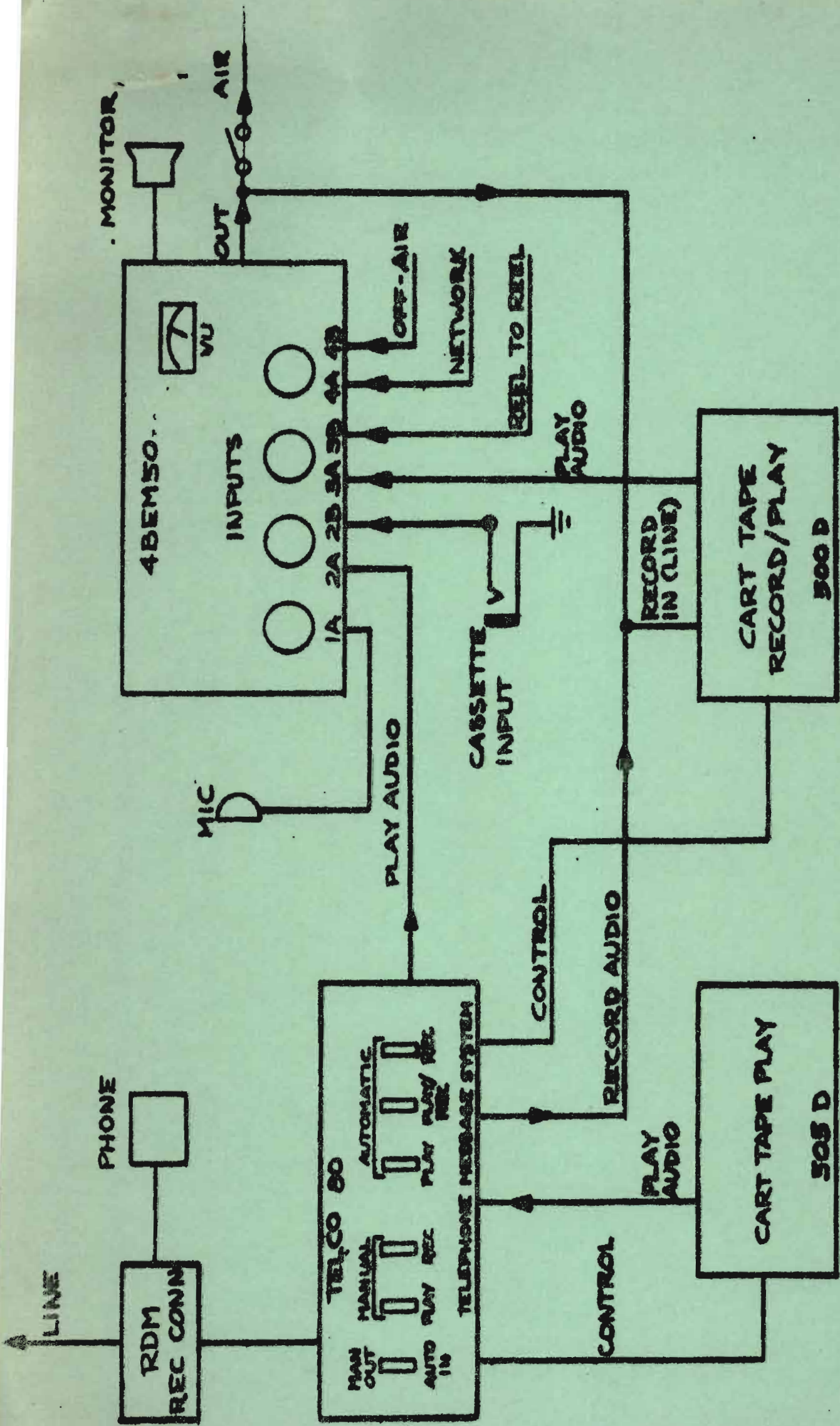
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BROADCAST ELECTRONICS, INC.
 - A FILMWAYS COMPANY -
 TYPICAL SPOTMASTER
 NEWS CENTER

APPROVED MID 2/12/74 DRAWN TJSB 2/22/74

February 4, 1974

NEW PRODUCT RELEASE

SUBJECT: SPOTMASTER[®] TURNTABLE PRE-AMPLIFIER, Model BE TMS-100 AND BE TMS-200

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.

Output level: Switchable -10, 0 and +8dBm
Output Impedance: Model BE TMS-100, nominal 600 ohm
Model BE TMS-200, 600 ohm transformer (coupled)
Signal to Noise: -60dB @ 0dBm output
Frequency Response: ± 2 dB, 30 Hz to 15 KHz (RIAA) NAB
Gain: 54dB @ 1 KHz
Distortion: Less than 0.5% @ +8dBm
Channel Separation: Better than 50dB
Input Level: 5MV sensitivity for +8dBm output
Input Impedance: 47K



8810 BROOKVILLE ROAD ■ SILVER SPRING, MARYLAND 20910 ■ PHONE 301-588-4983 ■ CABLE "SPOTMASTER"

TWX 710-825-0432

March, 1974

AUTOMATION SIMPLIFIED

Almost every broadcast manager has considered audio automation at one time or another. The advantages are well known--

- Increased employee utilization and efficiency. The "on-the-air" operator has more time for duties such as proper logging, sales, public relations, etc.
- Better management control over format and program content.
- Consistent "sound" or quality between operators.

And yet, audio broadcast automation is far from universal. Many stations simply can not overcome the high initial cost of a fully automated package system. Others object to the impersonal nature and inflexibility of such a system. Many who could afford automation do not want to be the first in their market to make the investment, in both equipment and qualified operators.

SPOTMASTER has pioneered an approach that allows the broadcaster to "automate" only as much as he wants to, and can afford to, without saddling himself with a lot of useless equipment if the situation changes. The SPOTMASTER approach is based on the tape cartridge, and all of its advantages--

- Ease of handling, operation, and storage. No threading, cuing, or record jackets.
- High usage and long life. A record is normally worn out after a few dozen airings; cartridges last for thousands. Saves record replacement costs and maintains quality.
- True random selection. Cartridges can be played in any order, while reel-to-reel playing order is fixed.
- Cuing functions without program interference. Pre-roll, audio cancel, and even cue-track automatic logging can be accomplished easily without filtering or crosstalk to the program material.

All of these advantages also apply to manual operation of cartridge equipment. And cartridge equipment is rapidly becoming a main component of full automation systems. No matter which way a broadcaster chooses to go, his investment in cartridge tape equipment is never wasted.

The "automation" of the cartridge equipment involves using the cue track capabilities and the remote control and indication facili-



ties 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, etc. This simple system involves only wiring from one remote control to another (See Figure 1).

The addition of one d.p.d.t. switch per deck allows any deck to be deleted from the sequence. The QI pulse from the preceding deck is switched directly to the start control of the following deck. This is the basic principle of the ESD-15 Sequencer. The ESD-15 is designed to operate 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. In the open loop mode, the alarm contacts are closed as the second-to-last deck is started. This allows the operator time to reload the machines or prepare for his next function. The sequencer stops at the last deck. In the closed loop mode, the last deck starts the first without any alarms. (See Figure 2).

Both of these systems allow for total operator absence. In many cases, however, some operator interaction (such as live tags on commercials) is desirable. This interruption of the sequence can be done automatically. One method (Figure 3) requires that the operator preset a "tag" switch for each cartridge requiring a tag. When that cartridge is played, the QI pulse signals the operator but does not start the next deck. A memory device (flip-flop or SCR circuit) holds the location of the next deck to be started. When the operator finishes his tag, he pushes the restart button, and the next cartridge continues the sequence. If complete remote manual start is desired, the restart button can be eliminated, and the start button of the next deck in the sequence can be illuminated (Figure 4).

Audio control can also be part of the automation function. In many cases, this is already part of or an accessory to the cartridge equipment. The Mini-Series (303D and 305D) has the built-in capability of providing a single output (mono or stereo) 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. The same capability can be wired by station personnel into all the SPOTMASTER consoles with

FET switching. This can include, in the examples of Figures 3 and 4, turning on the announcer's microphone and muting the studio speakers when a tag is required!

If a place-marker, such as the "memories" of Figures 3 and 4, or a stepper relay (Figure 5) is used, the system can be made virtually fail-safe. A silence sensor could be wired so that if there was no audio for say 10 seconds, the next event in the sequence would be started and an alarm sounded. Although bulkier, requiring more power, and sometimes noisy, the stepper relay has the advantage of holding its place if power is lost. When cue-track logging is used, there is no possibility of missing an event and not knowing it.

Highly complex random automation systems can be put together, but require the ability to store a large number of events outside of the program cartridge equipment. Each "event" is the location or identification of a deck or source, usually in numerically coded form. Most large modern automation systems store these events in solid-state computer-type memories. It is possible, however, to store these events on tape cartridges! The programming for some time period can be listed, and a deck number or source for each item assigned. This list of numbers can be recorded on a cartridge using some tone encoding, such as Touch-Tone. The program material is then loaded for the time period required, and the programming tape started. A decoder starts the source called for and the program tape cues to the next event. The end of that segment starts the next programmed event and advances the programming tape. A simple counter keeps track of the event. The sequence can be interrupted (by an announcer, network news, a time clock related event, etc.) and can be instantly reprogrammed by changing the programming tape. The only hardware investment other than tape equipment is for a tone encoder-decoder and wiring (See Figure 6).

Automatic audio tape cartridge systems are limited only by the imagination and material resources of the system user and designer.

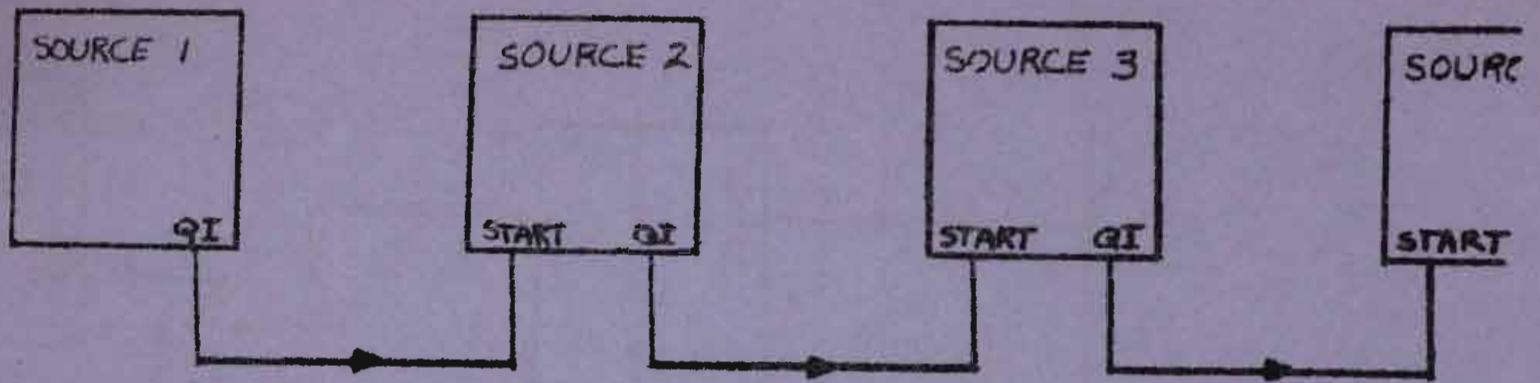


FIGURE 1
BASIC CHAIN SEQUENCER

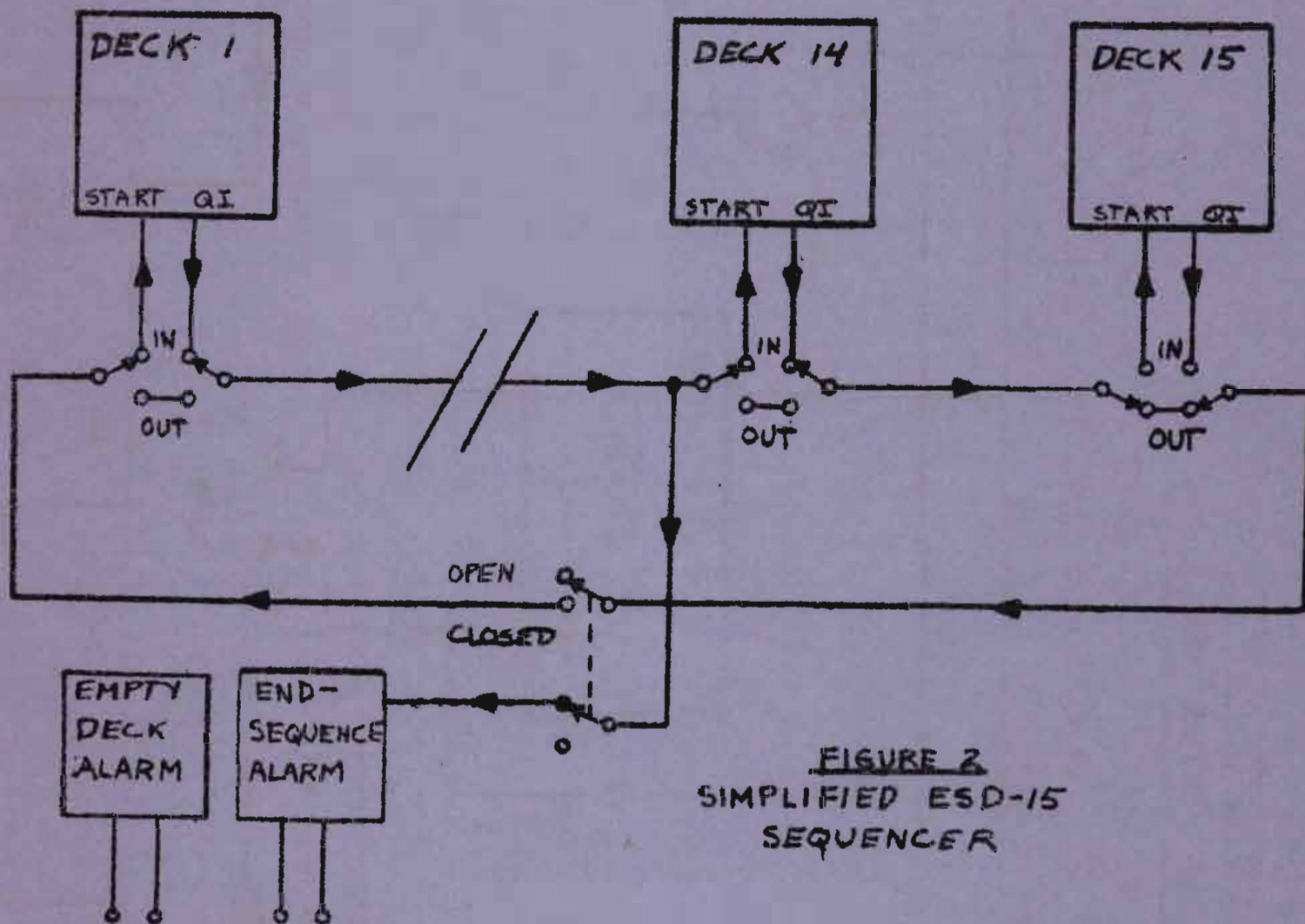
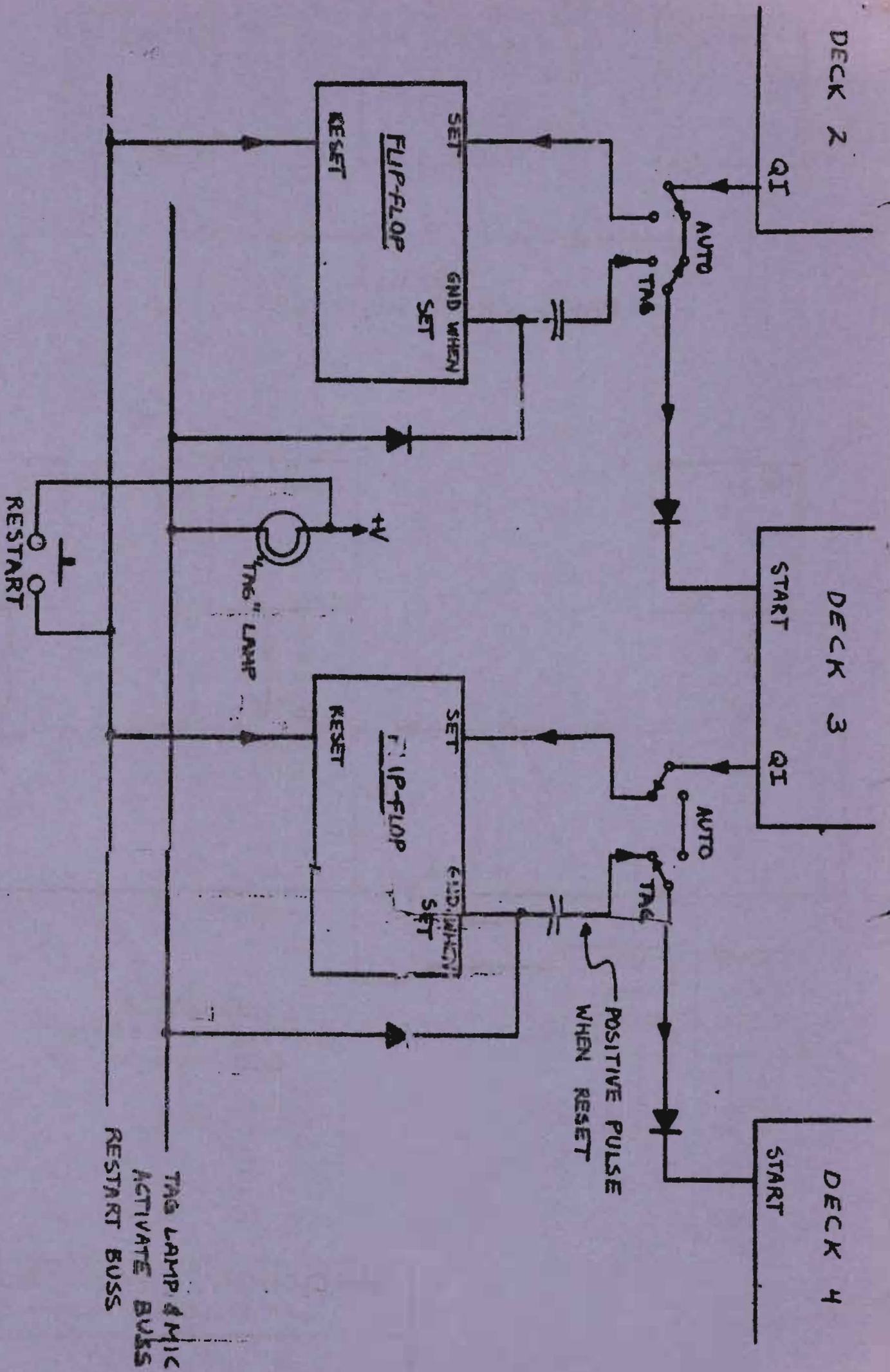


FIGURE 2
SIMPLIFIED ESD-15
SEQUENCER

BROADCAST ELECTRONICS, INC.
-A FILMWAYS COMPANY-

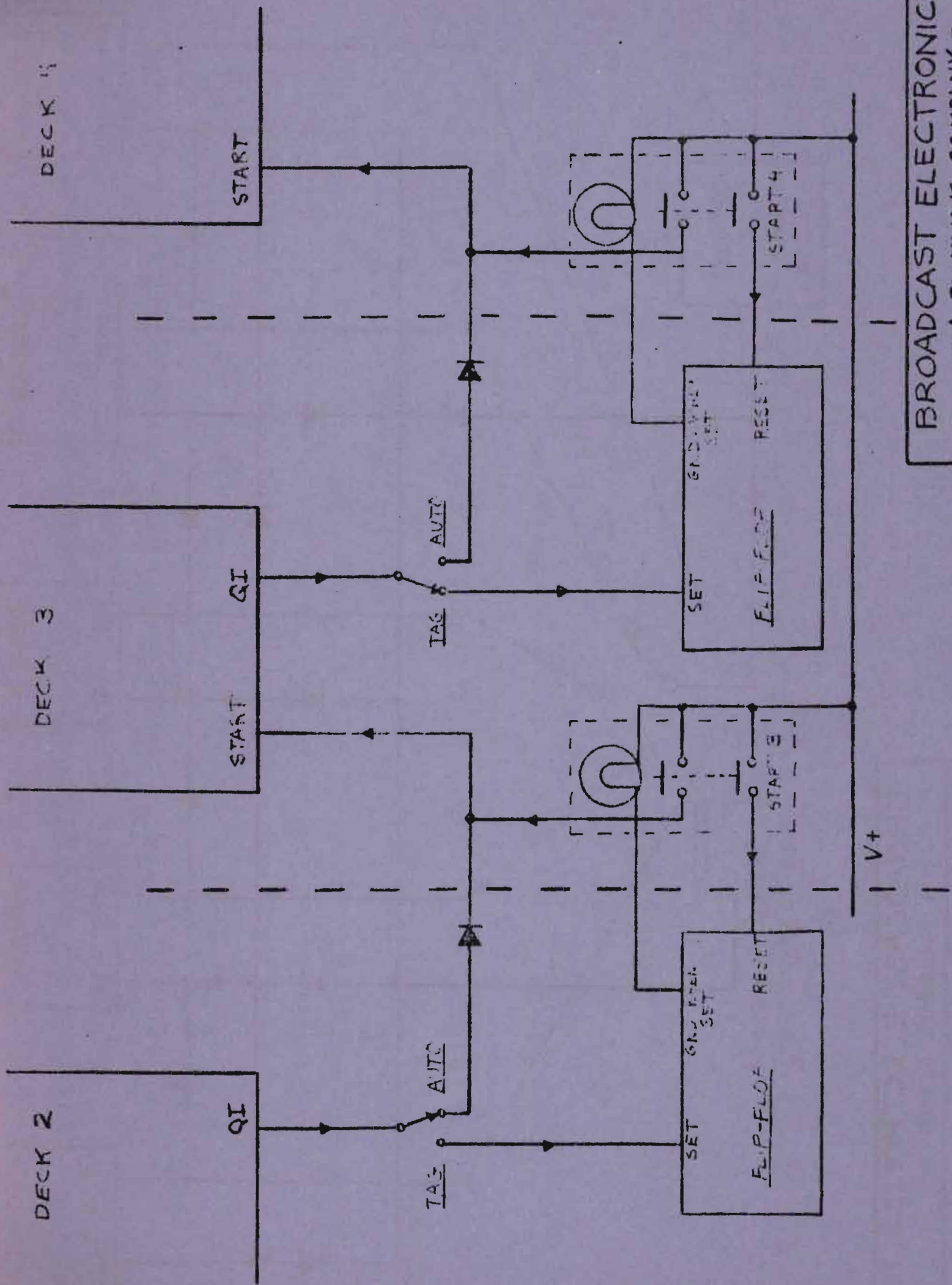
TYPICAL CHAIN SEQUENCERS
(FIGURES 1 & 2)

DRAWN 2-26-74 MIA



BROADCAST ELECTRONICS, INC
- A FILMWAYS COMPANY -
FIGURE 3
SIMPLIFIED INTERRUPT SEQUENCER
(SINGLE RESTART)

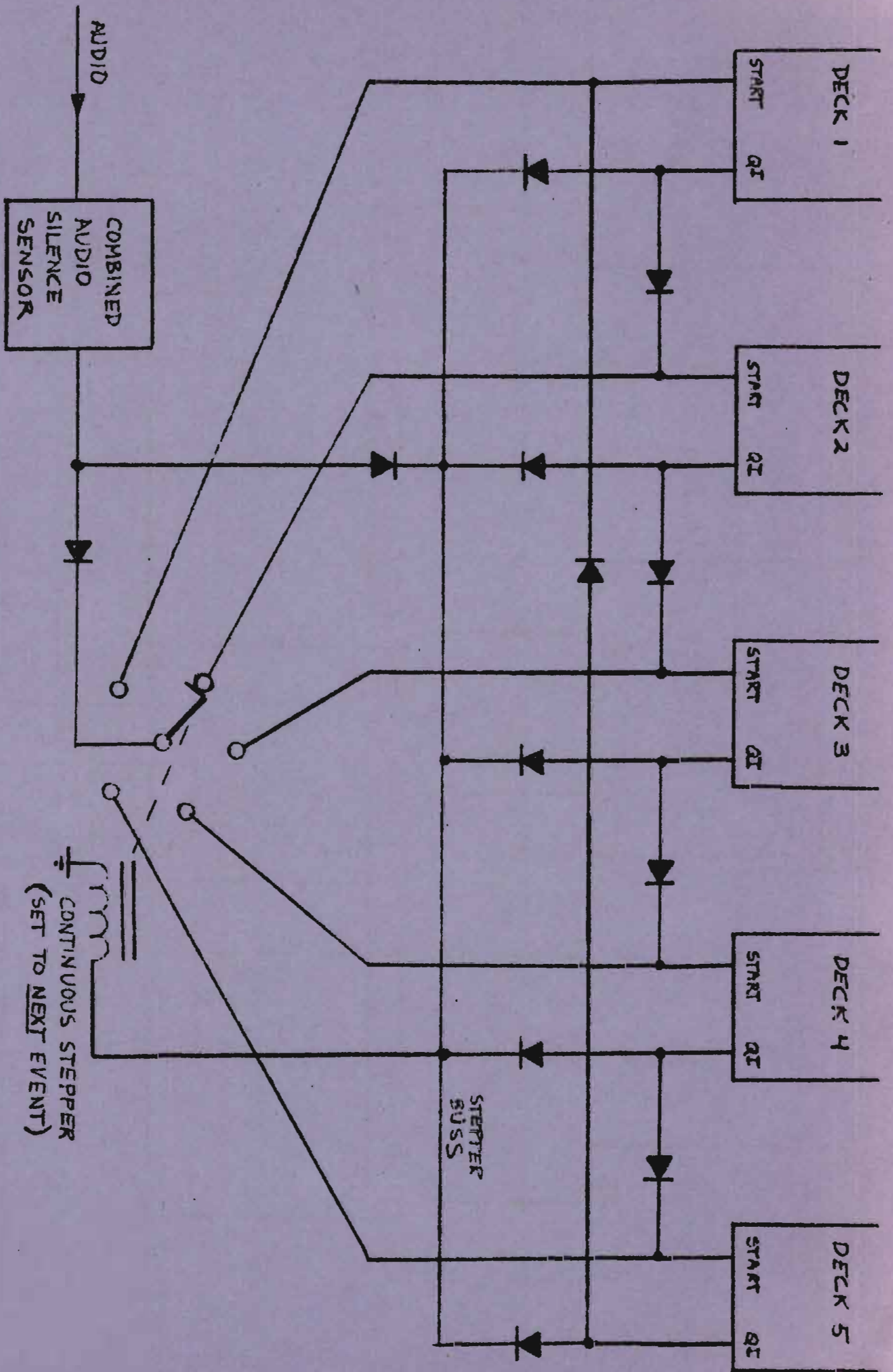
DRAWN MIA 2-25-74



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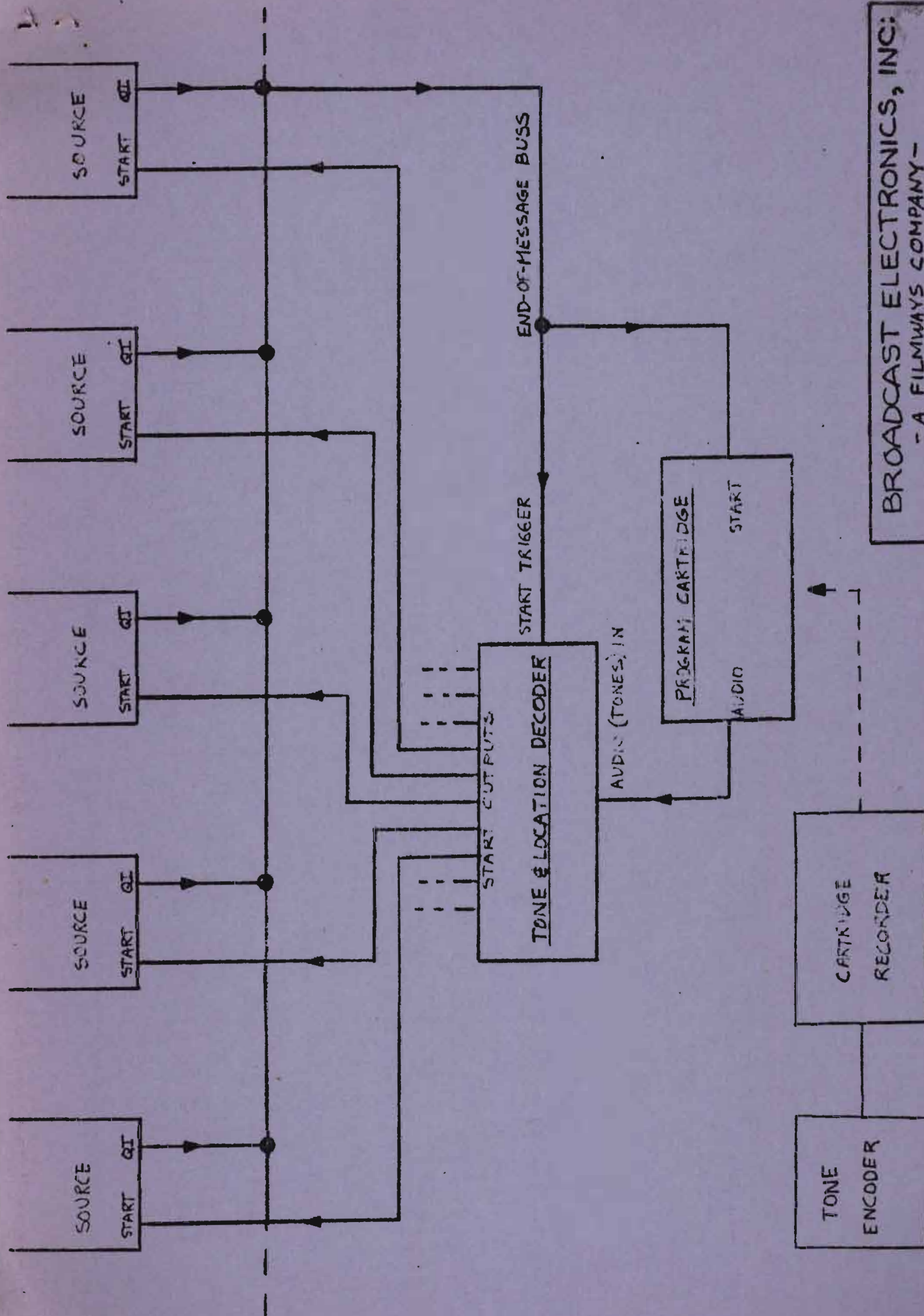
FIGURE 4
 SIMPLIFIED INTERRUPT SEQUENCER
 (MULTIPLE MANUAL STARTS)

DRAWN MIA 2-25-74



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 - A FILMWAYS COMPANY -
 FIGURE 5
 TYPICAL "FAIL-SAFE" SEQUENCER

DRAWN MIA 2-26-74



BROADCAST ELECTRONICS, INC.
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FIGURE 6
 CARTRIDGE PROGRAMMED AUTOMATION

DRAWN MIA 3-26-74

March, 1974

NEW PRODUCT RELEASE

SUBJECT: SPOTMASTER[®] Sound Britener, Model GLE-500 Compressor/Limiter/Expander

As a result of continuing efforts toward helping the broadcaster up-grade his sound, as well as to technically and economically simplify his operations, SPOTMASTER[®] has done it again.

Through uniqueness in combining of a number of existing circuit technologies, along with unique new circuit applications, all in one small package, SPOTMASTER[®] engineering expertise has developed the SOUND BRITENER, an electronic marvel for maintaining a bright, crisp and consistent sound.

One package provides optimum level for maximum modulation power and coverage without danger of over-modulation. Yet the signal processing is smooth and quiet without pumping, sucking of background noise, or distortion.

Through creation of automatic and self-controlling functions, the SPOTMASTER[®] SOUND BRITENER eliminates the need for several companion units, as in some sound improvement systems, at the same time simplifying a maze of controls into three.

The SPOTMASTER[®] SOUND BRITENER combines all characteristics of traditional gated automatic gain control amplifiers and fast acting peak limiters.

Simplicity of operation is found in three controls:

- Input Level Control accepts normal program levels over a 50 dB range
- Output Level Control can be set to match any 600 ohm transmitter or line



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--Third control is secret of simplicity, allowing user to set desired "tightness", peak-to-average

All controls are recessed behind safety cover on 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 unit to maintain average output at required level. In the event input signal falls more than 20 dB below normal program level, the SOUND BRITENER will expand gain only to previous average level, then hold that gain. 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.

The SPOTMASTER[®] SOUND BRITENER is a simple, practical, and yet sophisticated, answer to what has been a complex, evasive problem, especially for the smoothing out of the sounds in widely ranging program formats.

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

March, 1974

SPOTMASTER BEA-400 MOD-AMP

Modular Amplifier Series

In amplifiers, the broadcaster needs versatility, ruggedness, serviceability, and small size.

SPOTMASTER engineering expertise has developed the MOD-AMP, a modular amplifier package, in a 3½-inch rack space. Each MOD-AMP will accept up to four plug-in amplifier modules.

The basic unit has an extra-rugged welded steel construction. It contains the heavy-duty power supply, and connecting wiring and terminals for the four modules. The modules may be line amplifiers, ten-watt power amplifiers, or preamplifiers. Any module can be used in any of the four sockets.

The plug-in modules are inserted from the front of the rack, and can be operated outside of the unit on an extender card for servicing. All controls are front mounted. Modules and controls are protected from tampering, however, by an attractive cover panel.

Input, output, and remote control connections are made through screw-terminal barrier strips on the rear panel.

LINE AMPLIFIER MODULE - BELM-100

The BELM-100 is a balanced-in, balanced-out variable gain line amplifier. It is ideal for all phone line or other remote applications. It functions equally well as a line receiver or line driver. One MOD-AMP can economically provide proper termination and amplification for as many as four remote or network lines. Inputs or outputs can easily be resistively bridged together to provide fan-in single output line receivers or multiple output distribution amplifiers. Gain and phase stability of these modules are good enough to provide perfect stereophonic or quadriphonic amplification. The gain for each channel can be precisely set to overcome varying line losses.



BELM-100 Specifications:

Input: 600 ohm transformer balanced
Output: 600 ohm transformer balanced
Gain: 35 db maximum, adjustable from total off
Frequency Response: ± 0.5 db from 20 Hz. to 20 KHz., @ +18 dbm output
Distortion: 0.5% or less Harmonic distortion @ +18 dbm output
Noise: At least 70 db below +8 dbm output (-25 dbm input)
Maximum Output Level: +20 dbm

POWER AMPLIFIER MODULE - BEPM-200

The BEPM-200 module provides a solid ten watts (RMS) of clean audio power to 8 or 16 ohm speaker systems. The module's 40 db power gain and 600 ohm transformer balanced input allow it to be used directly from a phone line for monitoring, or the module can be connected together (see illustration) to provide up to 150 balanced 600 ohm outputs.

The power supply of the MOD-AMP can easily handle four power amplifier modules at rated output without crosstalk. Muting of each amplifier is accomplished with quiet, low power consumption, and distortion-free FET switching. Muting can be done individually or can be controlled by a single contact. Only a low current (0.1 mA typical) ground contact is required for muting.

One MOD-AMP unit can provide four separate mono, or two stereo, or one 4-channel monitor systems.

BEPM-200 Specifications:

Input: 600 ohm transformer balanced
Input Sensitivity: 0 dbm to provide 10 watt output at full gain
Muting: FET switching, ground activated
Frequency Response: ± 0.5 db from 20 Hz. to 20 KHz., rated power, resistive load
Distortion: Less than 1.0% Harmonic distortion at rated power, 8 ohm load
Output: 10 watts, RMS into 8 or 16 ohms. Slightly less than 4 ohms

TYPICAL APPLICATIONS

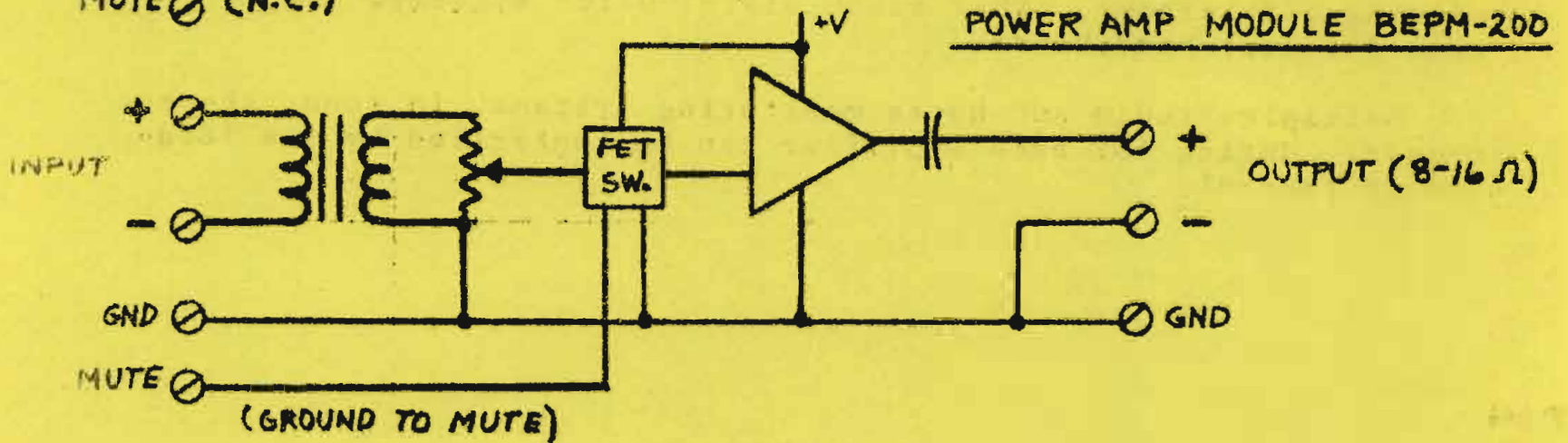
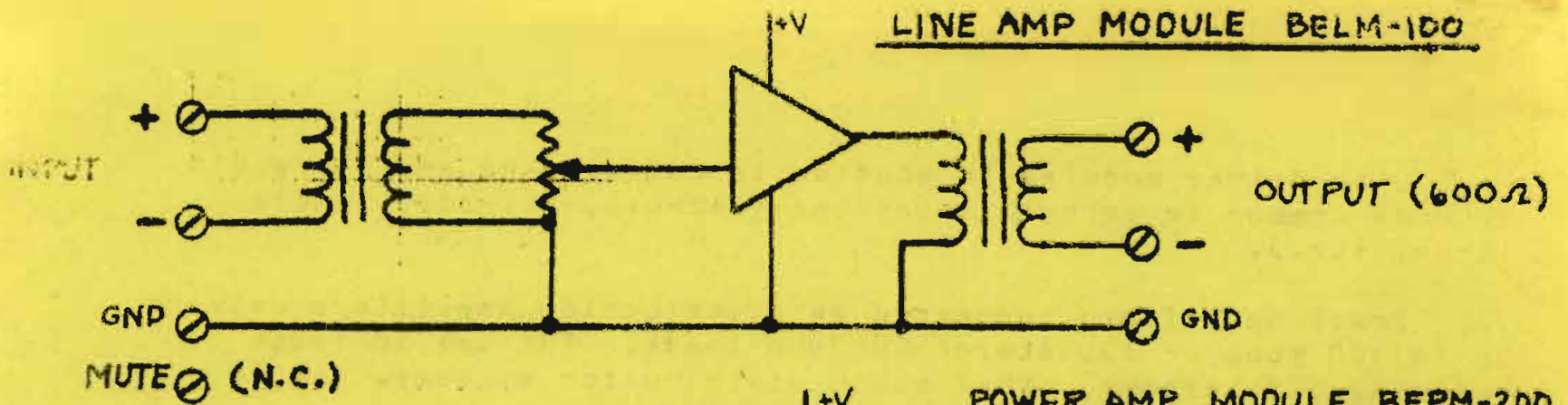
A MOD-AMP at a remote transmitter location with line amp modules out of the phone lines and power amp modules for on-site monitoring, either off-line or off-air. Mono or Stereo in one unit.

Studio monitoring and transmitter feed, mono or stereo.

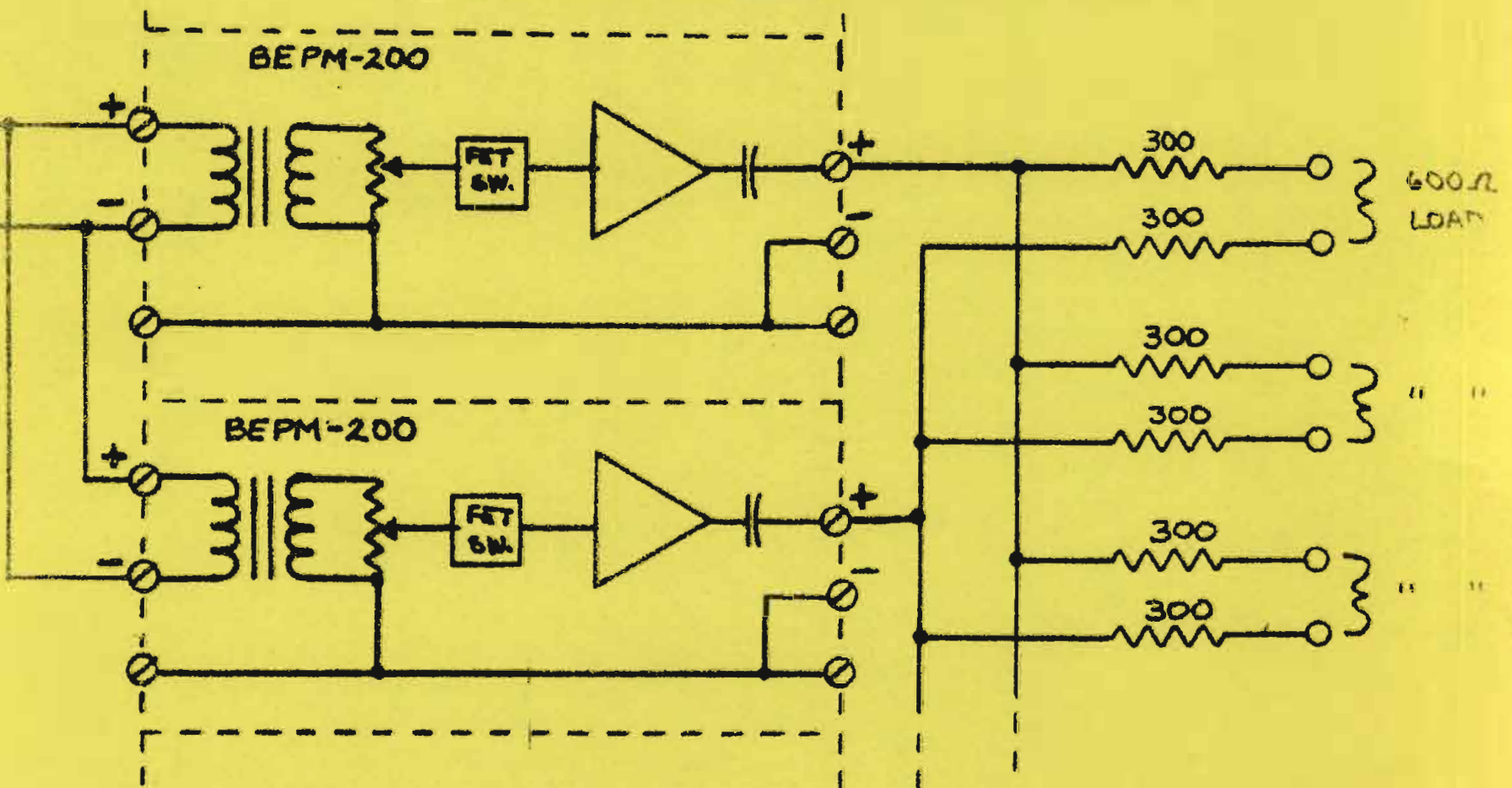
Line driver modules in studios to isolate and amplify audio sources common to several locations (network, off-air, remote lines, etc.).

Power amplifiers connected as distribution amplifiers driving up to 300 mono or 150 stereo 600 ohm loads. For use in large buildings, intercoms, other sound distribution systems. Ample level for most headphones.

Multiple-studio and house monitoring systems, in mono, stereo, or quad. Muting for each amplifier can be controlled by one location or several.



TYPICAL APPLICATION - DISTRIBUTION AMP



DISTRIBUTION AMP

UP TO 150 OUTPUTS (MATCHED, BALANCED)

+21 dBm MAXIMUM EACH OUTPUT

62 dB MINIMUM ISOLATION BETWEEN OUTPUTS.

BROADCAST ELECTRONICS, INC.
- A FILMWAYS COMPANY -

June, 1974

SPOTMASTER[®] NEWS CENTERS

The SPOTMASTER[®] NEWS CENTERS are special groupings of equipment for gathering and disseminating information with the telephone. These systems are applicable to radio and television newsrooms, newspapers, public information offices, news bureaus, or other facilities requiring a two-way exchange of information over the telephone.

The packages presented here all include a telephone/cartridge machine interface (Model TELCO 80) for use with the Western Electric RDM/RDL Voice Connecting Arrangement (a recorder connector supplied by the telephone company), a cartridge reproducer, and a cartridge record unit.

The TELCO 80 provides the control for the two cartridge machines when recording or playing back recorded material to the phone line. Additionally, this device provides an output to use the cartridge machines with some device other than the telephone-- a PA system, audio console, etc.

The TELCO 80 allows 5 modes of operation:

- Automatic playing of a pre-recorded message and then recording a message from the caller.
- Automatic recording of a message from a caller.
- Manual reproduction or recording of a message.
- Automatic playback of two pre-recorded messages in sequence.
- Manual playback of two pre-recorded messages.

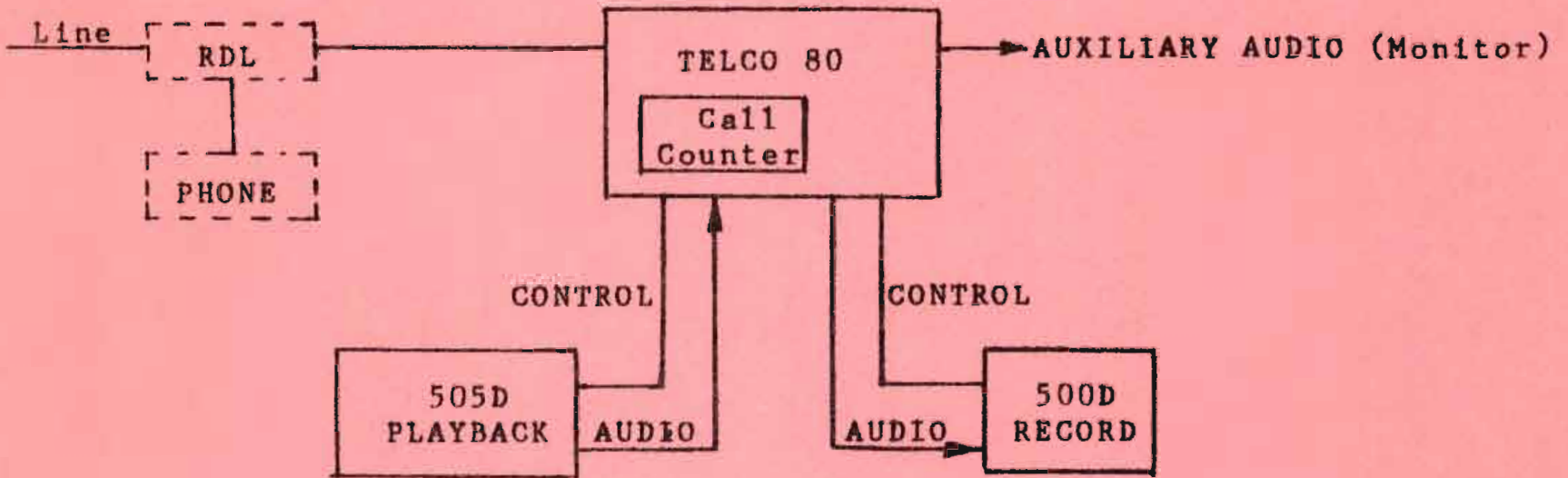
These operating modes are selected by controls on the TELCO 80 and may be changed as desired. A counter is built-in to automatically tally the number of operations performed. In the manual mode, there is no interference with the telephone. The equipment may be connected to a phone for part-time or full-time use. In fact, the equipment can be moved to any telephone equipped with the RDM/RDL recorder connector.

MINI NEWSCENTER #1

This system includes the basic equipment for two-way information exchange with the telephone.



MINI NEWSCENTER #1



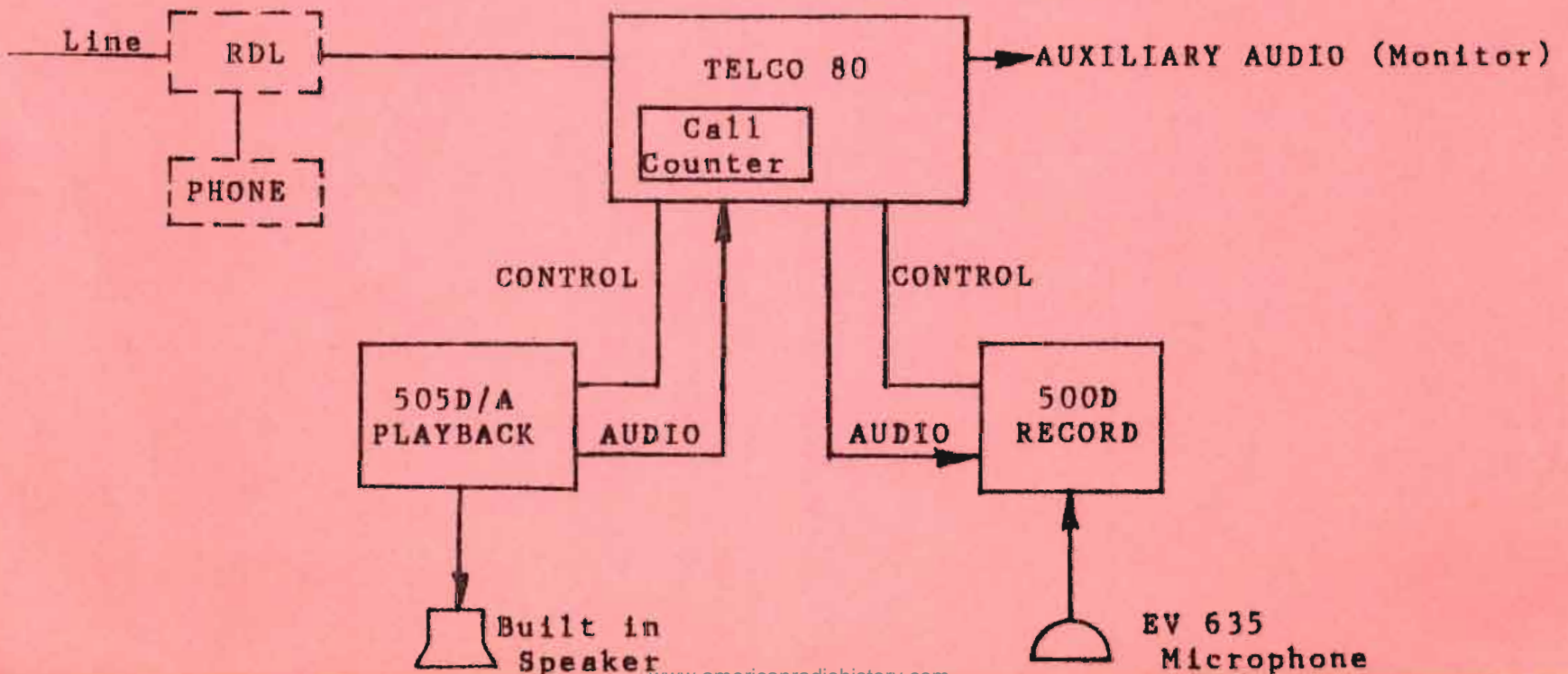
Mini Newscenter #1 Package - 960-0000

- 1 TELCO 80 Telephone Interface
- 1 500D Cartridge record/playback unit with proper cabling and wiring
- 1 505D Cartridge playback unit

MINI NEWSCENTER #2

The same as the Mini Newscenter #1, but intended for the installation where no cartridge facilities are presently in use. No additional equipment is required.

MINI NEWSCENTER #2

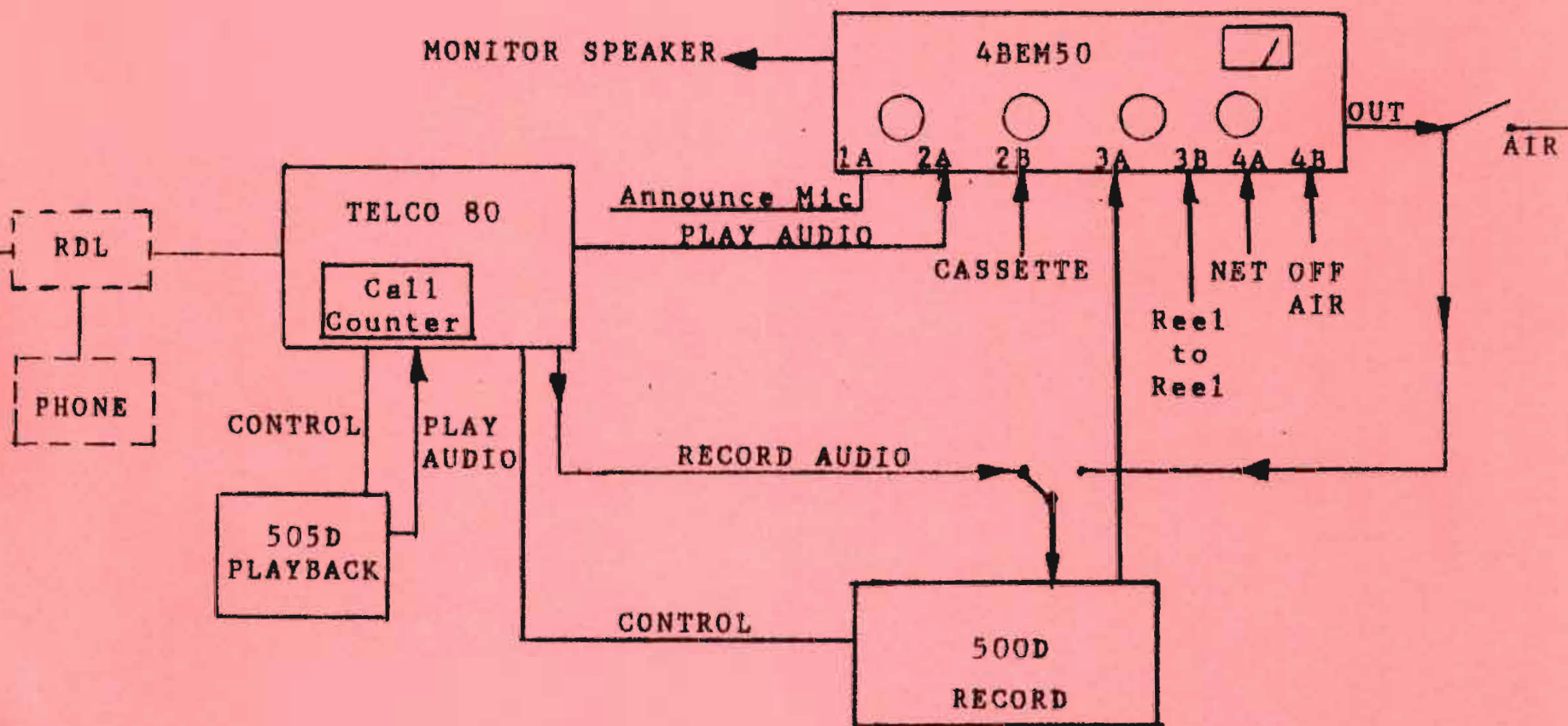


- Mini Newscenter #2 Package - 960-0001
- 1 TELCO 80 Telephone Interface
 - 1 500D Cartridge record/playback unit for Newscenter
 - 1 505D/A Cartridge playback unit with built-in monitor speaker
 - 1 Electrovoice 635A microphone with desk stand
 - 1 Hand held cartridge eraser
 - 10 Cartridges (specify desired message length)

FULL NEWSCENTER

The Full Newscenter includes an audio console for use where additional audio sources are handled. The console will accept 6 other inputs besides the two cartridge units operated with the TELCO 80. While shown as line sources below, all six may be microphones if desired.

FULL NEWSCENTER



- Full Newscenter Package - 960-0002
- 1 TELCO 80 Telephone Interface
 - 1 500D Cartridge record/playback unit for Newscenter
 - 1 505D Cartridge playback unit for Newscenter
 - 1 4BEM50 Audio Console with internal monitor amplifier

EXPANDED NEWSCENTER

The Expanded Newscenter is specifically intended for broadcast installations where news programs are produced and aired from the newsroom. A total of four cartridge playback decks are provided. A fifth deck is available, when recording is not necessary, by removing the record module from the 605C. (See attached diagram)

Expanded Newscenter Package - 960-0003
1 TELCO 80 Telephone Interface
1 605C Multiple Cartridge reproducer with MRM-600 record module
1 4BEM50 Audio Console with monitor amplifier

RACK MOUNT EXPANDED NEWSCENTER

Offers the same equipment as the Expanded Newscenter above except that the 605C and 4BEM50 console are both equipped for mounting in a standard EIA 19-inch wide rack or cabinet.

Rack Mount Expanded Newscenter Package - 960-0004

PRICING AND TECHNICAL ASSISTANCE

For prices of any Newscenter package, contact Broadcast Electronics or your SPOTMASTER[®] representative.

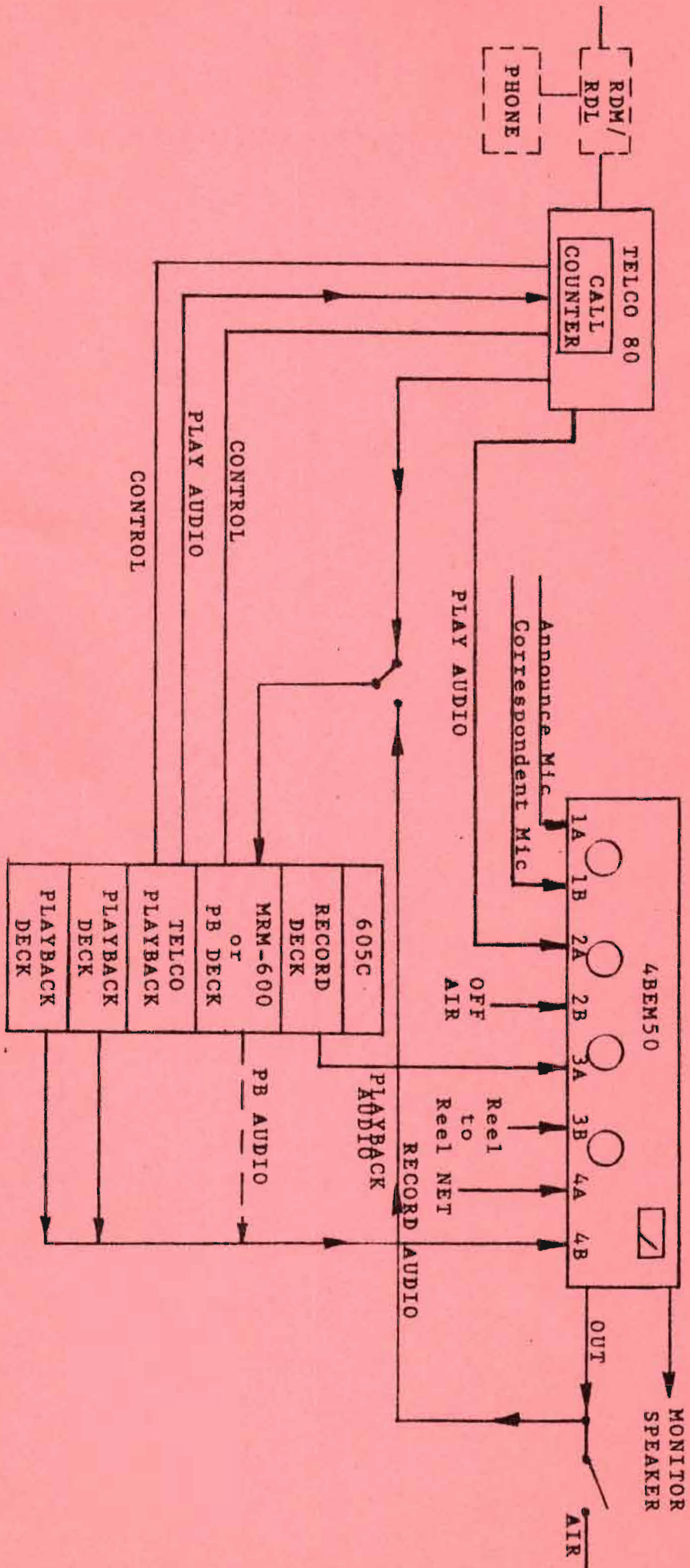
For further technical information or assistance in planning your own Newscenter, contact the Engineering Department of Broadcast Electronics.

OPTIONAL ACCESSARIES

These items are suitable for use with the Newscenters described above:

BETM-200 Tape Cartridge winder with timer for loading custom length cartridges
200C Hand held cartridge eraser
300C table model cartridge eraser
DM-20 wall or table mount storage rack for 20 cartridges
Desk for Newscenter: 80" x 24" x 29" high table surface in French Blue FORMICA with chrome legs
Electro-Voice 635A microphone with desk stand

EXPANDED NEWSCENTER



NOTE: PLAYBACK DECK MAY REPLACE MRM-600 RECORD ELECTRONICS MODULE WHEN RECORD FEATURE NOT NEEDED

Spotmaster

Equipment Price List (Domestic U.S.)

EFFECTIVE SEPTEMBER 1, 1974

REVISED DECEMBER 15, 1974

ADDENDA

NEW SERIES 2000 - ACCESSORIES

<u>Stock No.</u>	<u>Model and Description</u>	<u>Price</u>	<u>Code</u>
906-2015	TELCO IVB Telephone Answering Accessory for SERIES 2000	\$125.00	C
906-2016	TELCO IVC Telephone Answering Accessory with Manual/Automatic Switch and Remote Start for SERIES 2000	\$139.00	C



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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.



Table of Contents

Cartridge Recorders and Reproducers	1-12	Turntables, Amplifiers and Audio Accessories	29-33
TEN/70 Series	1,2	BE TMS-100/200 Pre-Amplifiers	29
THREE/70 Series	3	Turntables and Tone Arms	29
400 Series	4	CLE-500 Sound Britener	30
500 Series	5,6	BEA-400 Modular Amplifier	31
305D Multideck	7,8	MA-10 Monitor Amplifier	31
303D Multideck	9,10	PLA-20 Program/Line Amplifier	31
TEN SPOT and FIVE SPOT Multideck	11	AD1B Audio Distribution Amplifier	32
610CX Automatic Audio System	12	CLA-20-40 Compressor-Limiter Amplifier	32
Cartridge Accessories	13-16	Revox Model A77 Broadcast Recorder	33
Splice Detector and Cartridge Eraser	13	Studio Equipment and Accessories	34-36
Maintenance Supplies	13	Control Room Furniture	34,35
News Bureau Audition Unit	14	Studio Accessories	36
BETM-100 Cartridge Winder	14	Telephone Answering Interface Systems	37,38
Cartridge Storage Units	15	Systems Packages	39,40
Cartridge Accessories	16	Mini Automation Systems	39
Audio Consoles	17-28	Audio Delay Systems	39
50 Series Mono	17,18	News Center	40
100 Series Mono	19,20		
200 Series Mono	21,22		
100 Series Stereo	23,24		
200 Series Stereo	25,26		
Slide Type Modular Console	27,28		



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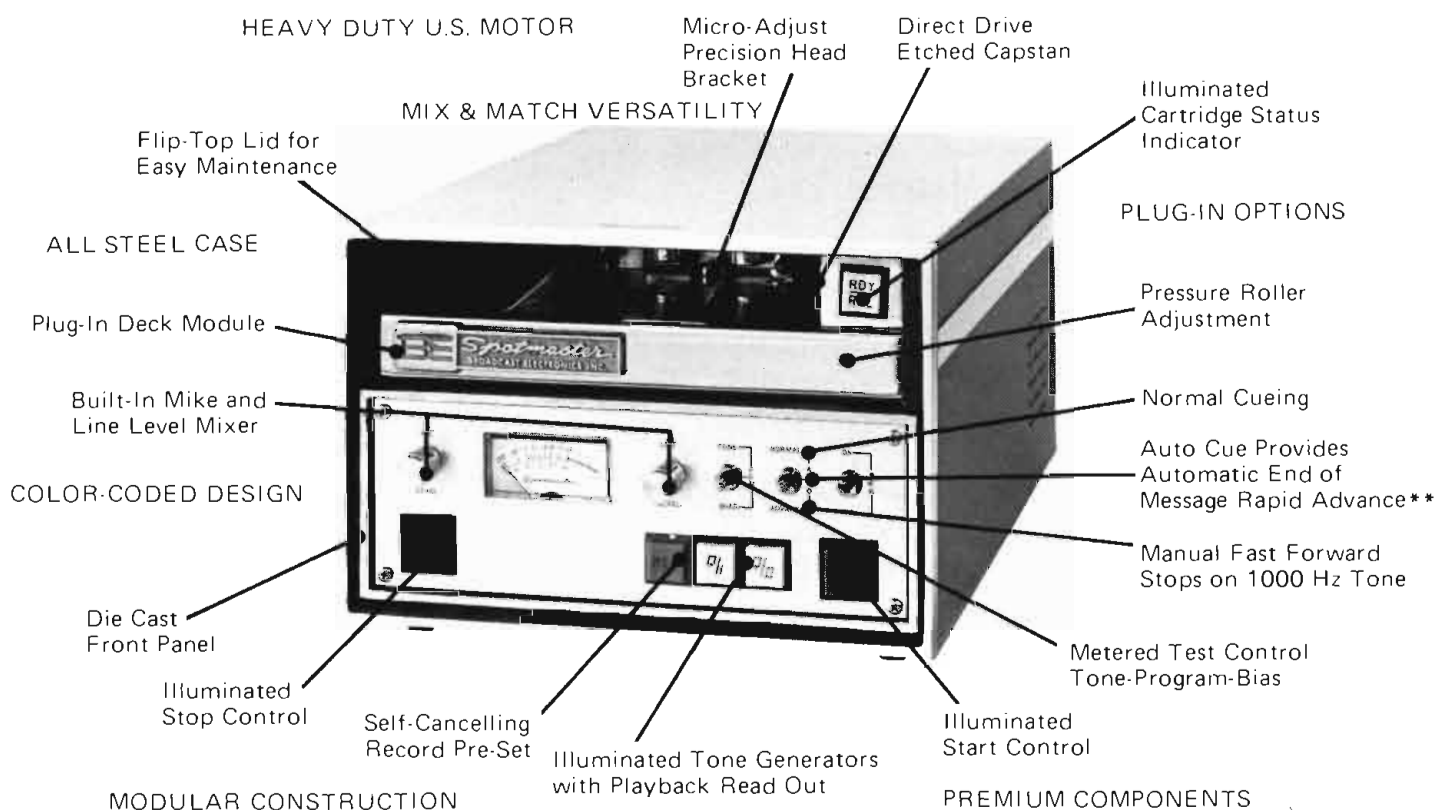
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CABLE "SPOTMASTER"

Spotmaster®

TEN/70 SERIES

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	Cueing Accuracy:	0.1 Second
Frequency Response:	50-15,000 Hz ± 2 dB 30-18,000 Hz ± 4 dB	Capacity:	Size A or B NAB Standard Cartridge
Distortion:	1% or Less @ OVU (400 Hz)	*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).
Signal to Noise:	-57 dB or better	Power Requirement:	117 V/60 Hz, 50 Watts 220-240 V/50 Hz (Optional)
Wow & Flutter:	Less than 0.2% RMS (NAB unweighted)	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
Cross Talk:	Cue/Program -55 dB or better	Size:	5-3/8" H, 8-1/2" W, 12" D
Output:	-10 dBm/0 dBm/+8 dBm Switchable Adjustable 10 dBm each position. Peak output +18dBm.	Shipping Weight:	15 lbs.
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		

*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

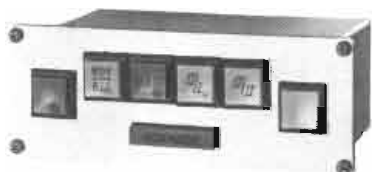
Here's where Ten/70 leaves the others behind. Take any two units, add our exclusive rack panel adaptor and you have a pair ready for instant rack-mounting. No cutting, drilling or expensive modification. Chassis rolls out for easy service and you can add or remove a unit instantly.



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



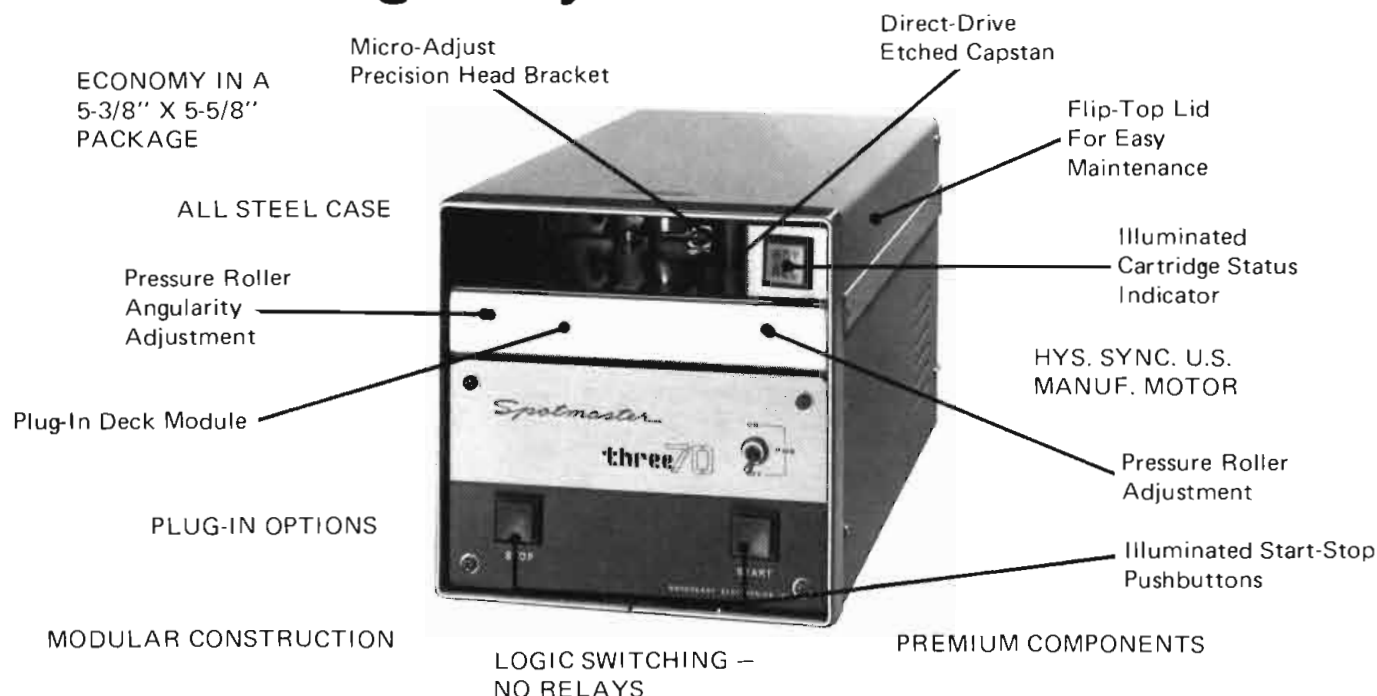
Remote control available for complete external control of all functions. Suitable for mounting in console desk cut-out or in blank rack panel. Measures 2.25" high x 4" deep x 5.5" wide. Mating 24-pin connector furnished and we will fabricate pre-wired cabling to length.

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.

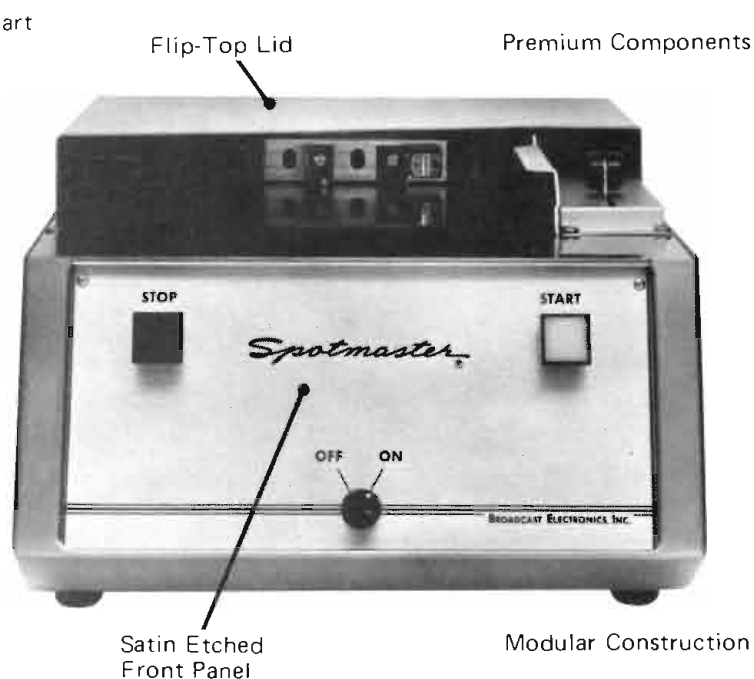
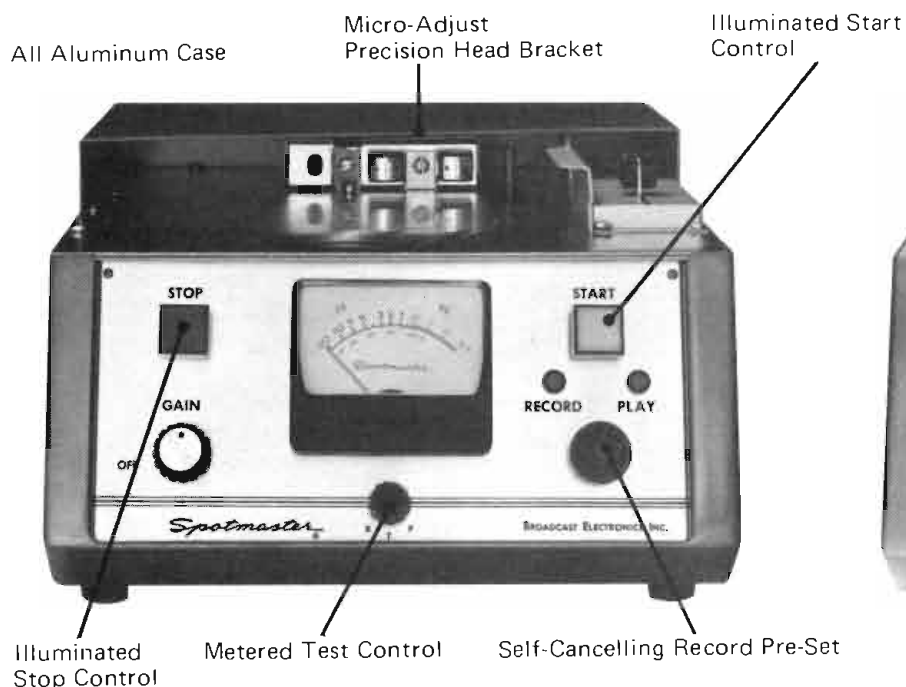
Optional Accessories

CUE TRIP^I AMPLIFIER (150 Hz)
CUE TRIP^I 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

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

The Spotmaster 505 D

Companion Playback Unit

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.

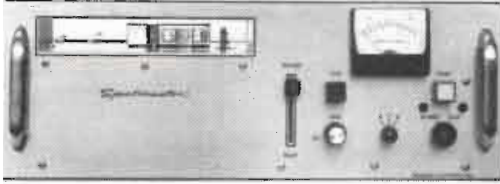
*Applies to Model 500 combination Record/Play units only.

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



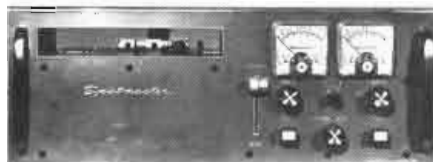
Here's the 500CRDL offering the versatility of delayed programming in the 500 series rack-mounted chassis . . . Instant front panel access to muting and conversion controls . . . A unit built to be your station's work horse at a common sense price.

Model 500 CS Recorder/Playback/Stereo



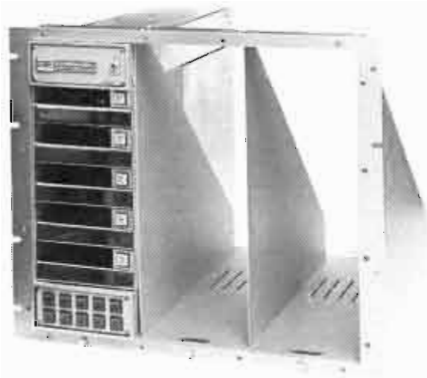
For the stereo-minded station here's familiar SPOTMASTER compact styling . . . Big enough to do the job . . . small enough to fit just about any situation . . . Two large easy-to-monitor VU meters and dual channel gain controls add to the feature-packed front panel . . . 22 lbs. . . Playback stereo only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

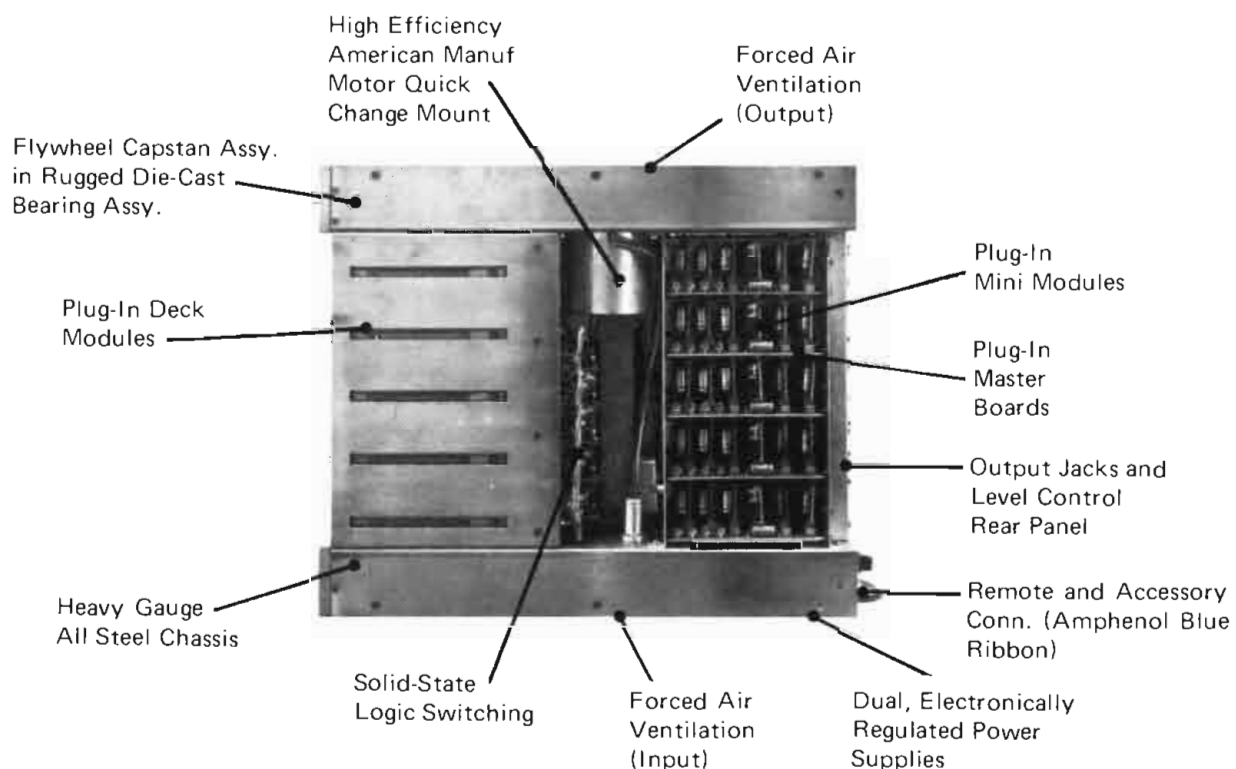


RA 35
Rack Panel Adapter

- 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: $\pm 0.4\%$ or better.
Wow & Flutter: 0.2% or better @ 7½ IPS
 0.25% or better @ 3¾ IPS (Optional)

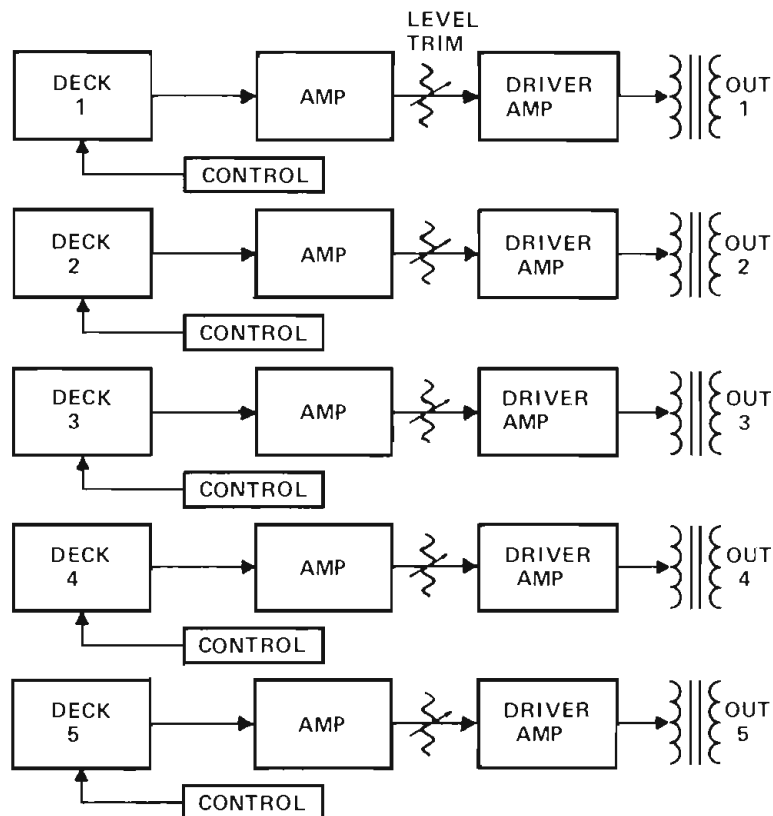
Capacity NAB Standard Cartridge: Size "A"
Power Requirements: 105 - 125 V ac
 60 Hz @ 75 watts
 220 - 250 V ac
 50 Hz @ 75 watts
 (Other Line Standards on Special Request).

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.

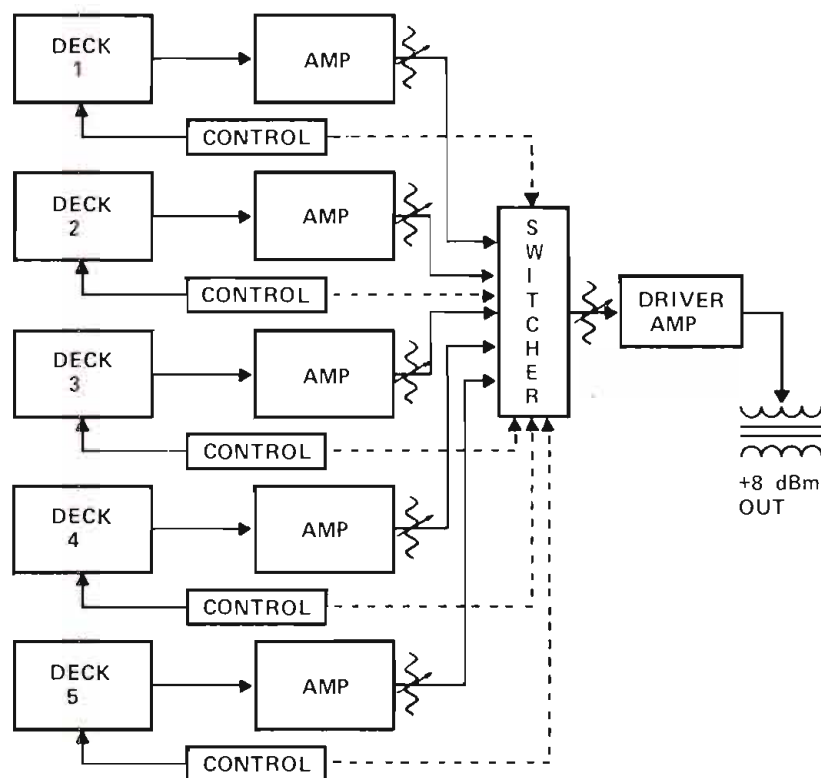
MECHANICAL:
Overall Dimensions: 14.39" H x 5.44" W x 17.75" D.
Weight: 42 lbs.
Rack Panel Adapter: RA35 (for 3 - Model 305): 15¾" H x 19" W x 18" D

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

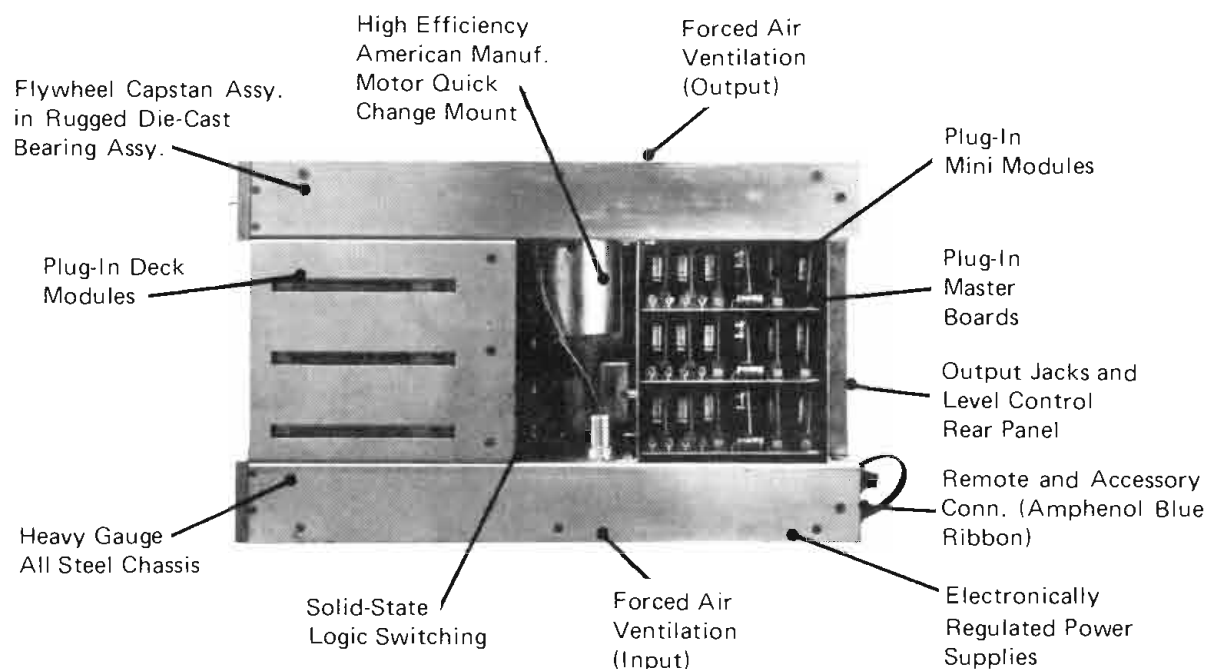


RA 33
Rack Panel Adapter

- 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)

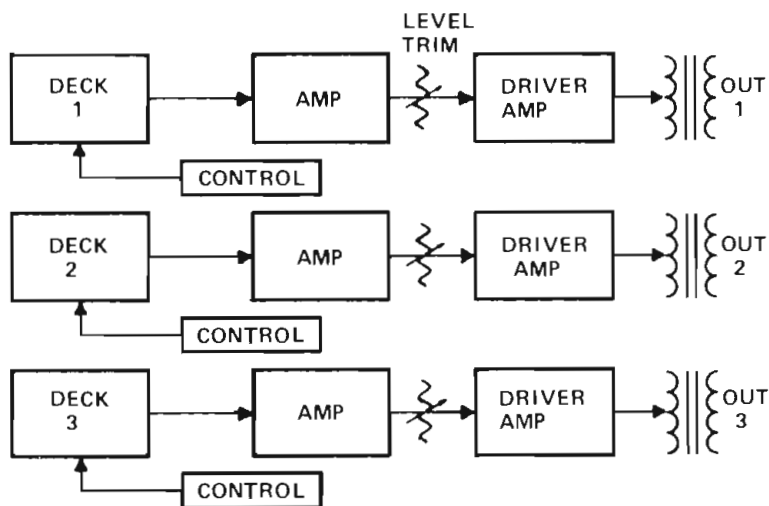
Frequency Response:	±2 dB 50 Hz to 15,000 Hz ±4 dB 30 Hz to 18,000 Hz
Distortion:	1.5% or less @ 0 VU, Ref: 400 Hz
Signal to Noise:	Unweighted -55 dB or better Ref: NAB Standards Section 2.35
Cross Talk:	Cue/Pgm: -55 dB or better @ 1KHz Ref: NAB Standard 2:40
Equalization:	NAB Standard (Other Standards: 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) 3¾ IPS (Optional)
Speed Accuracy:	±0.4% or better.
Wow & Flutter:	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 @ 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.
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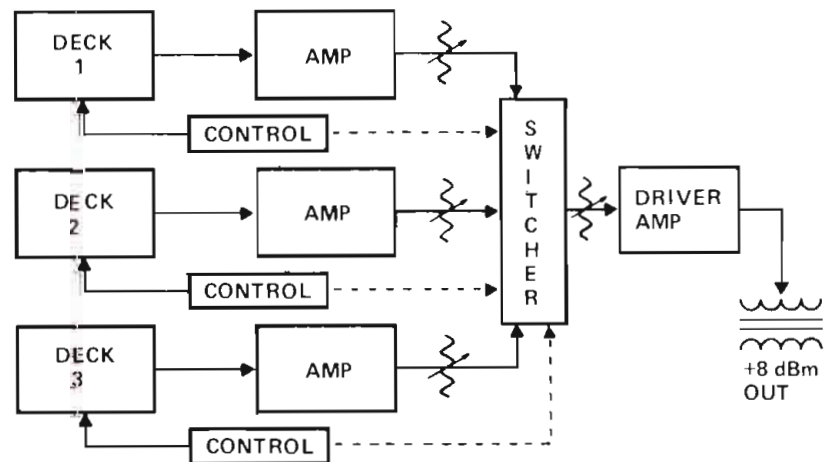
MECHANICAL:	
Overall Dimensions:	10.45" H x 5.44" W x 17.75" D. x
Weight:	30 lbs.
Rack Panel Adapter:	RA33 (for 3 - Model 303): 12¼" H x 19" W x 18" D

Typical Audio Block Diagrams



303D

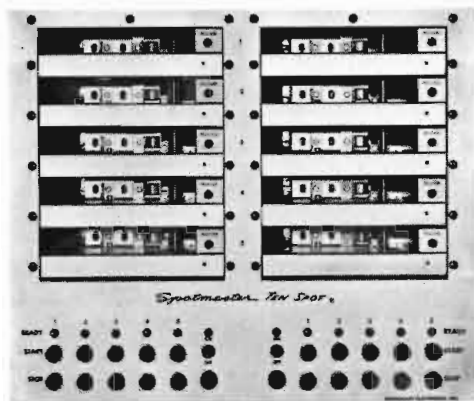
PROVIDES 3 INDIVIDUAL OUTPUTS



303D-SW

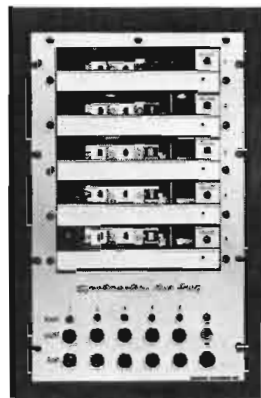
SUPPLIED WITH SWITCHER
PROVIDING ONE AUDIO OUTPUT

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.

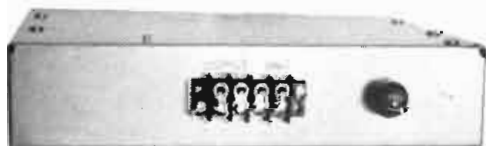
Specifications

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



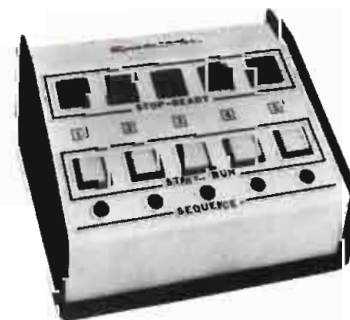
SW 5B AUDIO SWITCHER

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



MRM 600A RECORDING MODULE

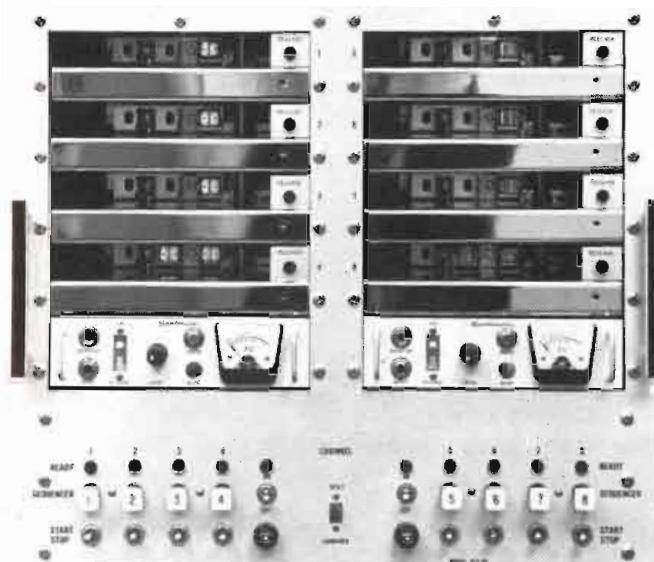
Remove one playback deck, insert MRM 600 for instant conversion to record capability.



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.

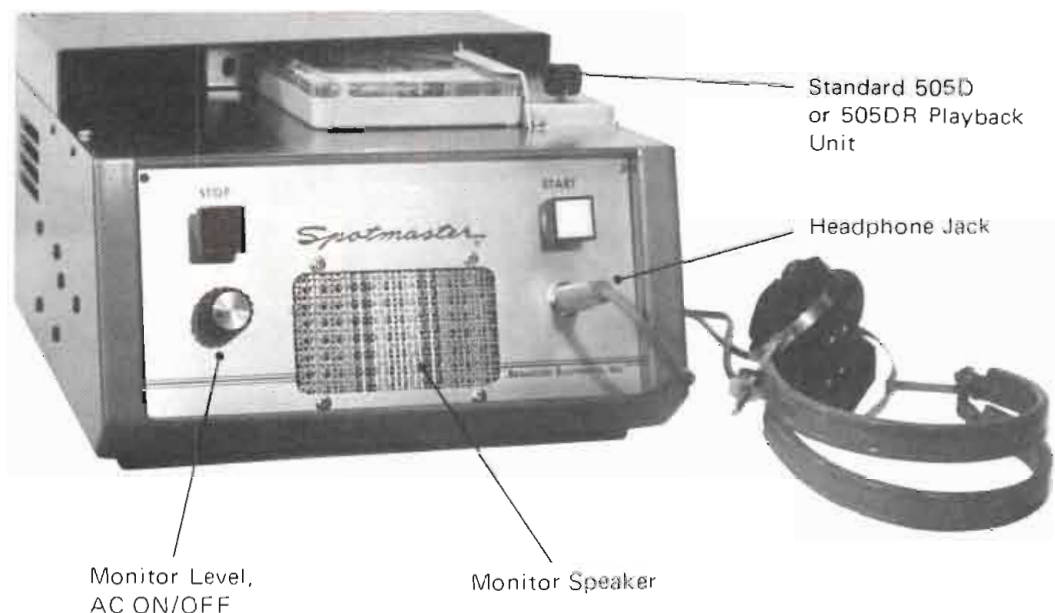


News Bureau Audition Unit

MODEL 505D/A PLAYBACK UNIT

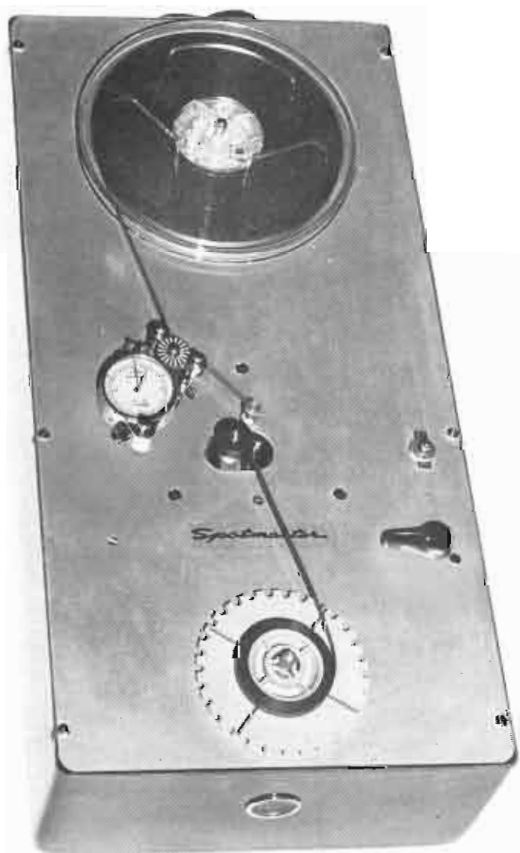
Now available with 505D or 505DR series playback units, a built-in monitor amplifier/speaker system, level control and headphone monitoring facility. Headphone impedance, 8 ohms nom.

Other specifications as per model 505D.



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

BETM-100 Tape Cartridge Winder

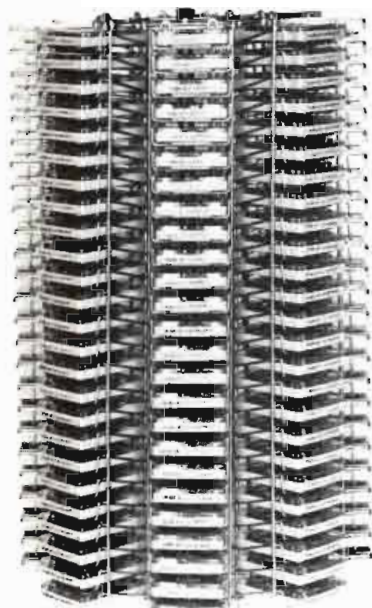


The SPOTMASTER Tape Cartridge Winder is a rugged, dependable and field tested tape cartridge winder which fills a need in every station using cartridge equipment. It is no longer necessary to limit your cartridge operation by using only stock sizes or to tie up your conventional tape equipment to load 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.

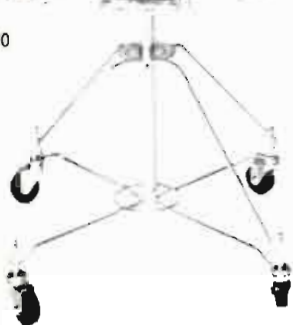
Specifications

Size:	10" W x 20" L x 6.5" 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 7½" dia.
Capacity:	Handles supply reel up to 3600' 1 mil lubricated tape.

Wire Units



LS-200



LS-200 Lazy Susan

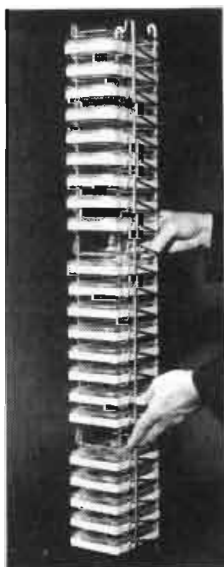
Holds 200 cartridges on rotating stand. Ideal for large storage situations requiring mobility. Equipped with 4 heavy-duty casters and constructed of rugged steel rod finished bright zinc. Each individual RS-25 section is removable 51 1/4" high, 20 1/2" diameter.



LS-100

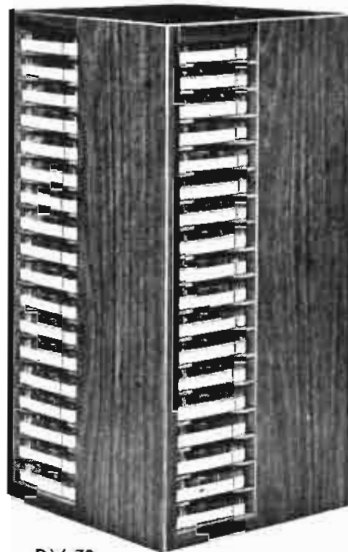
LS-100 Lazy Susan

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

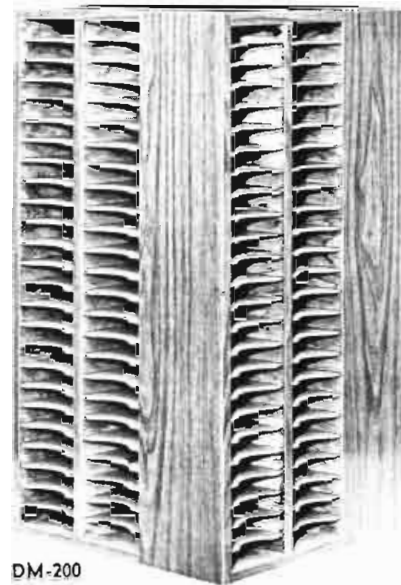


RS-25 RACK SECTION

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. 29 1/2" x 15 3/4" x 15 3/4"

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



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 5 1/4" 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 playtime.



300C/330C



200C/220C

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

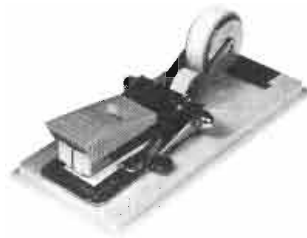
Handy self-adhesive labels especially die-cut and color-coded for cartridge cataloging . . . and is easy to remove . . . Room for three typewritten lines . . . Sheets of 8 tags each . . . Eight distinctive colors.



**BET-50
Tape
Timer**

Precise tape or speed measuring device . . . Scale calibrated in minutes and seconds at 7½ or 3¼ IPS . . . Features reset knob and strobe disc for speed checks . . . Use with reel-to-reel or cartridge units.

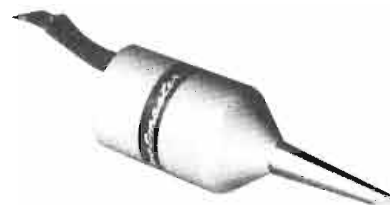
Tape Splicer



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.

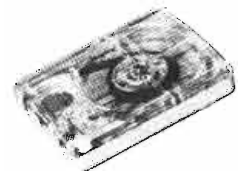


Head Demagnetizer

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.





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, 1/2A at 250 VAC, resistive loads.

Power Requirements:

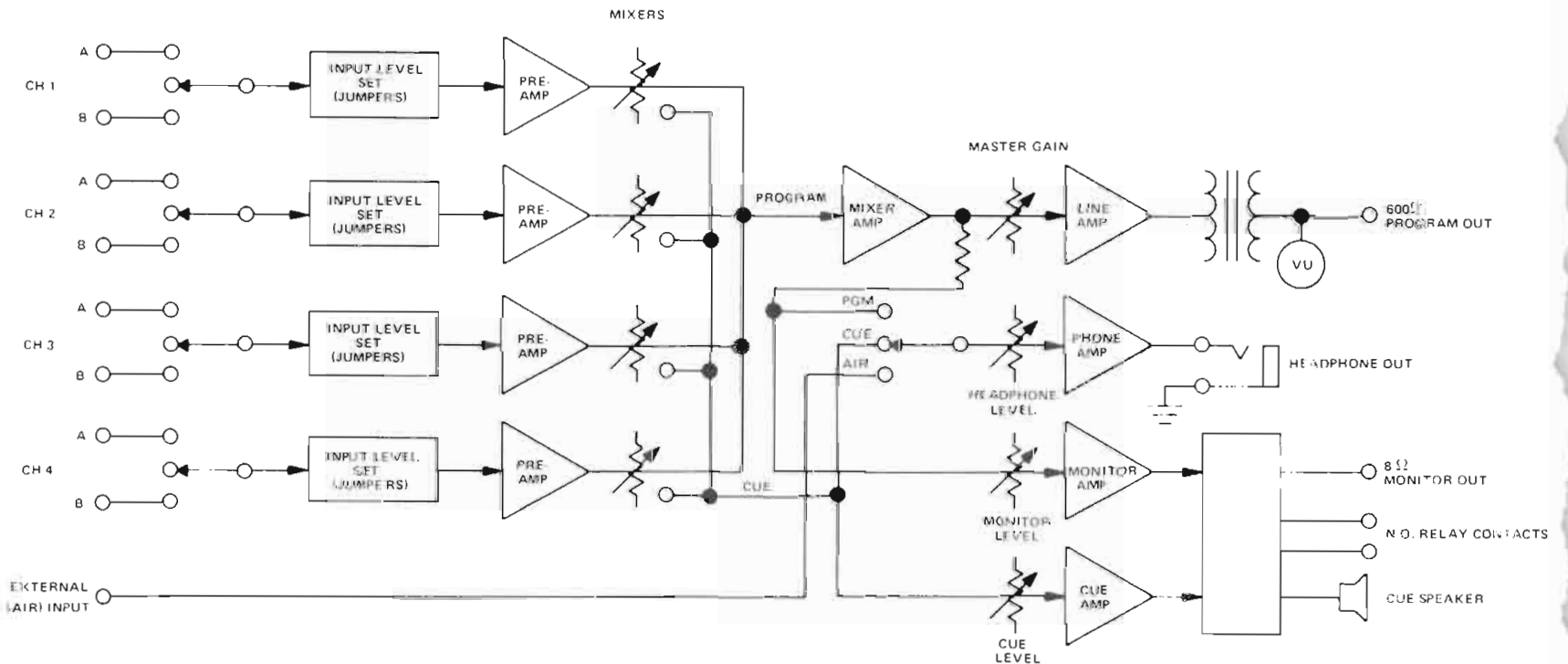
120 or 240 VAC (±10%), 50/60 Hz, 40 Watts

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:

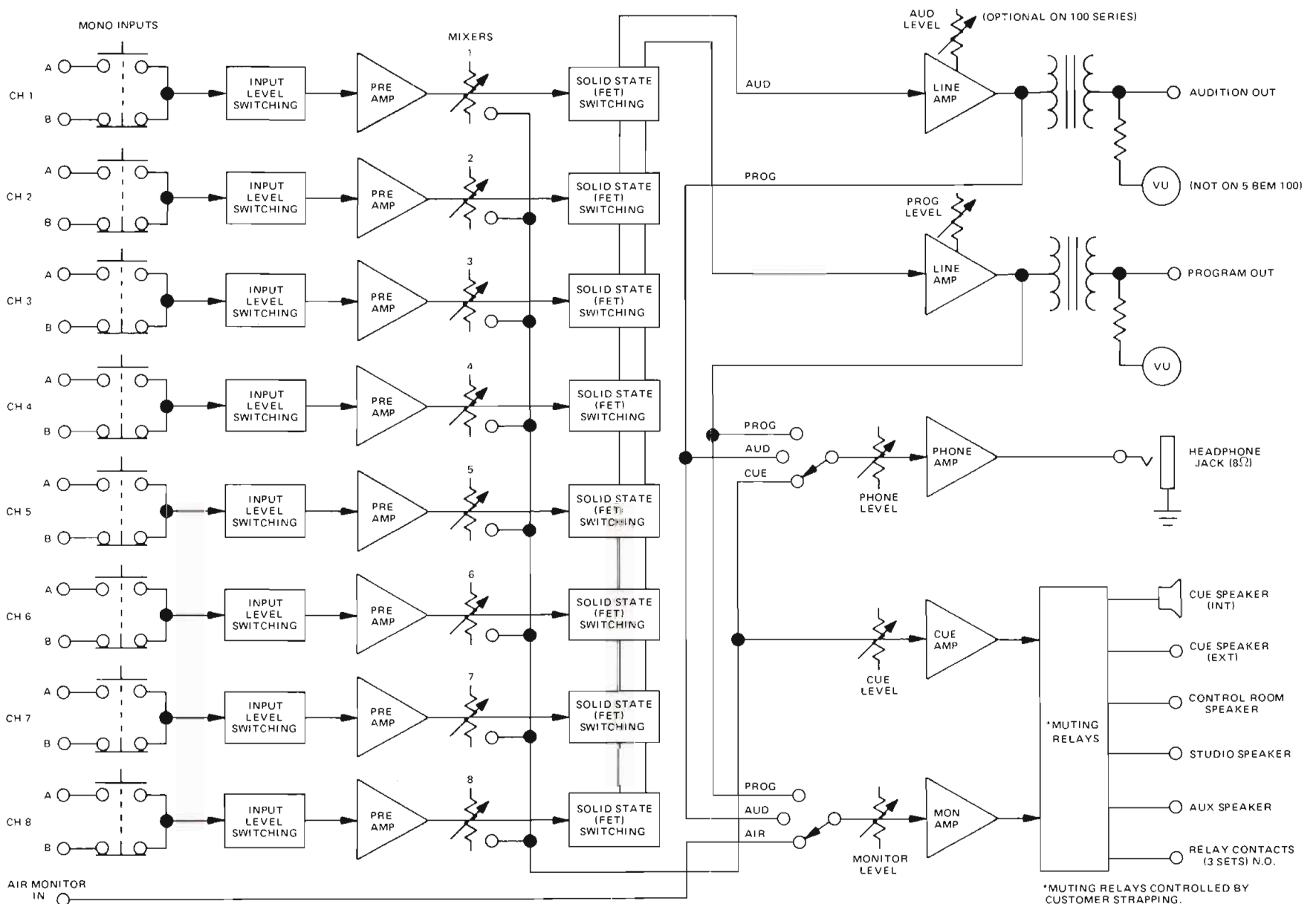
50W, 117 VAC, 50/60 Hz or 230 VAC, 50/60 Hz.

Size:

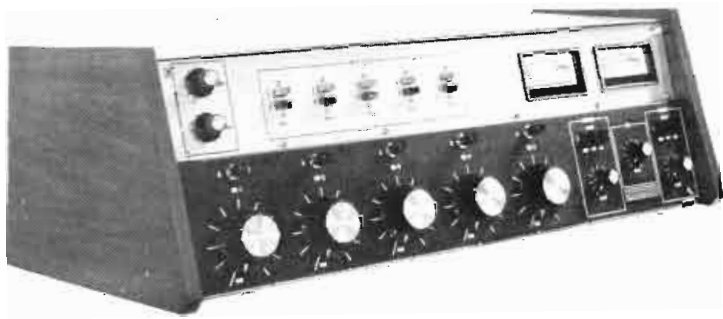
5BEM
29.5" Wide x 13" Deep x 7.5" High
8BEM
32.5" Wide x 13" Deep x 7.5" High

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.

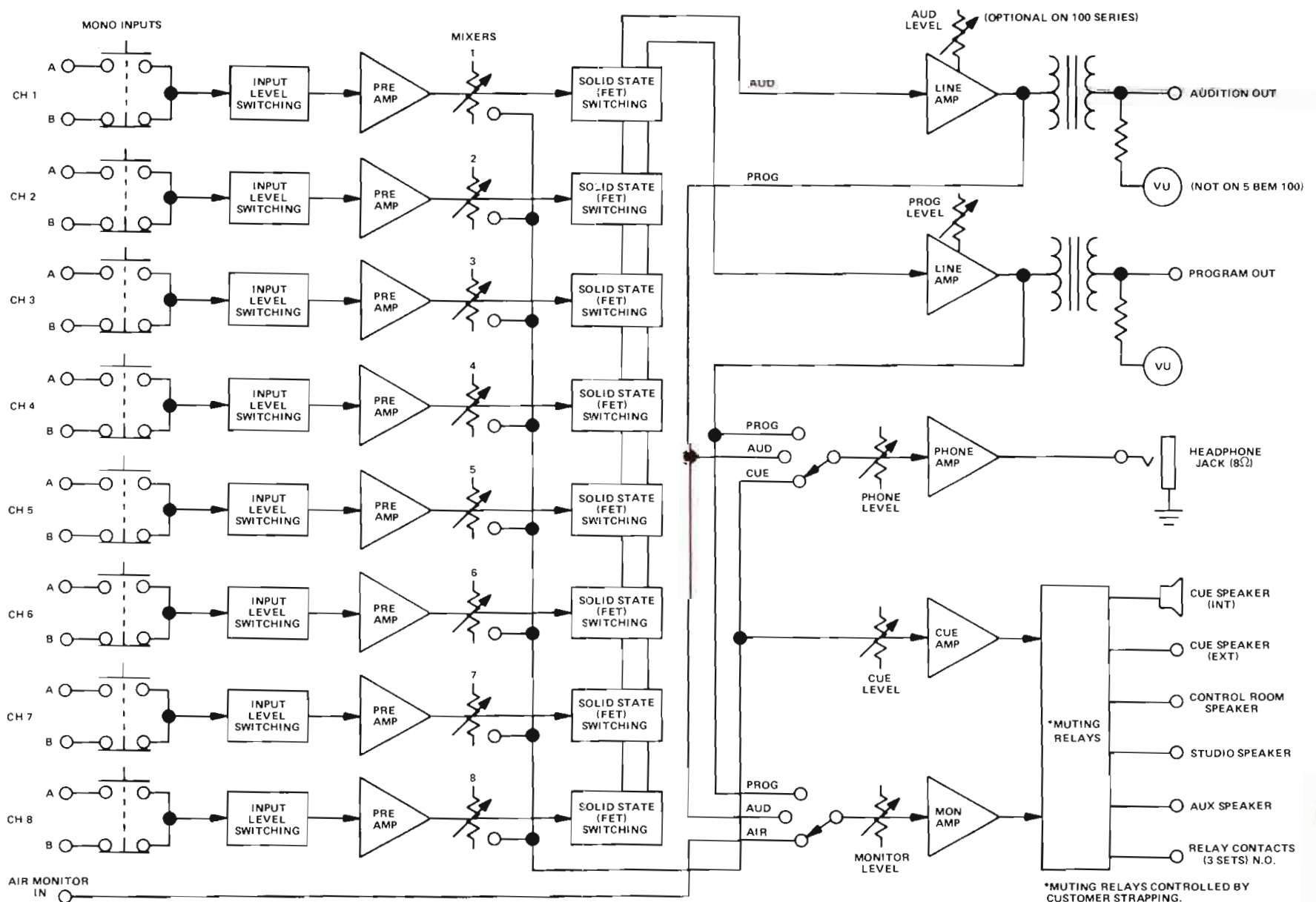
8 BEM

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



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:

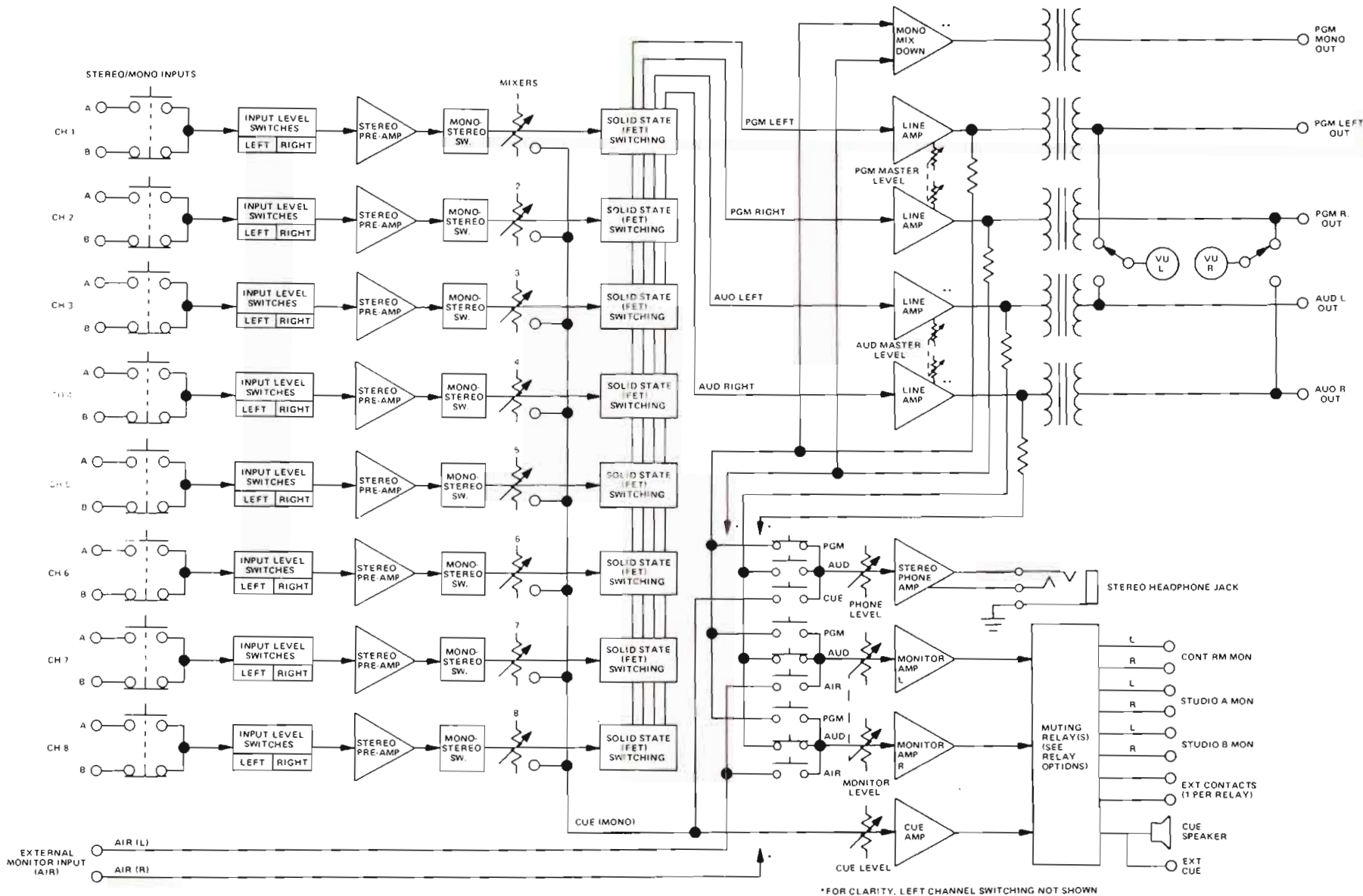
85 watts max., 115V or 230V, 50/60 Hz.

Size:

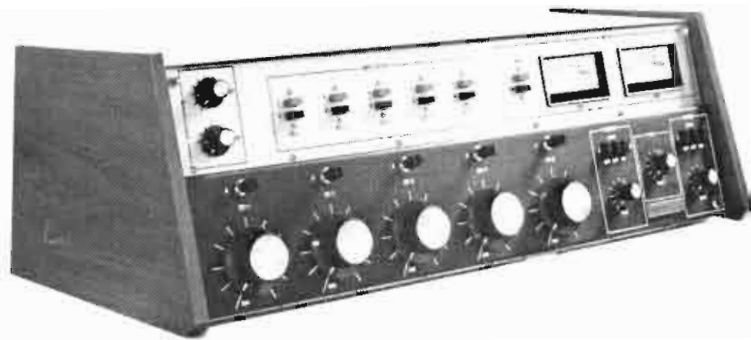
8BES
 32.5" wide x 13" deep x 7.5" high.
 5BES
 29.5" wide x 13" deep x 7.5" high.

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



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.

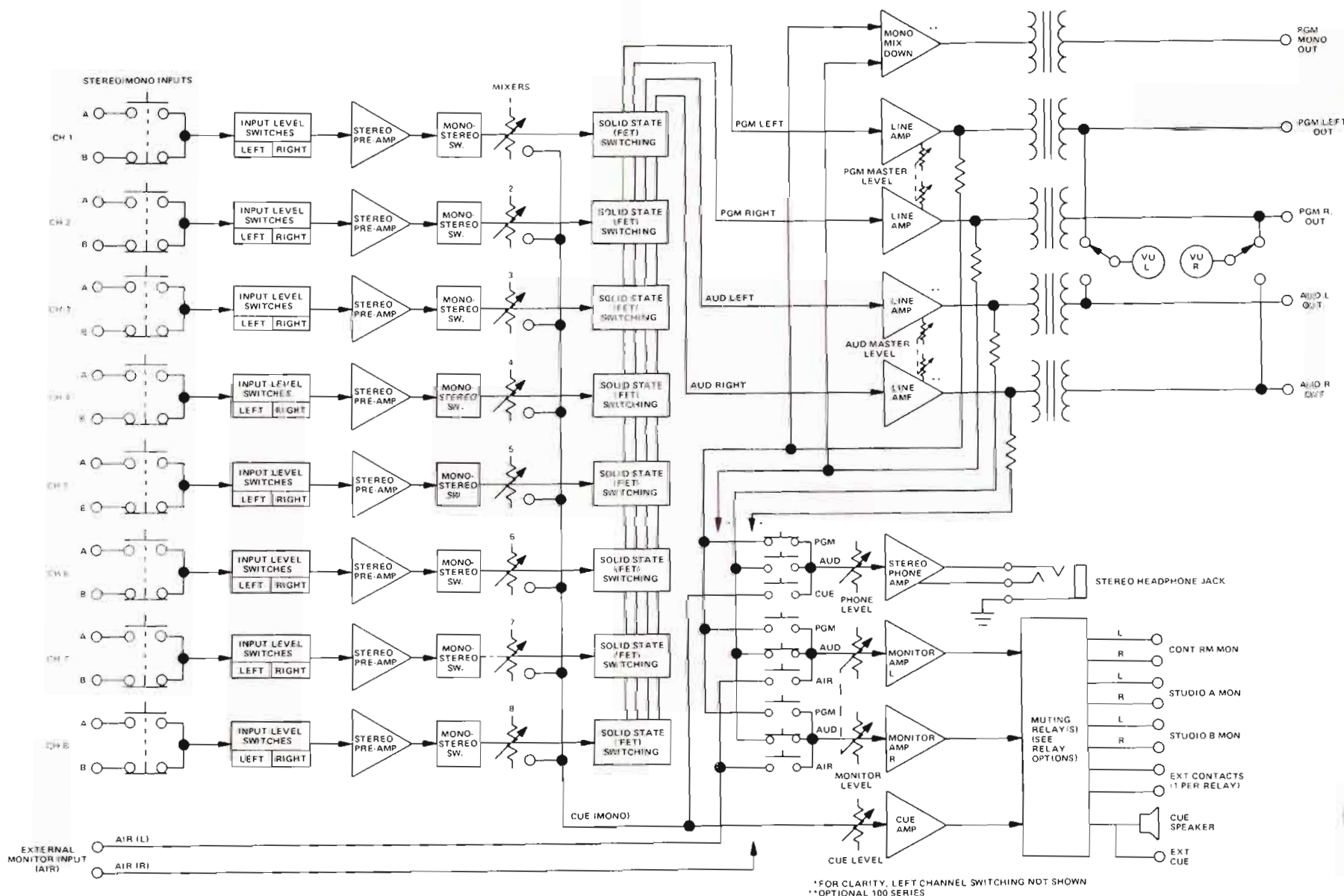
8 BES

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

Options

230 VAC/50/60 Hz operation.

4 mixer extender with remote line provisions.



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 Hz, 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

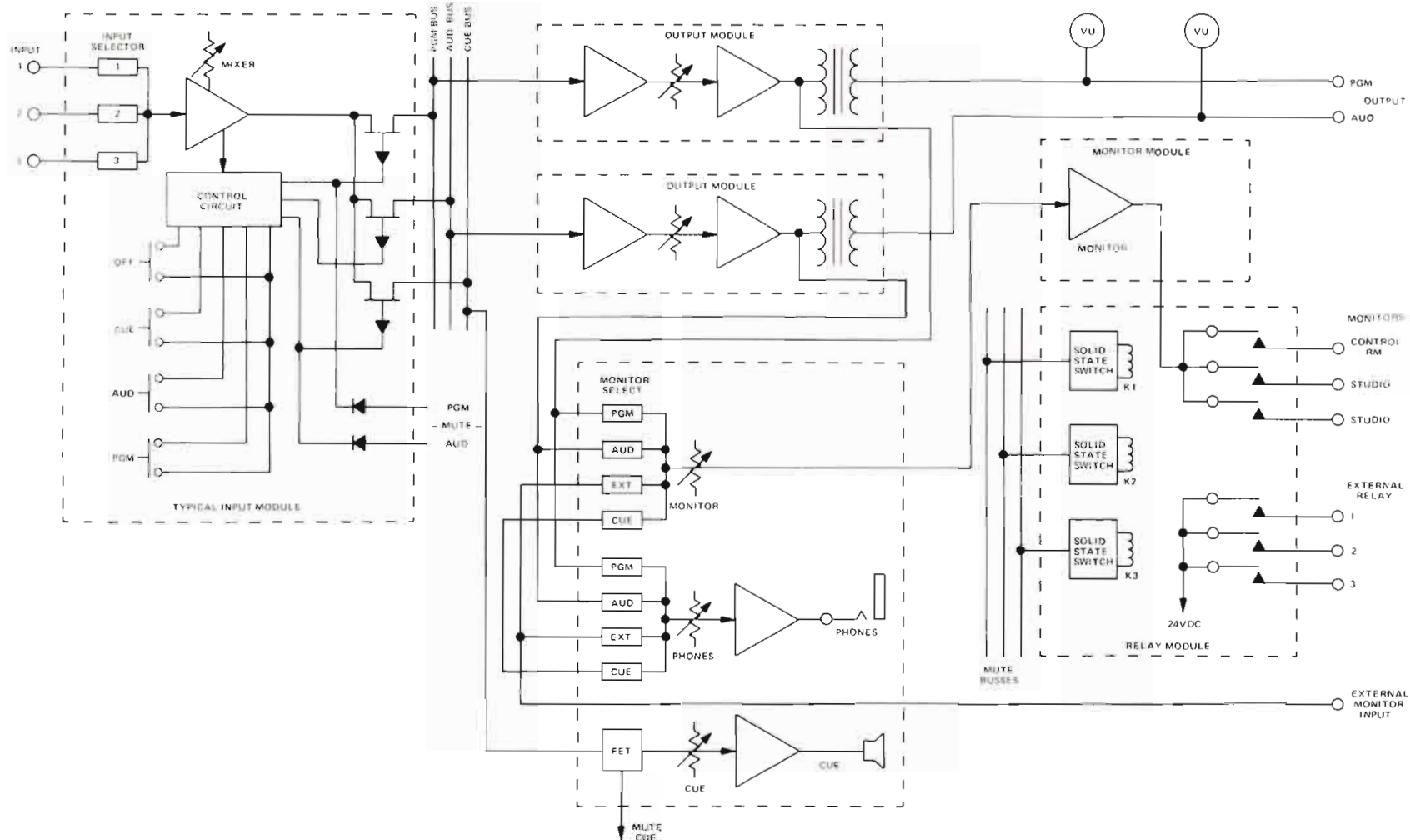
24 volts provided for external control relays.

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

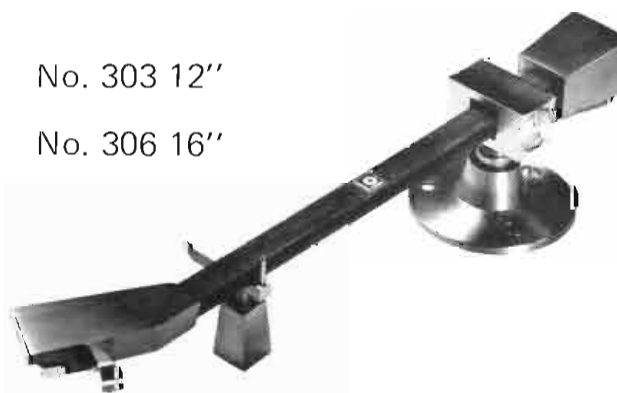
Dimensions: 15½" x 15½"
 Weight: 20 lbs.
 Wow & Flutter: Less than .2 of 1%
 Motor: Hysteresis Sync
 Rumble: 38 dB below NAB level @ 33 and 45 RPM
 Bearings: Bronze Oilite throughout
 Power Requirements: 110 V ac, 60 Hz (50 Hz available)

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

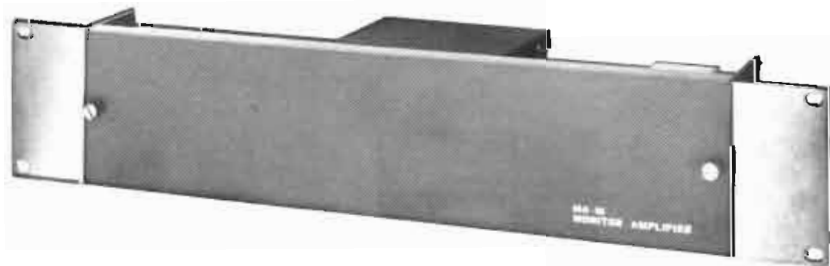


Spotmaster has developed a 3-1/2" rack mount Modular Amplifier package with provisions for four plug-in modules. This Modular Amplifier may be used for mono, stereo, quad-channel, mono amplifiers, multiple studio monitors, or combinations in both local and remote applications.

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:**
3 1/2" x 19" rack panel.

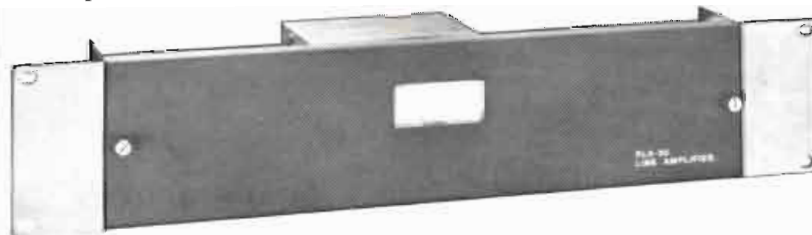
The individual modules may be line amplifiers, ten-watt power amplifiers, or pre-amplifiers in any mixed combination.

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

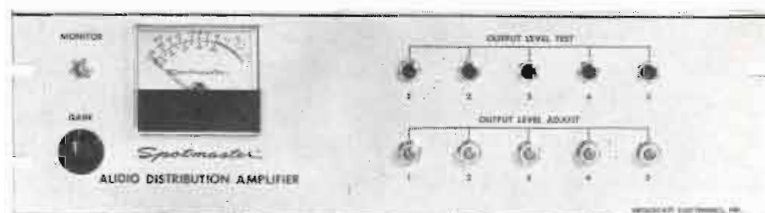
This wideband amplifier is designed for service as a program or line amplifier. The unit is designed for rack mounting and is provided with input level pad, output level control and VU meter switch.



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.

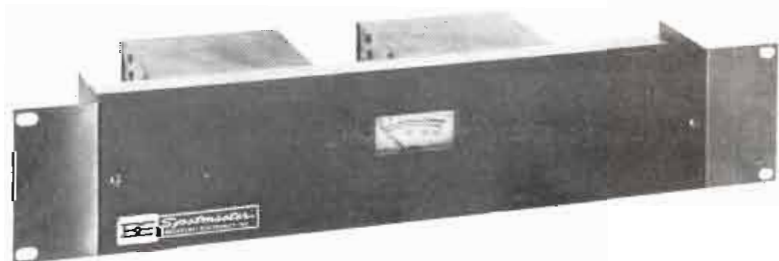
The five highly isolated output channels of the ADIB are expandable up to 25 output channels by the addition of ADIB-X Extenders, which also contain the same aural monitoring facilities as the ADIB.

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 ADIB-X: 10KΩ, unbalanced
Output Load Impedance:	600Ω (Optional 150/600Ω)
Input Level:	Max.: +30 dBm, ADIB-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. ADIB-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, ADIB-X: 40 watts.
Dimensions:	19" W x 5½" H x 7-1/8" L.
Weight:	9½ lbs., ADIB-X: 8 lbs.
Finish:	Clear anodized brushed aluminum, with black lettering.
Controls:	1 gain, 5 output level, 5 meter monitor (momentary), ADIB-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:	3¾ 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 3¾ IPS. Weighted peak to peak flutter as per DIN 0.08% at 7½ IPS and 0.1% at 3¾ 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 3¾ 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). 3¾ IPS better than 58 dB (4-track 54 dB)		

Desk Top Unit



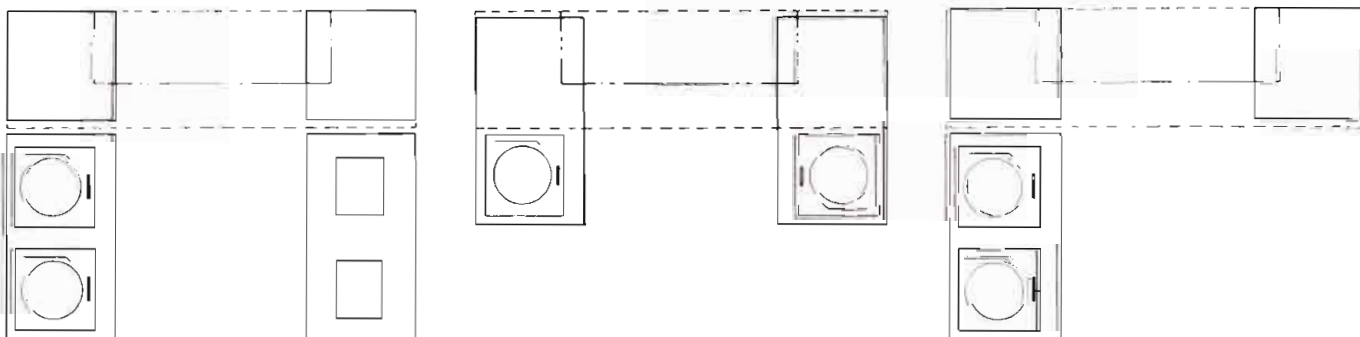
- MODULAR DESIGN FOR COMPLETE FLEXIBILITY.
- SINGLE AND DUAL TURNTABLE CABINETS.
- DESK TOP SECTION MOUNTS ON CABINETS OR METAL LEGS.

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

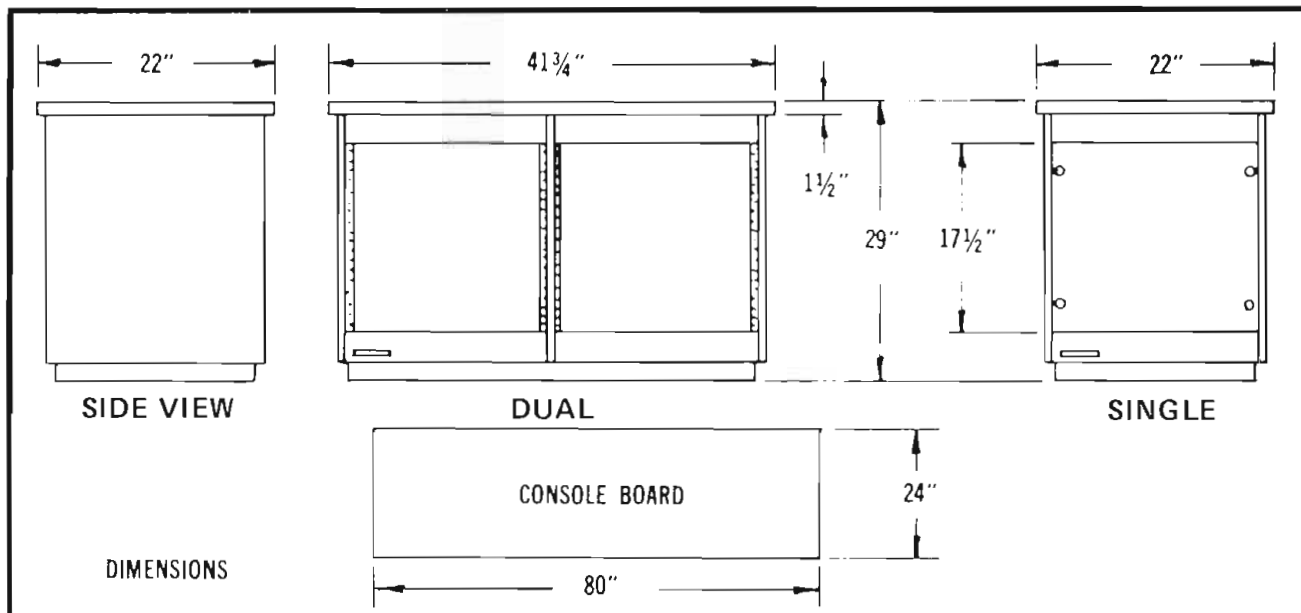
- Size:** 41-3/4" wide X 22" depth x 29" height.
- Finish:** "Summer Pecan" wood grain formica on vertical surfaces, French Blue formica on cabinet top. (Special colors available on order at extra cost.)
- Construction:** Panels fabricated from high density particle board 3/4" thick (front and rear closure 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

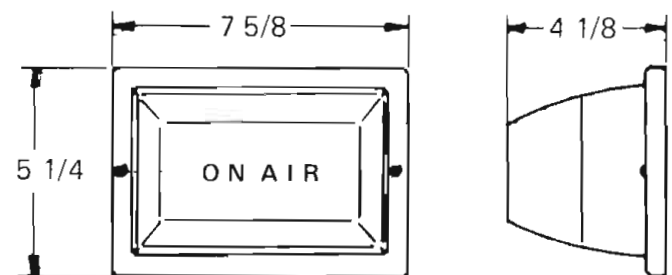
Combines quartz crystal technology with sophisticated electronic circuitry to create one of the world's most accurate clocks.

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

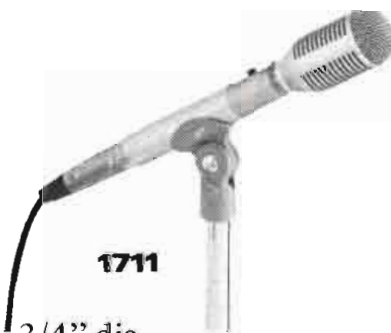


649B

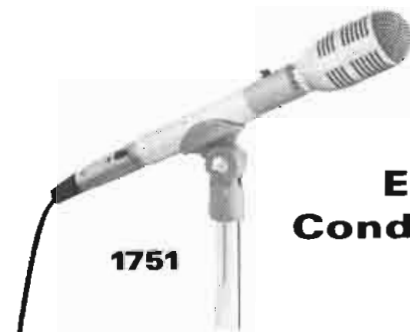
649B: Smallest dynamic lavalier only 2-1/4" long, 3/4" dia. Response is carefully tailored to compensate for lavalier acoustic conditions so resulting signal perfectly matches signal from other microphones. Response: 70 to 10,000 Hz. Impedance: 150 ohms. Output level: -61 dB.

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

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.

NEW
Electret
Condensers

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 playback 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:

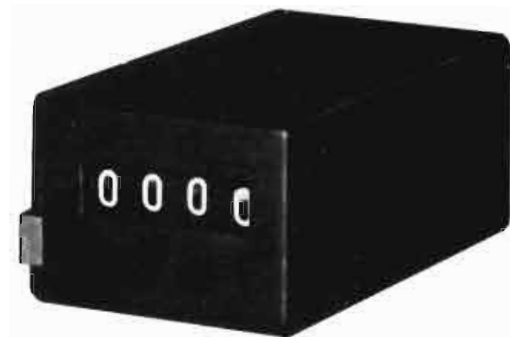
- | | |
|--|---|
| Telco IIIB Incoming calls only | } Interface with 500 series, 605 series & 3/70. |
| Telco IIIC Incoming and outgoing calls | |
| Telco IVB Incoming calls only | } Interface with 10/70 series. |
| Telco IVC Incoming and outgoing calls | |



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

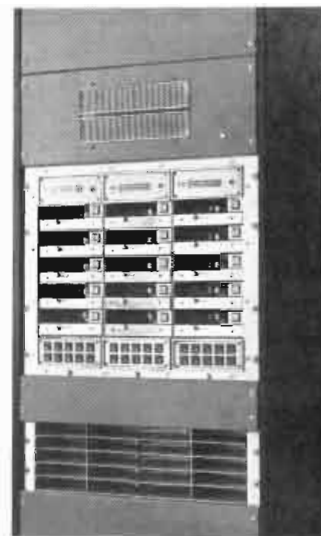
THE SENSIBLE APPROACH TO AUTOMATION

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.

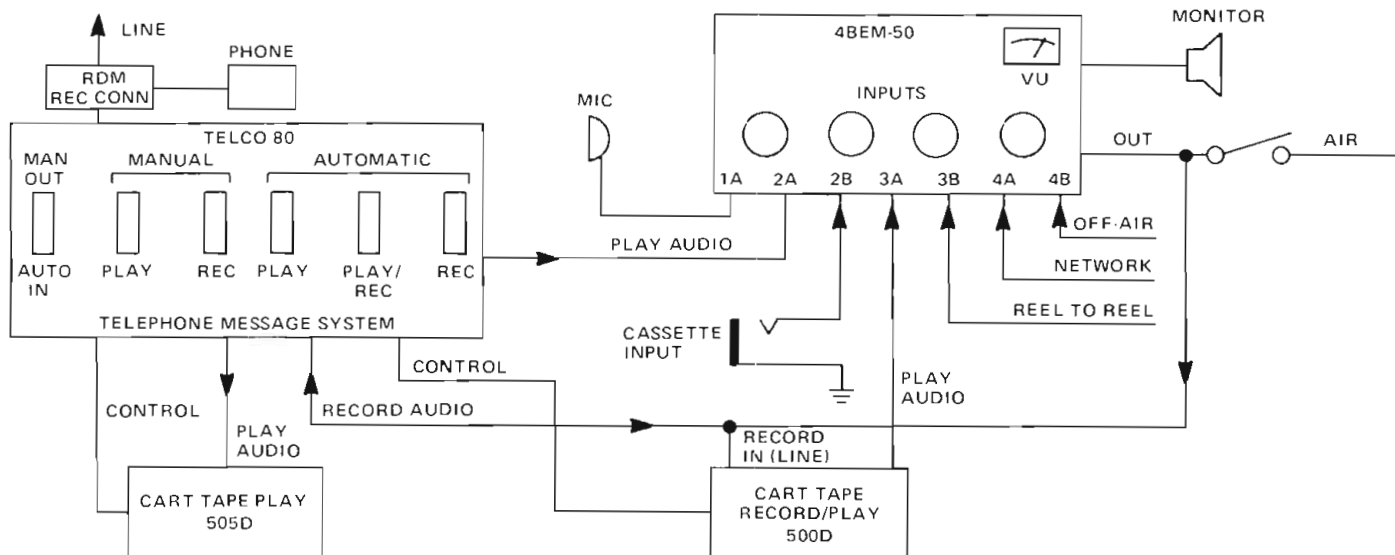
SEE DIAGRAM NEXT PAGE →

SPOTMASTER News Center

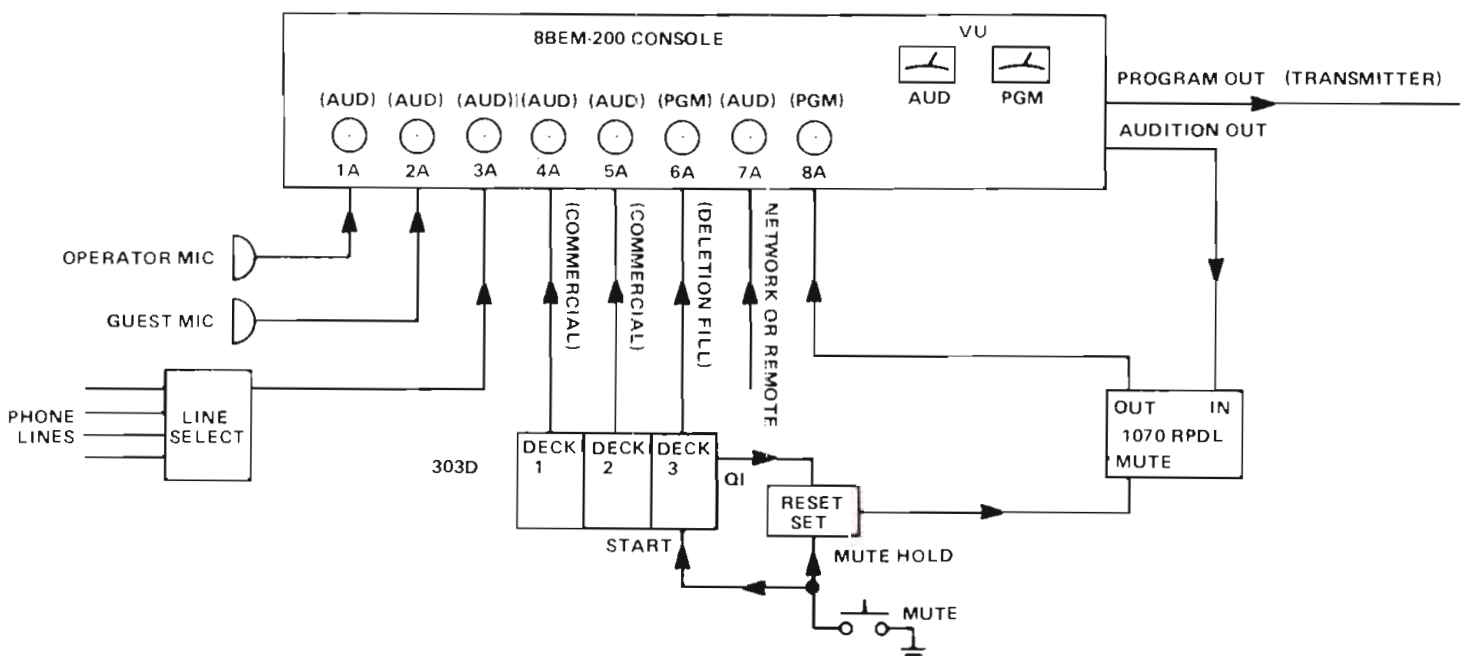
- UNATTENDED TELEPHONE ANSWERING AND PLACING OF ANNOUNCEMENTS
- MANUAL TELEPHONE OPERATION
- PRODUCTION AND EDITING INCLUDING DUBBING FROM THE PLAY TO RECORD CARTRIDGE WITHOUT INTERFERING WITH NORMAL PHONE USE
- ON THE AIR BROADCAST OF LIVE OR PRE-RECORDED AUDIO

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)	N/A	
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 —

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

Spotmaster

AUDIO CONSOLE

Model 4BEM-50

- . 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 monitoring 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:

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

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



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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, $\frac{1}{2}$ A at 250 VAC, resistive loads

Power Requirements: 120 or 240 VAC ($\pm 10\%$), 50/60 Hz

Size: 18" Wide X 13" Deep X 7.5" High

Options

Rack Adapter for 19" rack
230V/50/60 Hz operation

Spotmaster

AUDIO CONSOLE

Model 5BEM-100

- 5 mixer monaural dual channel console
- High or Low level inputs on all mixers
- FET Audio Switching
- Audition and Program Channel Outputs Standard

The monaural 5BEM-100 is a top-value dual channel console. The solid state, plug-in amplifiers offer superb operating specifications. All five mixing channels accept either microphone or line inputs as selected by internal switching. Separate identical amplifiers for the audition and program channels are supplied. The 3½-inch VU meter is switchable to monitor either the audition or program channel. 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:

- 10 inputs into 5 mixers, 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 HiZ
Front panel jack and internal connections available

Frequency Response:

- Program and Audition: ± 0.5 dB, 20 Hz to 20 KHz, reference 1 KHz
@ +8 dBm output into 600 ohms
- Monitor: ± 2 dB, 50 Hz to 20 KHz, reference 1KHz at 1 Watt output into 8 ohms

Distortion:

- Program and Audition: 0.5% THD or less with +16 dBm output into 600 ohms
- Monitor: 1% THD or less at 5 Watts into 8 ohms

Signal to Noise:

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



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Muting:

Two relays

Monitor Muting: Monitor outputs through both relays

Cue Muting: 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 2.

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

Power Requirements: 50W, 117 VAC, 50/60 Hz or 230 VAC, 50/60 Hz

Size: 29.5" Wide X 13" Deep X 7.5" High

Options

230 VAC/50 Hz Operation

4 mixer extender with remote line capabilities

Spotmaster

AUDIO CONSOLE

Model 5BEM-200

- . 5 mixer monaural, dual channel console
- . Daven type step attenuators
- . Built-in 10 Watt monitor amplifier
- . Separate VU meters for the audition and program channels

The monaural 5BEM-200 is a highest quality full dual channel audio console. Ten pushbutton-selected inputs are available to five high or low level (switchable) plug-in preamps. Mixers are precision ladder attenuators. Selection of audition or program channels is by FET's--fast, quiet, distortion-free, and remote controllable! 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 P. C. cards.

The 5BEM-200 has full built-in monitoring capabilities. The ten Watt monitor amplifier delivers sharp, true sound to three individually muted outputs. 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 #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, soldered) through two access channels in console bottom.

Specifications

Inputs:

10 inputs into 5 mixers (2 inputs per mixer). 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



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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, +18 dBm output into 600 ohms

Monitor: 1% THD or less at rated load and output

Signal to Noise:

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

Muting: Three relays

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: 60 Watts, 115V or 230V, 50/60 Hz

Size: 29.5" wide X 14" deep X 9.5" high

Options

230V, 50/60 Hz operation

4 mixer extender with remote line provisions

Model 5BES-100

- . 5 mixer stereo console
- . Optional Dual Channel
- . Accepts mono or stereo inputs
- . Long-life sealed mixers

The stereo 5BES-100 is an inexpensive 5 mixer console with full capabilities. Ten inputs and all input amplifiers switchable for either mono or stereo sources. A unique feature for a console of this price. Of course, switch selection of microphone or line level sensitivity. All solid-state electronics with FET audio switching are standard features. Conveniently, the electronics are on plug-in modules. Amplifiers are supplied for stereo headphones, stereo speakers, and internal or external cue speaker.

Options allow even greater versatility. Full dual operation is available by adding line amplifiers for the audition channel. A matrix is available to provide a separate composite monophonic output derived from the main stereo output.

Specifications

Inputs:

- 10 inputs into 5 mixers (2 inputs per mixer). 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 (82K 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; +16 dBm maximum
- Optional Mono: 600 ohm transformer balanced; +8 dBm nominal; +16 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



Signal to Noise:

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

Muting:

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: 75 Watts, 115V or 230V, 50/60 Hz

Size: 29.5" wide X 13" deep X 7.5" high

Options

230 VAC, 50/60 Hz operation

Mono Matrix Card

Audition Channel Line Amplifier

Model 5BES-200

- . 5 mixer stereo dual channel console
- . Daven type step attenuators
- . Mono matrix output standard
- . Accepts mono or stereo inputs

The stereo 5BES-200 provides the best combination of features for the stereo broadcaster or producer. The 5BES-200 is both a stereo and mono console, with identical program and audition channels. The ten pushbutton-selected inputs feed five 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-- fast, quiet, distortion-free, and remote controllable! Two 3½" illuminated VU meters can monitor either audition or program outputs. Four interchangeable mixer-output P. C. 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 #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-soldered) through two access channels in console bottom.

Specifications:

Inputs:

- 10 inputs into 5 mixers (2 inputs per mixer); 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); -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
- 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



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

Muting: Three Relays

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: 90 Watts, 115V or 230V, 50/60 Hz

Size: 29.5" wide X 14" deep X 9.5" high

Options

230 VAC/50/60 Hz operation

4 mixer extender with remote line provisions

Model 8BEM-100

- . 8 mixer mono dual channel console
- . Long-life sealed pots
- . Separate VU meters for audition and program channels
- . All connections to internal barrier strips

The monaural 8BEM-100 is the complete inexpensive eight mixer console. Plug-in amplifiers are supplied for separate program and audition outputs. Both these outputs are 600 ohm transformer coupled with a capability of +8 dBm. Separate 3½" VU meters are provided for simultaneous monitoring of the program and audition channels. Of course, amplifiers are supplied for monitor speakers, headphones, and a cue speaker. The monitor amp supplies 5 W through two muting relays for studio use. An internal cue speaker is provided as well as connections for an external cue speaker. The front panel headphone jack accepts headsets from 8 ohms up.

Two inputs are switch selectable to each of the eight solid-state pre-amplifiers. Any or all preamplifiers can be switch-selected for a microphone or line level input. The mixers are sealed, long-life units for continued quiet operation without maintenance. All connections are on barrier strips within the console, safe from accidents and tampering. Best of all, the barrier strips are labeled for simple installation and easy reference, no need to refer to service manuals each time you change set-ups.

Specifications

Inputs: 16 inputs into 8 mixers (2 inputs per mixer); 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 ohms, transformer balanced; +8 dBm nominal; +16 dBm maximum

Audition: 600 ohm transformer balanced; +8 dBm nominal; +16 dBm maximum

Monitor: 5 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

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



Signal to Noise:

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

Muting: Two Relays

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: 60 Watts, 115V or 230V, 50/60 Hz

Size: 32.5" wide X 13" deep X 7.5" high

Options

230V, 50/60 Hz operation

Spotmaster

AUDIO CONSOLE

Model 8BEM-200

- . 8 mixer monaural, dual channel console
- . Daven type step attenuators
- . Built-in 10 Watt monitor amplifier
- . Separate VU meters for the audition and program channels

The monaural 8BEM-200 is a highest quality full dual channel audio console. Sixteen pushbutton-selected inputs are available to eight high or low level (switchable) plug-in preamps. Mixers are precision ladder attenuators. Selection of audition or program channels is by FET's--fast, quiet, distortion-free, and remote controllable! 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 P. C. cards.

The 8BEM-200 has full built-in monitoring capabilities. The ten Watt monitor amplifier delivers sharp, true sound to three individually muted outputs. 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 #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, soldered) through two access channels in console bottom.

Specifications

Inputs: 16 inputs into 8 mixers (2 inputs per mixer); all mixers high or low level (internally switchable)

Low Level: 150 ohm, balanced; maximum available gain = 92 dBm; -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 and external connections provided

Headphones: 0.5 Watt RMS, 8 or 16 ohms, or HiZ; front panel jack and internal connections available

Frequency Response:

Program and Audition: ±0.5 dB of 1KHz, 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



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Distortion:

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

Muting: Three Relays

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, audi-
tion 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, 115V or 230V, 50/60 Hz

Size: 32.5" wide X 14" deep X 9.5" high

Options

230V, 50/60 Hz operation

4 mixer extender with remote line provisions

Spotmaster

AUDIO CONSOLE

Model 8BES-100

- . 8 mixer stereo console
- . Optional dual channel operation
- . Built-in monitor, cue, and headphone amplifiers
- . All mixers accept mono or stereo sources

The stereo 8BES-100 features 8 stereo mixers with pushbutton selection of 16 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 program outputs. Program (and optional audition) plug-in mixer-line driver cards provide a transformer-balanced +16 dBm maximum 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. All in stereo, of course. The cue bus features a composite of both the left and right channels for positive preview of stereo sources.

Specifications

- Inputs: 16 inputs into 8 mixers (2 inputs per mixer); 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



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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, 115V or 230V, 50/60 Hz

Size: 32.5" 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

Model 8BES-200

- . 8 mixer stereo dual channel console
- . Daven type step attenuators
- . Mono matrix output standard
- . Accepts mono or stereo inputs

The stereo 8BES-200 provides the best combination of features for the stereo broadcaster or producer. The 8BES-200 is both a stereo and mono console, with identical program and audition channels. The sixteen pushbutton-selected inputs feed eight 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--fast, quiet, distortion-free, and remote-controllable! Two 3½" illuminated VU meters can monitor either audition or program outputs. Four interchangeable mixer-output P. C. 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 #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-soldered) through two access channels in console bottom.

Specifications

Inputs: 16 inputs into 8 mixers (2 inputs per mixer); 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

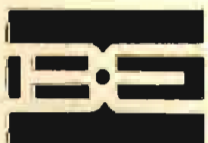
Audition: 600 ohm transformer balanced; +8 dBm nominal, +18 dBm maximum

Mono: 600 ohm transformer balanced; +8 dBm nominal; +18 dBm maximum; 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

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, +18 dBm output into 600 ohms

Monitor: 1% THD or less at rated load and output

Signal to Noise:

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

Muting: Three Relays

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: 105 Watts, 115V or 230V, 50/60 Hz

Size: 32.5" wide X 14" deep X 9.5" high

Options

230 VAC/50/60 Hz operation

4 mixer extender with remote line provisions

March, 1974

SPOTMASTER MODULAR SLIDE TYPE AUDIO CONSOLE
MODEL SERIES BEML-1006 Mono
BESL-1006 Stereo

SPOTMASTER recently up-graded and expanded its standard line of rotary-mixer type audio consoles to the point where the SPOTMASTER is one of the most economical and full feature lines of consoles in the field.

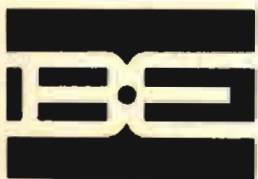
SPOTMASTER now announces the SLIDE-MOD line of linear slide fader consoles. It is the ultimate in full feature consoles.

The SLIDE-MOD line is the only fully modular console in existence, loaded with many valuable features, yet surprisingly economical, never obsolete -- easily expandable.

Start with six mixers, later expand to ten mixers by removing individual cover panels, then plugging in the individual control module.

The basic frame assembly will accept up to ten input modules, with two types of modules available: mic input and line input. All modules have solid state switching actuated by momentary push button routing of audio to program, audition or cue amplifiers. Each module will accept three inputs, with capability of switching each of them into a linear slide type mixer control. An output module elevates the audio to +18 dBm out and provides a master level control.

A cue/phone module provides the cue amplifier, speaker and level control. Also on this module are located the phones selector and level controls. A two watt amplifier provides headphone power. The monitor level and input selector switch are located on this module.



The modules are connected into the master board located in the main frame, as is the monitor/power supply unit. This plug-in unit contains the monitor amplifier, muting relays, and all power supply components. There are no active electronics that cannot be un-plugged.

Optional extender modules are offered to allow expansion of input capabilities for remotes and high level sources.

All functions are completely operable by remote control-- the only console with this feature on the market. Functions are activated by illuminated push button switches.

The SLIDE-MOD is totally versatile, can be used to control and activate other station functions such as cartridge machines.

OTHER FEATURES:

Inputs: Each input module maintains three selectable inputs.

Outputs: Program, audition, monitor, control room, monitor Studio A, monitor Studio B, Cue Headphone.

Mute Relays: Three, with one for each monitor output. Relays may function with any module, in any order.

Mixers: Conductive plastic linear pots.

PGM, AUD/CUE Switching: Momentary push button--illuminated. Located above mixer pot.

Monitor: Ten watt monitor amp may be switchable to monitor, program, and cue, or external air. Monitor control is provided.

Cue: Each input module may be switchable to Cue Amp. A level control and built-in cue speaker are provided. The CUE AMP may be muted by any input module.

Phones: The two watt headphone amplifiers may be switched to program, audition, cue or external air, with level control provided.

Modules: All mixer modules are removable by unplugging without affecting operation of remaining assembly. Master boards may also be unplugged for ease of servicing and expandability. Modules are black-brushed-anodized, with white lettering.

Frame: Frame consists of all steel, welded construction. Exterior finish is blue with walnut end structures. VU meter frame is clear-brushed-anodized aluminum.

SPECIFICATIONS:

Line Input Modules: 3 inputs, transformer balanced, 600 ohms, -20 dBm nominal, +10 dBm maximum, maximum gain 44 dB.

Microphone Input Modules: 3 inputs, transformer balanced, 150 ohms, -65 dBm nominal, -38 dBm maximum, maximum gain 92 dB

Outputs:

Program: 600 ohm, transformer balanced; +8 dBm nominal, +18 dBm maximum
Audition: 600 ohm, transformer balanced; +8 dBm nominal, +18 dBm maximum (BESL-1006)
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.
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, +18 dBm output into 600 ohms.
Monitor: 1% THD or less at rated load and output

Signal to Noise:

Program and Audition: Noise (unweighted) 70 dB below +8 dBm output, referenced to -50 dBm input

Muting: Three Relays

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 module.
External Contacts (On-Air lights, etc.): 1 A. at 125 VAC; .5 A. at 250 VAC; resistive loads.

Power Requirements: 110 Watts, 115V or 230V, 50/60 Hz

Size: 37.5" wide X 20" deep X 12" high

Options:

230 VAC/50/60 Hz operation

Spotmaster

AUDIO CONSOLE

Model BEML-1006

- 6 to 10 linear mixer monaural, dual channel console
- Plug-in mixer modules for microphone or line inputs
- Audio switching remote controllable
- Long-life conductive plastic slide faders

The BEML-1006 Series is a highest quality full dual channel monaural audio console. Selection of audition or program channels is by FET's --fast, quiet, distortion-free, and remote controllable. Ideal for automation systems. Both output channels are continually monitored by individual 3-1/2" illuminated VU meters. Both audition and program channels have transformer-balanced outputs rated at over +18 dBm peak, and are on interchangeable plug-in P. C. cards.

The BEML-1006 has full built-in monitoring capabilities. The ten watt monitor amplifier delivers sharp, true sound to three individually muted outputs. The cue amplifier (relay muted) drives a built-in or external speaker.

The 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, soldered) through two access channels in console bottom.

Specifications

Line Input Modules:

3 inputs, transformed balanced
600 ohms, -20 dBm nominal, +10 dBm maximum, maximum gain 44 dB

Microphone Input Module:

3 inputs, transformer balanced
150 ohms, -65 dBm nominal, -38 dBm maximum, maximum gain 92 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 per channel; will drive 8 or 16 ohms

Cue:

0.5 Watt RMS, 8 ohms; internal speaker

Headphones:

0.5 Watt RMS; 8 or 16 ohms, or HiZ; front panel jack



BROADCAST ELECTRONICS, INC.
— A FILMWAYS COMPANY —

8810 BROOKVILLE ROAD • SILVER SPRING, MD. 20910
PHONE 301-598-4983 • CABLE "SPOTMASTER"

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, 30 Hz to 20 KHz @ 1 Watt output into 8 ohms

Distortion:

Program and 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 and Audition:

Noise (unweighted) 72 dB below +8 dBm output, referenced to
-50 dBm input

Muting: Three Relays

Monitor Muting: Monitor outputs through each relay

Switching: 24 Volts provided for external control relay

External Contacts (On-Air lights, etc.): 1 A. at 125 VAC;
.5 A. at 250 VAC; resistive loads

Power Requirements:

110 Watts, 115V or 230V, 50/60 Hz

Size:

37.5" wide X 20" deep X 12" high

Options

230 VAC/50/60 Hz operation

March, 1974

TELCO 80 - TELEPHONE MESSAGE SYSTEM - TELCO 90

TELCO 80 for use with:

400 Series
500 Series
605/610

TELCO 90 for use with:

Ten/70
Three/70
303/305

The TELCO 80/90 units provide audio and cartridge recorded-reproducer control interfaces with the Western Electric RDM/RDL Recorder Connectors. They give the user the option of fully automatic or manual announcement play and/or message record operation. These capabilities are totally unique in telephone/tape cartridge interface devices:

- Automatic playing of a pre-recorded announcement, or two announcements in sequence (from two different decks or machines).
- Automatic playing of a pre-recorded announcement and then recording a message of open or limited length from caller.
- Automatically answer and directly record a message from the caller.
- Manually play cartridge or record cartridge during a telephone conversation with a single button.
- All functions provided with two permanently connected cartridge units--no patching or reconnection.
- Each incoming call or manual operation is automatically tallied, regardless of operating mode.
- Power totally derived from the connected SPOTMASTER machines; each machine can function with the TELCO unit completely independent of the other (disconnected, power off, unloaded, or disabled, etc.).
- Absolutely no interference with the connected telephone when in the Manual mode.
- Each TELCO 80/90 can be used with any SPOTMASTER model in the correct series (see above) simply by changing the connecting adaptor cable; no wiring changes to the TELCO are necessary (Note: one-time wiring changes may be necessary on machine remote control connector in some earlier models, for use with TELCO 80/90).



CONTROLS:

- Manual/Automatic Select:** Selects operational mode. Will allow Recorder connector to start cartridge machine, seize phone line, and connect audio path in Auto mode, when ringing voltage is sensed.
- Manual Play:** Connects audio to phone line and starts cartridge deck in play position. Phone line is held by TELCO even if handset is replaced in cradle, until message is over or distant party disconnects (most newer exchanges).
- Manual Record:** Same as Manual Play, but record cartridge deck is activated. Unless disabled, this deck will be in record mode and will hold line until manually stopped, automatically re-cues, or distant party disconnects.
- Auto Play Only:** Starts playback deck and seizes line when ringing voltage is sensed. The line is released when the cartridge re-cues. The TELCO will only seize the line if a cartridge is loaded and actually starts.
- Auto Play/Record:** Will play the pre-recorded announcement as in Play Only mode. When the TELCO detects the 150 Hz (Q1) closure from the playback deck, the audio direction of the recorder connector is reversed (RDL version), the record deck is started in the record mode, and a tone is sounded to the distant party. The TELCO can be wired so that the playback deck re-cue disconnects the phone line and stops the recording, or the distant party disconnect or recording cartridge re-cue can disconnect the line.
- If the second deck is a play only deck, and the RDM (bi-directional audio) recorder connector is used,

two different announcements can be aired in sequence. The second deck re-cue will disconnect the phone line.

Auto Record Only:

The ring-up voltage will start the record deck directly, and switch audio to its line input. The function is the same as the second half of the Play/Record mode.

APPLICATIONS:

The SPOTMASTER TELCO series has found its heaviest usage in public or restricted public information phone-in systems. High quality audio is presented to the caller automatically. TELCO 80/90 adds the capability of presenting two different messages in sequence. This means that short-term information can be updated easily without re-recording more permanent data. Top-Ten playlists combined with weather reports or a sponsor's message are such a combination. Or daily feature stories and hourly market reports. Business groups and government agencies use the TELCO to keep their members, the press, or the public informed on important issues, at the convenience of the caller. At any hour of the day, from anywhere in the country.

The automatic Play/Record or Record-Only functions make the TELCO 80/90 systems information gathering as well as disseminating systems. No important news or business information need ever be lost because no one was around to answer the telephone. And information recorded on cartridges is easy to retrieve. Each segment or call is separated by a stop-tone for easy indexing. Information can be preserved by simply changing cartridges; no dubbing or re-recording is necessary. The quality is always perfect.

The TELCO system is equally functional manually. Newsmen, salesmen, businessmen, can all present pre-recorded stories, data, or presentations during a telephone conversation with the touch of a button. It is just as easy to record part or all of any call. One receptionist or operator can handle dozens of information request lines when each line has a TELCO unit and cartridge reproducer, and all of the information likely to be requested has been pre-recorded. The caller is assured of hearing all the necessary information in the proper order, without hurry or interruption.

In short, SPOTMASTER TELCO systems can be used wherever a telephone is a necessary business tool.

Spotmaster

Equipment Price List
(Domestic U.S.)

EFFECTIVE MARCH 1, 1974



BROADCAST ELECTRONICS
— A FILMWAYS COMPANY —

8810 BROOKVILLE ROAD ■ SILVER SPRING, MARYLAND 20910 ■ PHONE 301-588-4983 ■ CABLE "SPOTMASTER"

TWX 710-825-0432

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
TEN/70 SERIES				
1070RP	900-1070	Monaural record/playback, compact unit	\$ 1,249.00	B
1070P	900-1071	Monaural playback unit, compact	897.00	B
1070RP/S	900-1073	Stereo record/playback unit, with PHASE-LOK Head Bracket	1,550.00	B
1070P/S	900-1074	Stereo playback unit with PHASE-LOK Head Bracket	1,079.00	B
1070RP/DL	900-1072	Delay unit, record/playback, compact (single speed)	1,335.00	B
1070SDL	900-1075	Stereo Delay Programmer (single speed)	1,750.00	B
	912-1020	Installed Cue Trip I Tone Generator (150 Hz for F-F Auto-Cue automatic sequencing)	45.00	B
	912-1022	Installed Cue Trip II Tone Generator (8 KHz) for auxiliary use	45.00	B
	910-2010	Installed Cue Trip I Tone Sensor (150 Hz)	55.00	B
	910-2011	Installed Cue Trip II Tone Sensor (8 KHz)	55.00	B
		NOTE: Cue Trip Options not available for Model 1070SDL.		
	830-0500	Installed Microphone pre-amplifier kit (for RP and RP/DL models)	65.00	B
	---	Installed Power Conversion; 115 VAC/50 Hz - 220 - 240V/50 Hz	40.00	B
RA70	921-1070	Rack Panel Adaptor for (2) 1070 units or (1) 1070 and (1) RM10	61.00	C
	489-0464	Chassis Slides for rack adaptor, (pair)	28.00	C
RC-1070	904-1070	Remote Control, all functions; suitable for adaption to console or rack mounting	109.00	C
	944-1071	Cabling for above, supplied pre-wired to connectors; \$20.00. PLUS	.90/ft.	C
PL-HB1	952-7600	Stereo PHASE-LOK Head Bracket, playback, less heads	45.00	C
PL-HB2	952-7601	Stereo PHASE-LOK Head Bracket, record/playback, less heads	55.00	C
RM10	818-0010	Cartridge Rack (10 slot storage) for use with 921-1070 adaptor	43.00	C
EB-103	919-1030	Test extender PCB Module	24.00	F

THREE/70 SERIES

370 A	900-3700	Spacesetter compact monaural reproducer	499.00	B
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INSTALLED OPTIONS

	370-0030	600 ohm balanced output transformer	22.00	B
	---	Power Conversion; 115V, 220V, 240V/50 Hz	40.00	B
	---	3.75 ips conversion (only @ 60 Hz)	N/C	
	921-1070	Rack Adaptor (holds 3 units)	61.00	C
	489-0464	Chassis slides for above	28.00	C

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
500D & 400B SERIES				
500D	900-0500	Monaural record/playback unit, compact	\$ 797.00	B
500DR	901-0500	Monaural record/playback unit, rack mounting	830.00	B
505D	900-0505	Monaural playback unit, compact	598.00	B
505D/A	900-0507	Monaural playback unit with built-in amplifier and headphone monitoring system	705.00	B
505DR/A	901-0507	As per above, for rack mounting	735.00	B
505DR	901-0505	Monaural playback, rack mounting with slides	630.00	B
500B/SA	900-0501	Stereo record/playback unit, compact	1,150.00	B
500BR/SA	901-0501	Stereo record/playback unit, rack mounting with slide	1,235.00	B
505B/SA	900-0506	Stereo playback unit, compact	770.00	B
505BR/SA	901-0506	Stereo playback unit, rack mounting with slides	840.00	B
500D/DL	900-0502	Delay, record/playback unit, compact	880.00	B
500DR/DL	901-0502	Delay, record/playback unit, rack mounting with slides	950.00	B
400B	900-0400	Monaural record/playback unit, compact	625.00	B
405B	900-0405	Monaural playback unit, compact	455.00	B
	--	Installed Cue Trip I Tone Generator (150 Hz)	39.00	B
	--	Installed Cue Trip II Tone Generator (8 KHz) for 500 Series only	39.00	B
	--	Installed Cue Trip I Tone Sensor (150 Hz)	61.00	B
	--	Installed Cue Trip II Tone Sensor (8 KHz) for 500 Series only	61.00	B
	911-3010	Installed Microphone Preamplifier	32.00	B
	417-0303	(Optional with 400A, 500CR Series)		
	370-0026	Installed Balanced Output Transformer (optional with 400 Series)	22.00	B
	--	Installed Power Conversion; 115V/50 Hz - 220 - 240V/50 Hz	39.00	B
FIELD INSTALLATION KITS FOR 500C, 505C, 500CR, 505CR				
	830-0100	Field Installation Kit, Cue Trip I Sensor (trade-in credit for unit under warranty)	127.00	C
	830-0101	Field Installation Kit, Cue Trip I Generator	36.80	C
	830-0200	Field Installation Kit, Cue Trip II Sensor	60.00	C
	830-0201	Field Installation Kit, Cue Trip II Generator	36.00	C
FIELD INSTALLATION KITS FOR 400A, 405A, 500BS, 505BS, 500BRS, 505BRS				
	830-0100A	Field Installation Kit, Cue Trip I Sensor	60.00	C
	830-0101	Field Installation Kit, Cue Trip I Generator	36.00	C
FIELD INSTALLATION KITS FOR 500BS, 505BS, 500BRS, 505BRS				
	830-0200	Field Installation Kit, Cue Trip II Sensor	60.00	C
	830-0201	Field Installation Kit, Cue Trip II Generator	46.00	C
ACCESSORIES				
BE102	904-0102	Remote Control, 3 start/stop functions w/15 ft. cable	49.00	C
	944-1020	Extension Remote Control Cable; 0.30 per ft., PLUS		C
D2ADJ-1	830-0010	Adjustable Head Bracket Kit for (1) head	18.00	C
D2ADJ-2	830-0020	Adjustable Head Bracket Kit for (2) heads	22.00	C

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
MINI SERIES				
MULTI-CHANNEL PLAYBACK				
303D		MONOPHONIC, Three-Deck Playback Series		
	902-3036	1 Output w/Audio Switcher	\$ 1,620.00	C
	902-3037	1 Output w/Audio Switcher, Cue Trip I Sensor (150 Hz)	1,830.00	C
	902-3038	1 Output w/Audio Switcher, Cue Trip I, II Sensor (150 Hz, 8 KHz)	1,930.00	C
	902-3030	3 Isolated Outputs	1,700.00	B
	902-3031	3 Isolated Outputs, w/Cue Trip I Sensor (150 Hz)	1,925.00	B
	902-3032	3 Isolated Outputs, w/Cue Trip I, II Sensor (150 Hz, 8 KHz)	2,200.00	B
303D		STEREOPHONIC, Three-Deck Playback Series		
	902-3046	1 Stereo Output w/Audio Switcher	2,080.00	B
	902-3047	1 Stereo Output w/Cue Trip I Sensor (150 Hz)	2,295.00	B
	902-3048	1 Stereo Output w/Cue Trip I, II Sensor (150 Hz, 8 KHz)	2,395.00	B
	902-3040	3 Isolated Stereo Outputs	2,180.00	B
	902-3041	3 Isolated Stereo Outputs, w/Cue Trip I Sensor (150 Hz)	2,395.00	B
	902-3024	3 Isolated Stereo Outputs, w/Cue Trip I, II Sensor (150 Hz, 8 KHz)	2,495.00	B
305D		MONOPHONIC, Five-Deck Playback Series		
	902-3056	1 Output w/Audio Switcher	2,370.00	B
	902-3057	1 Output w/Audio Switcher, Cut Trip I Sensor (150 Hz)	2,665.00	B
	902-3058	1 Output w/Audio Switcher, Cue Trip I, II Sensor (150 Hz, 8 KHz)	2,835.00	B
	902-3050	5 Isolated Outputs	2,470.00	B
	902-3051	5 Isolated Outputs, w/Cue Trip I Sensor (150 Hz)	2,765.00	B
	902-3052	5 Isolated Outputs, w/Cue Trip I, II Sensor (150 Hz, 8 KHz)	2,935.00	B
305D		STEREOPHONIC, Five-Deck Playback Series		
	902-3066	1 Stereo Output, w/Audio Switcher	2,940.00	B
	902-3067	1 Stereo Output, w/Cue Trip I Sensor (150 Hz)	3,240.00	B
	902-3068	1 Stereo Output, w/Cue Trip I, II Sensor (150 Hz, 8 KHz)	3,505.00	B
	902-3060	5 Isolated Stereo Outputs	3,165.00	B
	902-3061	5 Isolated Stereo Outputs, w/Cue Trip I Sensor (150 Hz)	3,465.00	B
	902-3062	5 Isolated Stereo Outputs, w/Cue Trip I, II Sensor (150 Hz, 8 KHz)	3,640.00	B
OPTIONS				
	904-0303	303C Remote Control	80.00	C
	904-0305	305C Remote Control	95.00	C
	944-3050	Cabling for above, pre-wired to connectors; \$20.00 PLUS	.90/ft.	C
RA33	921-0033	Rack Panel Adaptor for (3) 303 units	215.00	C
RA35	921-0035	Rack Panel Adaptor for (3) 305 units	245.00	C
ESD-15	904-0015	1 to 15 Deck Pre-Select Sequencer	310.00	C
	---	Field Installed Audio Switcher for 303 Series	115.00	C
	---	Field Installed Audio Switcher for 305 Series	110.00	C
EB-102	919-1020	Test Extender PCB Module	25.00	F
	---	Installed Power Conversion; 220/240V, 50 Hz	35.00	B
	---	Installed Power Conversion; 115V/50 Hz	30.00	B

Note: All Mini-Series units furnished with walnut Formica covered wooden side panels unless when ordered for rack mounting.

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
FIVE SPOT/TEN SPOT				
605C	902-0605	5 Channel Playback unit in Formica Cabinet w/Emitter Follower Output	\$ 1,895.00	B
605C	902-0605A	5 Channel Playback unit in Formica Cabinet w/Balanced Transformer Output	1,995.00	B
605CR	902-0606	5 Channel Playback unit, Rack Mounting, w/Cartridge Storage Cubicle, Emitter Follower Output	1,895.00	B
605CR	902-0606A	5 Channel Playback unit, Rack Mounting, w/Cartridge Storage Cubicle and Balanced Transformer Output	1,995.00	B
610CR	902-0610	10 Channel Playback unit, Rack Mounting, Emitter Follower Output	3,550.00	B
610CR	902-0610A	10 Channel Playback unit, Rack Mounting w/Balanced Transformer Output	3,750.00	B
610CX	SP-205	Automatic Audio System w/6 playback and 2 record/playback channels	5,095.00	B
610CX	SP-205-1	As per above, supplied with pre-wired 51" high control console	5,927.00	B
	910-0041	Installed Cue Trip I Sensor (1 per channel)	64.00	B
	912-0050	Installed Cue Trip II Sensor (1 per channel)	64.00	B
	---	605B Power Conversion, 115V/50 Hz (installed)	34.00	B
	---	605B Power Conversion, 220V/50 Hz (installed)	45.00	B
	---	610B Power Conversion, 115V/50 Hz (installed)	62.00	B
	---	610B Power Conversion, 220V/50 Hz (installed)	84.00	B
	830-0100	Field Installation Kit for Cue Trip I Sensor	64.00	C
	830-0200	Field Installation Kit for Cue Trip II Sensor	64.00	C
SW5B	904-0005	Audio Switcher; switches any of five audio channels to pgm line (transformer output)	220.00	C
BE 106	904-0106	Remote Control, 5 start/stop functions and sequencing indicator, illuminated buttons w/15 ft. cable	285.00	C
MRM-600A	904-0600	Record Module, plug-in replacement for any 605/610 playback deck, w/record head	255.00	C
	949-0605	Cue Trip Sequencing Cable for 605B	10.50	C
EB-101	919-1010	Test Extender PCB Module	23.00	F
TELEPHONE ANSWERING ACCESSORIES				
III/B	904-0003	Telco Telephone Answering Accessory for 400/500 and 370 Series	110.00	C
III/C	904-0006	Telco Telephone Answering Accessory w/manual-automatic switch & remote start for 400/500 and 370 Series	135.00	C
IV/B	904-0007	Telco for TEN/70 Series	125.00	C
IV/C	904-0008	As per 904-0006 for TEN/70 Series	139.00	C
TC-4	290-0404	Telco Automatic Counter	25.00	C
TELCO 80	904-0080	Record/Play Telephone Answering Interface System for 400/500 Series Cartridge Machines	190.00	C
TELCO 90	904-0090	Record/Play Telephone Answering Interface System for 1070 Series Cartridge Machines	215.00	C

MODEL	STOCK NO.	DESCRIPTION	PROFESSIONAL	
			NET	CODE
CARTRIDGE WINDERS AND ACCESSORIES				
BETM-100	904-0001	Tape Cartridge Winder	\$ 150.00	C
BETM-200	904-0002	Tape Cartridge Winder w/Timer	175.00	C
	---	Power Conversion to 115/230V, 50 Hz	40.00	C
BET-50	830-0001	Calibrated Tape Timer	49.00	C
3M156	823-1800	Scotch Lubricated Tape, 1800 ft., 7" Reel	7.50	E
3M156	823-3600	Scotch Lubricated Tape, 3600 ft., NAB Hub	14.40	E
	823-1700	Audiotape 17 Lubricated Tape, 1800 ft. Reel	7.00	E
	823-3601	Audiotape 17 Lubricated Tape, 3600 ft. Hub	13.95	E
TS7S	824-0007	Tape Splicer	8.90	E
TST376	824-0376	Mylar Splicing Tape (3/8 x 275")	1.10	E
200C	820-0200	Bulk Tape Eraser, Hand Held 115V, 50/60 Hz	30.00	E
220C	820-0220	Bulk Tape Eraser, Hand Held 230V, 50/60 Hz	33.00	E
300C	820-0300	Bulk Tape Eraser, Heavy Duty, Table Top 115V, 50/60 Hz	55.00	E
330C	820-0301	Per above; 220V, 50/60 Hz	58.00	E
	820-0040	Tape Head Demagnetizer, 115V, 50/60 Hz	9.95	E
BE903	832-9031	Cleaning Fluid, 4 oz.	1.75	C
BE903	832-9032	Cleaning Fluid, 16 oz.	5.90	C
BE903	832-9033	Cleaning Fluid, 32 oz.	7.90	C
TEST TAPES (in cartridges)				
	808-0001	Monaural Head Alignment Tape (10 KHz)	11.00	E
350STA	808-0004	Stereo Frequency Response & Alignment Tape (50 Hz to 15 KHz)	39.00	E
	808-0003	NAB Mono Frequency Response & Test Tape	20.00	E
CARTRIDGE RACKS				
RM20	818-0020	Stores 20, Series 300 Cartridges, Rack Mounting (5 1/4" high)	47.00	C
RS25	816-0025	Wire Metal Rack Section, holds 25 cartridges	14.50	C
RM100	810-0100	Wall Mounting, Formica Covered, holds 100 cartridges	72.00	C
DM20	812-0655	Wall or Table Mounting; walnut cabinet, holds 20 cartridges	14.75	B
DM40	812-0650	Table Top Lazy Susan, holds 40 cartridges	33.00	B
DM72	812-0072	Lazy Susan Module, Formica Covered for table top use, holds 72 cartridges	86.00	C
DM200	812-0200	As per above, holds 200 cartridges	130.00	C
LS100	812-0100	Lazy Susan Wire Metal unit for table top use, holds 100 cartridges	90.00	C
LS200	814-0200	Lazy Susan Wire Metal unit, floor stand w/heavy duty casters, holds 200 cartridges	162.00	C
SPLICE DETECTOR				
BESD-500	829-0001	Automatic Splice Detector and Bulk Eraser	390.00	E

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
FIDELIPAC CARTRIDGES				
*LOADED CARTRIDGES (at 7.5 ips)				
5% DISCOUNT ON QUANTITIES OF 100 OR MORE CARTS.				
300 Series	800-0013	20 Seconds (13 feet)	\$ 2.00	C
	800-0025	40 Seconds (25 feet)	2.05	C
	800-0044	70 Seconds (44 feet)	2.10	C
	800-0063	100 Seconds (63 feet)	2.25	C
	800-0088	140 Seconds (88 feet)	2.35	C
	800-0132	3.5 Minutes (132 feet)	2.50	C
	800-0207	5.5 Minutes (207 feet)	2.90	C
	800-0320	8.5 Minutes (320 feet)	3.70	C
	800-0394	10.5 Minutes (394 feet)	3.90	C
600	801-0600	16 Minutes (600 feet)	6.25	C
1200	802-1163	31 Minutes (1163 feet)	10.45	C

**Cartridges loaded to any length - upon request. For pricing, use next highest standard cartridge price.*

EMPTY CARTRIDGES

300	800-0000	Fidelipac Unloaded Cartridge	1.60	C
600	801-0000	Fidelipac Unloaded Cartridge	2.80	C
1200	802-0000	Fidelipac Unloaded Cartridges	3.95	C

DELAY CARTRIDGES

300DL	800-0004	6 Second Delay Cartridge		
	---	5 Seconds to 2 Minutes (specify length)	5.25	C
	---	2:01 Minutes to 5 Minutes (specify length)	7.80	C
	---	+8:31 Minutes Prices on request		

AUDIOPAK CARTRIDGES (A2)

	800-1000	Empty Audiopak	1.75	C
	800-1013	20 Seconds (13 feet)	2.00	C
	800-1025	40 Seconds (25 feet)	2.00	C
	800-1044	70 Seconds (44 feet)	2.05	C
	800-1056	90 Seconds (56 feet)	2.10	C
	800-1063	100 Seconds (63 feet)	2.20	C
	800-1088	140 Seconds (88 feet)	2.25	C
	800-1094	2.5 Minutes (94 feet)	2.30	C
	800-1132	3.5 Minutes (132 feet)	2.45	C
	800-1207	5.5 Minutes (207 feet)	2.85	C
	800-1320	8.5 Minutes (320 feet)	3.65	C
	800-1394	10.5 Minutes (394 feet)	3.80	C

TAPE TAGS (8 per sheet)

834-0000	Black			
834-0001	Brown	Quantity		
834-0002	Red	1 to 49 Sheets (per sheet)	.14	C
834-0003	Orange	50 to 299 Sheets (per sheet)	.10	C
834-0004	Yellow	300 to 499 Sheets	9.00/100 Shts.	C
834-0005	Green	+500 Sheets	8.00/100 Shts.	C
834-0006	Blue			
834-0007	Purple			

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
AUDIO AMPLIFIERS				
CLE-500	837-0500	Spotmaster Sound Britener Compressor-Limiter Expander	\$ 700.00	C
CLA-20-40	837-4000	Compressor-Limiter Amplifier, rack mounting Mono (order 2 matched units for Stereo)	480.00	C
MA-10	837-0010	Monitor Amplifier; 10 watt, rack mounting	100.00	C
PLA-20	837-0020	Program/Line Amplifier; +20 dBm, rack mounting	150.00	C
AD1B	903-0010	Audio D.A.; 1 in, 5 out, rack mounting Emitter Follower Output	365.00	C
AD1B/T	903-0011	Audio D.A.; 1 in, 5 out, rack mounting Balanced Transformer Outputs	440.00	C
AD1BX	903-0012	5-Channel Extender for use with AD1B rack mounting, Emitter Follower Output	260.00	C
AD1BX/T	903-0012	5-Channel Extender for use with AD1B, rack mounting, Balanced Transformer Output	375.00	C
SPOTMASTER MODULAR AMPLIFIER GROUP				
BEA-400	837-0400	Main Frame w/power supply & provision for four modules	170.00	C
BELM-100	837-0401	Line Amplifier Module	52.00	C
BEPM-200	837-0402	Power Amplifier	52.00	C
SPOTMASTER AUDIO CONSOLE/MIXERS				
4BEM-50	838-0450	SPOTMASTER 4-Mixer Monophonic Console	425.00	E
5BEM-100	838-0510	SPOTMASTER 5-Mixer Monophonic Console, sealed Pots	750.00	C
5BEM-200	838-1511	SPOTMASTER 5-Mixer Deluxe Monophonic Console, Daven Type Att., Pushbutton	1,195.00	C
5BES-100	838-0520	SPOTMASTER 5-Mixer Stereophonic Console, Sealed Pots	1,050.00	C
5BES-200	838-0521	SPOTMASTER 5-Mixer Deluxe Stereophonic Console, Daven Type Attenuators	1,995.00	C
8BEM-100	838-0810	SPOTMASTER 8-Mixer Monophonic Console, Sealed Pots	1,295.00	C
8BEM-200	838-0811	SPOTMASTER 8-Mixer Deluxe Monophonic Console Daven Type Attenuators	2,295.00	B
8BES-100	838-0820	SPOTMASTER 8-Mixer Stereophonic Console, Sealed Pots	1,895.00	C
8BES-200	838-0821	SPOTMASTER 8-Mixer Deluxe Stereophonic Console, Daven Type Attenuators	3,245.00	B
AUDIO CONSOLE OPTIONS				
BE-10A		Rack Adaptor for 4-Mixer Only	45.00	E
BE-11A		230/50 Hz for all units	44.00	E
BE-12A		Extender Panel for 100 Series Only	425.00	E
BE-13A		Extender Panel for 200 Series Only	625.00	E
BE-14A		Mono Matrix Card for 5BES-100 and 8BES-100	48.00	E
BE-15A		Line Amplifier for Audition Channel 5BES-100 and 8BES-100	48.00	E
BE-16A		Second Muting Relay for 8BES-100	13.00	E
MICROPHONE MIXERS				
M-67	828-0067	Shure microphone mixer	162.00	C
M-68	828-0068	Shure microphone mixer	84.00	C

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
		RECEIVER		

AA-1	829-0002	Miratel Air Alert 1 EBS Receiver	199.95	E
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CONSOLE FURNITURE, FRENCH BLUE TOP WITH PECAN CABINETS

833-0001	SPOTMASTER Single Turntable Floor Cabinet (22" x 22" x 29")	175.00	C
833-0002	SPOTMASTER Dual Section Floor Cabinet (42" x 22" x 29")	275.00	C
833-0003	SPOTMASTER Console Desk Top (80" x 24" x 1½")	105.00	C
833-0101	SPOTMASTER Leg, chrome, tapered (4 req'd. for free-standing console section)	9.00	C

Note: Add \$15.00 for turntable cut-out

ON-AIR STUDIO LIGHTS

835-0001	ON-AIR Light, Vertical format	\$ 47.00	C
835-0002	ON-AIR Light, Horizontal format	48.00	C
835-0003	AUDITION Light, Vertical format	48.00	C
835-0004	AUDITION Light, Horizontal format	48.00	C

STUDIO CLOCKS (Battery Powered — C Cell)

BECL-100	835-0100	SPOTMASTER Quartzmatic, white face	59.00	C
BECL-200	835-0100A	SPOTMASTER Quartzmatic, tan face	59.00	C

PROFESSIONAL TURNTABLES, 12"

821-0001	SPOTMASTER, Studio Pro-B, direct-drive 2 speed turntable (33-1/3, 45) w/hys. syn. motor	233.00	E
821-0007	SPOTMASTER, CueMaster, direct-drive 3 speed turntable (33-1/3, 45, 78) w/hys. syn. motor)	214.00	E
---	Power Conversion to 50 Hz	35.00	E
821-0008	Special color felt pad and custom painted	on request	E

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
SPOTMASTER TURNTABLE PREAMPLIFIERS				
BETMS-100	827-0100	SPOTMASTER Monaural/Stereo Equalized preamplifier (less transformer output) phase reversal features	\$ 120.00	C
BETMS-200	827-0200	SPOTMASTER Monaural/Stereo Equalized preamplifier w/transformer output	148.50	C
		230/50 Hz Installed	44.00	E
MICROTRACK (GRAY) TONE ARMS				
303	821-0303	12" Micro-Track Arm	79.50	E
306	821-0306	16" Micro-Track Arm	89.50	E
206S	821-0206	12" Tone Arm, Viscous damped	74.50	E
206SG	821-0207	12" Tone Arm, for VRII Cartridge	74.50	E
CARTRIDGES, TONE ARM				
500AA	821-5002	Stanton Cartridge, .5 mil stylus	19.25	C
500AL	821-5000	Stanton Cartridge, .7 mil (extra heavy duty)	16.50	C
681A	821-6810	Stanton Cartridge, calibration standard, .7 mil stylus	36.30	C
681EE	821-6812	Stanton Cartridge, .2 x .7 mil elliptical stylus	39.60	C
M44-5	821-4450	Shure Cartridge, .5 mil stylus	21.95	C
M44-7	821-4470	Shure Cartridge, .7 mil stylus	19.95	C
M44-C	821-4400	Shure Cartridge, heavy tracing force, .7 mil	17.95	C
REPLACEMENT STYLI				
D5107A	821-5003	Stylus for 500A Cartridge	6.60	E
D5105AA	821-5004	Stylus for 500AA Cartridge	9.90	E
D5107AL	821-5001	Stylus for 500AL Cartridge	6.60	E
D6807A	821-6811	Stylus for 681A Cartridge	16.50	E
D6800EE	821-6813	Stylus for 681EE Cartridge	19.80	E
N44-5	821-4451	Stylus for M44-5 Cartridge	11.00	E
N44-7	821-4471	Stylus for M44-7 Cartridge	9.75	E
N44-C	821-4401	Stylus for M44-C Cartridge	9.70	E
(Additional Models; Other Manufacturers Available)				
REEL-TO-REEL TAPE RECORDERS SPOTMASTER/REVOX — MARK IIIB —				
1301BR	822-1301	SPOTMASTER/Revox, 10½" reel-to-reel Tape Recorder, Stereo/Mono 3.75 - 7.5 ips, rack mount 14" with aluminum face plate, full track	\$ 1,059.00	E
1301BR/HS	822-1301A	SPOTMASTER/Revox, Same as 1301BR except high speed	1,169.00	E
1302BR	822-1302	SPOTMASTER/Revox, 10½" reel-to-reel Tape Recorder, Stereo/Mono 3.75 - 7.5 ips, rack mount 14", with aluminum face plate	1,009.00	E
1302BR/HS	822-1302A	SPOTMASTER /Revox, Same as 1302BR except high speed	1,119.00	E

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
REEL-TO-REEL TAPE RECORDERS (cont'd.)				
1304BR	822-1304	SPOTMASTER/Revox, 10½" reel-to-reel Tape Recorder, Stereo/Mono 3.75 - 7.5 ips, rack mount 14", with aluminum face plate	\$ 1,009.00	E
1304BR/HS	822-1304	SPOTMASTER/Revox, Same as 1304BR except high speed	1,119.00	E
1101C	822-1101	Revox Tape Deck, Same as 1301BR except desk mount with cabinet	1,009.00	E
1102C	822-1102	Revox Tape Deck, in walnut cabinet (2 TR)	949.00	E
1104C	822-1104	Revox Tape Deck in walnut cabinet (4 TR)	949.00	E
1122C	822-1122	Revox Tape Deck in walnut cabinet w/8 watt dual power amplifier (2 TR)	1,075.00	E
1124C	822-1124	Same as 1122C except 4 TR	1,075.00	E
1222S	822-1222	Revox Tape Deck in suitcase, w/ amplifiers and speakers 2 TR	1,099.00	E
1224S	822-1224	Same as 1222S except 4 TR	1,099.00	E
FACTORY INSTALLED OPTIONS:				
HS77		High Speed Option, 7.5 - 15 ips, add HS77 to Model No. and . . . ADD	100.00	E
Full Track		Full Track Head Option; only available with high speed . . . ADD	110.00	E
Sel-Sync		Allows separate synchronized recording of 2 master channels in addition to existing internally wired sound-on-sound, echo, etc. . . ADD	125.00	E
Variable Pitch		External Potentiometer Control of servo motor (-10 to +15% variation of selected speed) . . . ADD	75.00	E
Dolby B		Available only with standard speed units (3.75 - 7.5 ips) . . . ADD	200.00	E
OPTIONAL ACCESSORIES:				
---	822-0001	NAB Locking Reel Adaptors (Pair)	20.00	E
---	822-0005	10½" Empty Reels, ¼" Centers	3.95	E
1605	822-1605	Mechanical Remote Control w/Self-locking play-record button, 15 ft. cable	35.00	E
1610	822-1610	As per 1605, w/30 ft. cable	39.00	E
1705	822-1705	Illuminated Remote Control complete w/transistorized lamp control circuitry for remote indication of actual machine status	49.00	E
1705A	822-1705A	As per 1705, with automatic rewind function	65.00	E
---	822-0006	Plug-in Power Amplifiers, (2 furnished), each 8 watt RMS	100.00	E
---	822-0002	Service Manual	10.60	E
---	822-0007	Tinted Dust Cover	15.00	E
---	822-0008	Waterproof Cover	9.95	E
3M150	823-1502	Scotch Audio Tape, 1.0 mil on 1800 ft. reel, ¼" Centers	6.50	E
Reel-to-Reel MRL Precision 1/4 Inch Test Tapes				
T-104	823-1040	Frequency response test tape on 7" reel; NAB equalized, 7.5 ips, full track	29.90	E
J-105	823-1050	Per above, @ 15 ips	29.90	E
F-101	823-1010	Per above, @ 3.75 ips	29.90	E
T-102	823-1020	Per above, IEC standards equalized, 7.5 ips	29.90	E
A-108	823-1080	Azimuth error test tape, 7" reel, 2 track	33.00	E
A-109	823-1090	Per above, 4 track	33.00	E
Note: All Test Tapes furnished with test data chart and are serialized.				

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
MICROPHONES				
Electro-Voice				
635A	825-0635	Microphone, omnidirectional dynamic	\$ 56.70	E
654A	825-0654	Microphone, omnidirectional slim-trim	72.00	E
664A	825-0664	Microphone, cardioid, dynamic	57.00	E
649B	825-0649	Microphone, Lavalier	73.50	E
RE10	825-0010	Super Cardioid (80 to 13 KHz)	99.60	E
RE15	825-0015	Super Cardioid, highest quality (80 to 15 KHz)	169.80	E
RE85	825-0085	Shock mounted Lavalier	85.50	E
630	825-0630	Low cost omnidirectional, w/switch	34.20	E
1751	825-1751	E/V Electret Condenser microphone, cardioid w/switch & breath filter	75.00	E
1711	825-1711	E/V Electret Condenser, omnidirectional w/switch	59.70	E
<i>Note: No separate supply req'd. with Electret microphones. Use AA-size batteries.</i>				
418	825-0418	Desk Stand for 664A	9.30	E
420	825-0420	Desk Stand for 654A	15.00	E
421	825-0421	Desk Stand for 635A	12.60	E

LUXO MICROPHONE ARM

LM-1-41A	825-0001	Luxo Arm with portable "C" type mounting clamp	28.00	C
LM-1-41C	825-0002	Luxo Arm with table-top, permanent screw down mount	28.00	C

Note: Also available to balance with microphones up to 3 lbs. on special order.

TERMS AND CONDITIONS OF SALE

- ORDERING INFORMATION:** List item descriptions as they appear in this price schedule or illustrated catalog on your company letterhead or purchase order. Any special instructions should be clearly made a part of the order. We assume no liability for orders when placed by bona fide employees. Orders placed by telephone should be confirmed in writing and must be clearly marked "confirming" or we cannot assume liability for duplicate shipments.
- PRICES:** Prices listed herein are subject to change without prior notice.
- F.O.B.:** Prices are FOB Silver Spring, Maryland, or point of shipment. All transportation costs are the obligation of the buyer, unless otherwise stated.
- TERMS OF SALE:** Broadcast Electronics, Inc. will ship on open account to companies having established accounts with us, or to firms with an acceptable Dunn & Bradstreet rating. Open account billing provides terms of NET 30 Days from date of invoice. Open account privileges assume strict adherence to billing terms. Accounts are not available to individuals.
- Cash sales providing for a 2% discount are available, providing payment in full accompanies the order.
- COD service is available, especially recommended for small rush orders.
- Extended payment and lease terms are available. Write for details.
- SHIPPING METHOD:** Unless specifically stated by the buyer, we will exercise our best judgment as to method of shipment. A full range of shipping services is available. We have no facilities for handling shipments by interstate bus systems.
- All goods are either insured or declared for full value and the cost thereof, as part of shipping charges. Claims for damage, either concealed or obvious, are the responsibility of the buyer. Inspection of damaged goods by the delivering carrier is usually the first step necessary. We can assist with specific claims problems.
- SERVICE:** Technical assistance is available by letter or prepaid telephone or telegram. Equipment requiring repair or overhaul should be sent by common carrier, prepaid, insured and well protected. Do not mail equipment. We can assume no liability for inbound damage and necessary repairs become the obligation of the shipper. No prior arrangement is necessary providing full instructions accompany the goods.
- RETURN OF GOODS:** Unused goods will be accepted for return within thirty days of purchase subject to a re-stocking and handling charge. Liability for a safe, insured, prepaid return rests with the shipper. Do not return any equipment without prior written approval and return authorization. We will provide shipping instructions and a RA number that will assure proper handling and issuance of credit. Custom manufactured equipment is not returnable.
- LEASING & TIME PAYMENT PLANS ON REQUEST.**

ORDER FORMS

TO: **BROADCAST ELECTRONICS, INC.**
8810 Brookville Rd., Silver Spring, Md. 20910

Please ship the following SPOTMASTER products.

- Check enclosed, less 2% cash discount
 Ship on open account, my Purchase Order No. _____

QTY.	STOCK NO.	DESCRIPTION	PRICE

NOTE: Prices are FOB, Silver Spring, Maryland

- Please have a representative contact me.

NAME _____ TITLE _____

STATION OR ORGN. _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

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NAME _____ TITLE _____

STATION OR ORGN. _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Spotmaster®

AUDIO SYSTEMS

STUDIO ACCESSORIES

MULTIPLE DECK MACHINES

TAPE CARTRIDGE MACHINES

MONO & STEREO AUDIO CONSOLES

BROADCAST ELECTRONICS INC.

— A FILMWAYS COMPANY —



11/74



Table of Contents

Cartridge Recorders and Reproducers	1-13	Turntable, Amplifiers and Audio Accessories	30-33
Series 2000	1	CLE-500 Sound Britener	30
TEN/70 Series	2, 3	AD1B Audio Distribution Amplifier	31
THREE/70 Series	4	CLA-20-40 Compressor-Limiter Amplifier	31
400 Series	5	Model BEM-10 Monitor Amplifier	32
500 Series	6, 7	Professional Turntables	32
305D Multideck	8, 9	Models BETMS 100/200 Pre-Amplifiers	33
303D Multideck	10, 11	Micro-Trak Tone Arms	33
TEN SPOT and FIVE SPOT Multideck	12		
610CX Automatic Audio System	13		
Cartridge Accessories	14-17	Studio Equipment and Accessories	34-36
Splice Detector and Cartridge Eraser	14	Control Room Furniture	34, 35
Maintenance Supplies	14	Studio Accessories	36
News Bureau Audition Unit	15		
BETM-100 Cartridge Winder	15	Telephone Answering Interface Systems	37, 38
Cartridge Storage Units	16	TELCO 80/90 Automatic Message	37
Cartridge Accessories	17	TELCO III/IV Automatic Answering System	38
		TC-4 Call Counter	38
Audio Consoles	18-29		
50 Series Mono	18, 19	Systems Packages	39, 40
100 Series Mono	20, 21	Mini Automation Systems	39
200 Series Mono	22, 23	Audio Delay Systems	39
100 Series Stereo	24, 25	News Center	40
200 Series Stereo	26, 27		
Slide Type Modular Console	28, 29		

Warranty

Broadcast Electronics products are guaranteed to be free from defects in workmanship and material for a period of one year (18 months for SERIES 2000) after shipping date when subjected to normal usage or service. All warranties are void, A) If equipment has been altered or repaired by others without Broadcast Electronics' specific prior authorization, or B) If equipment is operated under environmental conditions or circumstances other than those specifically described in Broadcast Electronics literature or instruction manuals.



BROADCAST ELECTRONICS INC.

— A FILMWAYS COMPANY —

8810 BROOKVILLE ROAD
SILVER SPRING, MD. 20910
PHONE 301-588-4983
TWX: 710-825-0432
CABLE "SPOTMASTER"

NEW SERIES 2000 New Low Cost Cartridge Machines



- SUPERB BROADCAST QUALITY, PERFORMANCE AND RELIABILITY
- ELEGANCE AND SIMPLICITY OF DESIGN WITH PROVEN SPOTMASTER ELECTRICAL AND MECHANICAL FEATURES
- PLUG-IN MODULES FOR RECORD AND AUDITION FUNCTIONS PERMIT FIELD CONVERSION OF PLAYBACK UNITS
- UNPRECEDENTED 18 MONTH WARRANTY

SPOTMASTER'S new Series 2000 tape cartridge machines are the most significant step forward in 15 years of SPOTMASTER history and integrity.

The Series 2000 are reliable, long-life broadcast quality machines. They incorporate unique new proven features which enhance ease of operation, elegance and simplicity.

Series 2000 cart machines have low power consumption and run cool to protect your tapes. Their noise figure exceeds 57 dB. Start/stop times are the fastest in the industry – under 80 milliseconds. Standard features include balanced transformer output, 150 Hz cue, 1000 Hz cue, and provision for remote control and telephone interface.

Separate front panel plug-in modules are used to implement record and audition functions. These add flexibility and permit instant field conversion of Series 2000 playback machines. Table top units accept A, B and C size cartridges, and the dual rack mount configuration accepts size A and B cartridges.

WE OFFER THESE NEW MACHINES WITH AN UNPRECEDENTED 18 MONTH WARRANTY. WE ALSO HAVE A FEW CLINCHERS – WITHOUT SACRIFICING QUALITY, PERFORMANCE AND DURABILITY – OUR LOW PRICES.

Specifications

Noise:	57 dB below +8 dBm output.
Frequency Response:	±2 dB, 50 - 15,000 Hz.
Distortion:	2% or less at +16 dBm output.
Tape Speed:	7.5 ips accurate 0.2% or better. Optional 3.75 ips accurate 0.4% or better.
Wow and Flutter:	Less than 0.2% RMS (NAB unweighted).
Output Level:	Peak output +16 dBm, continuously adjustable.
Output Impedance:	600 ohms, transformer balanced.
Start and Stop Time:	80 milliseconds.
Equalization:	NAB standard.
Capacity:	NAB A, B and C cartridges for table top operation. NAB A and B cartridges for dual rack mount operation.
Drive:	Hysteresis synchronous, indirect.
Power:	117 VAC/60 Hz standard. 220 VAC/50 Hz optional. 117 VAC/50 Hz optional.
Cue Tones:	1 KHz stop standard, 150 Hz standard.
Start/Stop Controls:	Illuminated, push button.

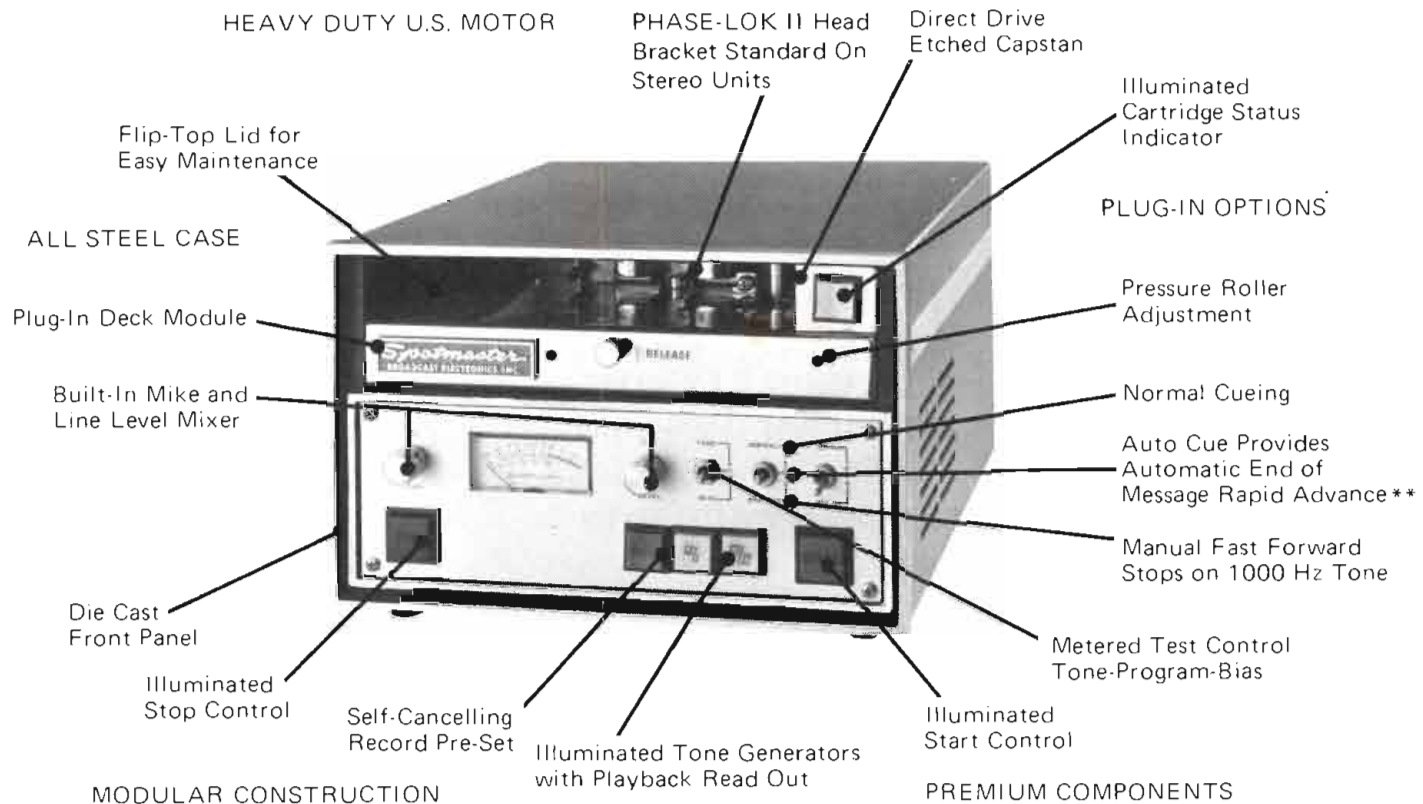
Remote Control:	Octal socket; stop, start, TELCO telephone answering accessory, and 150 Hz cue tone logic ground.
Case Construction:	Rugged steel with high durability finish.
Warranty:	18 month.
Dimensions:	5-5/8" high x 8-1/2" wide x 12" deep.
Weight:	Playback - 14 lb. Record/playback - 15 lb.

OPTIONS

Cue Tones:	8 KHz auxiliary in lieu of standard 150 Hz.
Record Module:	Plug-in for factory or simple field installation; includes VU meter, microphone input provision, and 150 Hz tone generator.
Rack Adapter:	Mounts two SERIES 2000 units side by side in 19" rack.
Speaker:	Plug-in module with 1 watt amplifier and speaker; output jack for external speaker with 10 watt amplifier.
Telephone Answering:	Prewired for TELCO telephone answering interface.

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	Cueing Accuracy:	0.1 Second
Frequency Response:	50-15,000 Hz ± 2 dB 30-18,000 Hz ± 4 dB	Capacity:	Size A or B NAB Standard Cartridge
Distortion:	1% or Less @ OVU (400 Hz)	*Input:	Line -15 dBm to 0 dBm or 0 dBm to +5 dBm Switchable @ 10,000 ohms bridging balanced Mike 0.1 mv @ 150 ohms balanced (Optional, RP and RP/DL only).
Signal to Noise:	-57 dB or better at 1 KHz	Power Requirement:	117 V/60 Hz, 50 Watts 220-240 V/50 Hz (Optional)
Wow & Flutter:	Less than 0.2% RMS (NAB unweighted)	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
Cross Talk:	Cue/Program -55 dB or better	Size:	5-3/8" H, 8-1/2" W, 12" D
Output:	-10 dBm/0 dBm/+8 dBm Switchable Adjustable 10 dBm each position. Peak output +18dBm.	Shipping Weight:	15 lbs.
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		

*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 recording logging tones on cue track.
- Rear panel jack for cue amplifier output (-20 dBm).
- Fast forward may be initiated automatically (AUTO-CUE) or manually. Automatic fast forward may also be locked out.



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 Adapter

Here's where Ten/70 leaves the others behind. Take any two units, add our exclusive rack panel adapter 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 Adapter & 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 adapter and you have built-in storage convenience for 10 Series 300 Cartridges all in just 7-inches vertical space.

Model RC1070 Remote Control



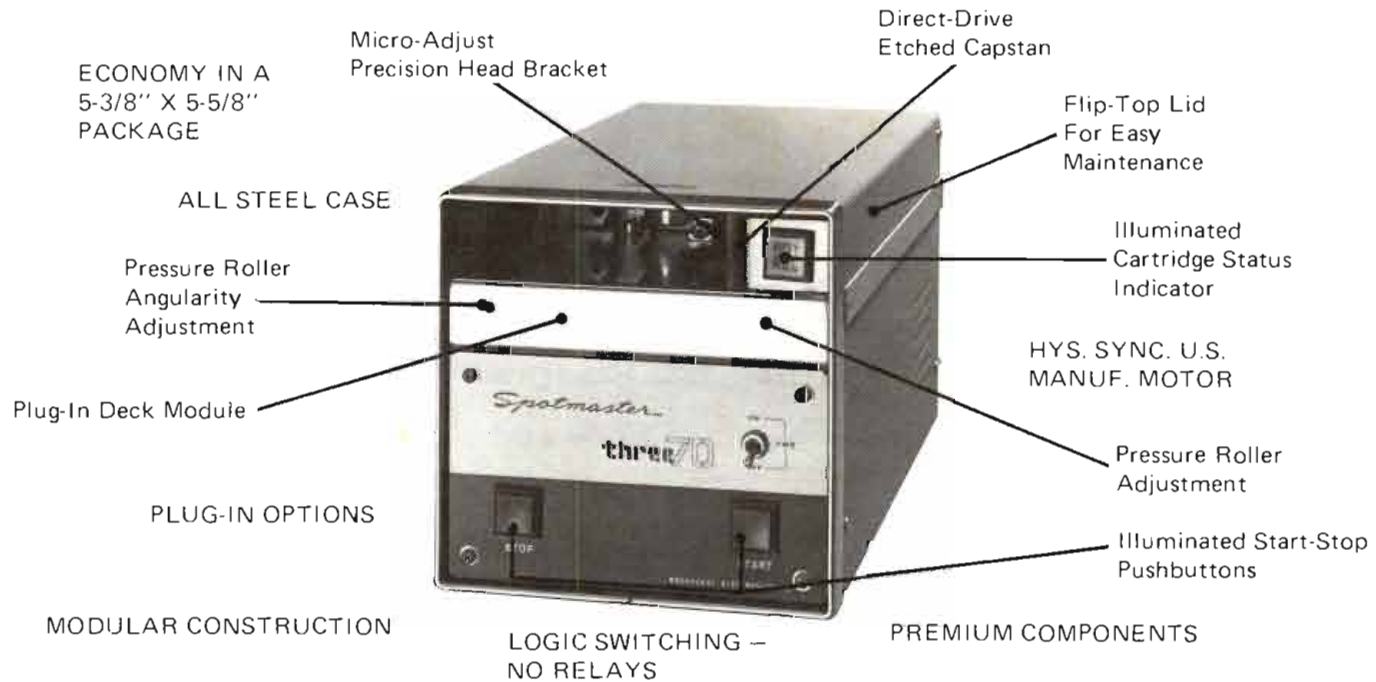
Remote control available for complete external control of all functions. Suitable for mounting in console desk cut-out or in blank rack panel. Measures 2.25" high x 4" deep x 5.5" wide. Mating 24-pin connector furnished with 15 feet pre-wired cabling.

Phase-Lok II Head Bracket



Phase out stereo phase problems with the SPOTMASTER precision PHASE-LOK Head Bracket. Precision tape guidance system 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 Out: Jack, 3 connector phone
 Output Level Potentiometer
 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. Full year 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. Peak output 0 dBm. (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
 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.

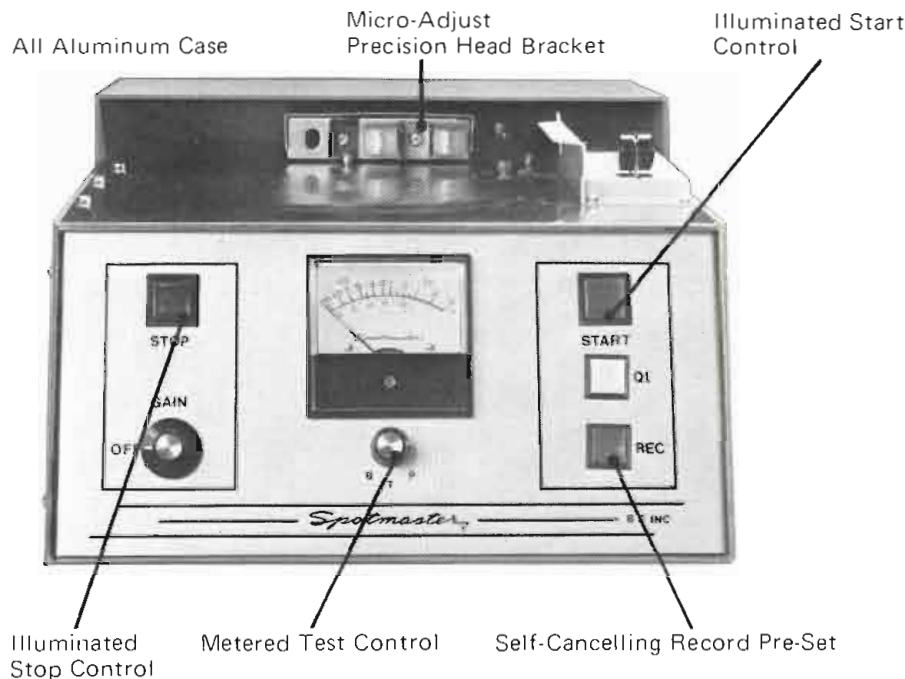
Optional Accessories

CUE TRIP^I AMPLIFIER (150 Hz)
 CUE TRIP^I GENERATOR (150 Hz)

BALANCED OUTPUT TRANSFORMER
 MICROPHONE PREAMPLIFIER

The Compact 500 Series

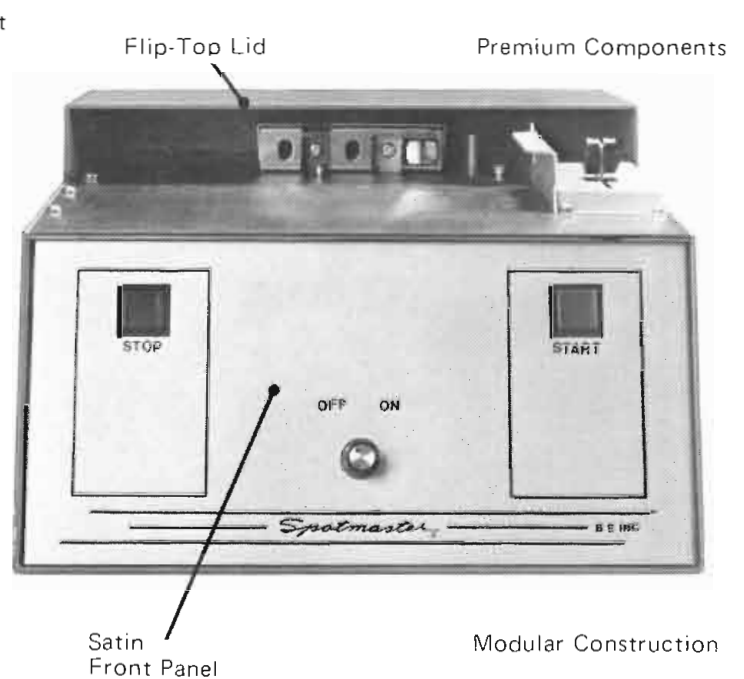
*Model D . . . Traditional Favorite . . . Moderately Priced
Meets or Exceeds NAB Specifications*



The Spotmaster 500 D

Combination Recorder- Playback Unit

Model D 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



The Spotmaster 505 D

Companion Playback Unit

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

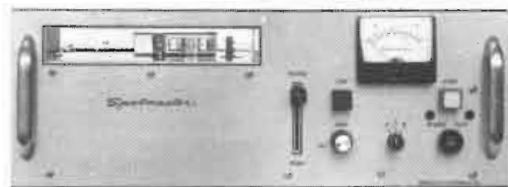
Equalization:	NAB Standard.	Starting Time:	0.1 Second.
Frequency Response:	±2 dB 50 - 12,000 Hz @ 7.5 IPS. ±3 dB 40 - 15,000 Hz @ 7.5 IPS.	Power Requirement:	105 - 125 V ac, 60 Hz, 50 watts (115/220 V ac, 50 Hz optional extra).
Distortion:	2% or less @ 0 VU recording level.	Playing Time:	1 second to 31 minutes @ 7.5 IPS.
Signal to Noise Ratio:	50 dB or better.	Motor:	Hysteresis Synchronous
Wow & Flutter:	0.2% or less @ 7.5 IPS.	Controls:	*Gain *Automatic Record Pre-set *VU Meter Selector Start Switch Stop Switch Output Level On-Off
Tape Speed:	7.5 IPS.	Size:	10-1/4" W, 12-3/4" L, 6-5/8" H.
*Input (Line):	0.1 Volt (Bridging)	Weight:	18 lbs. (Model 500) 15 lbs. (Model 505)
*Input (Microphone, 150 ohms):	0.25 mv (-64 dBm)	Finish:	Silver Gray and satin aluminum panel.
Output:	+4 dBm @ 600 ohms. Peak output +14 dBm. (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.		

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

BE-102 Remote Control Unit

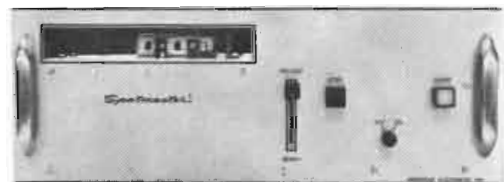
BE-102 is designed to externally control up to three single deck units. BE-102 offers start and stop functions on convenient desk-top panel with 15-feet of cable.





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 500DR specifications same as compact Model 500D except for dimensions, weight 23 pounds and optional mike pre-amp.



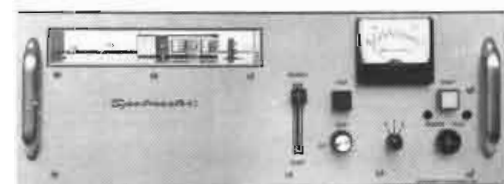
Model 505 DR Playback

This rack-mounted playback unit, identical in size and mechanical make-up to the 500DR, features front panel load lever for operating convenience as well as other standard SPOTMASTER features . . . Series D 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 500DRDL 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 DS Recorder/Playback/Stereo

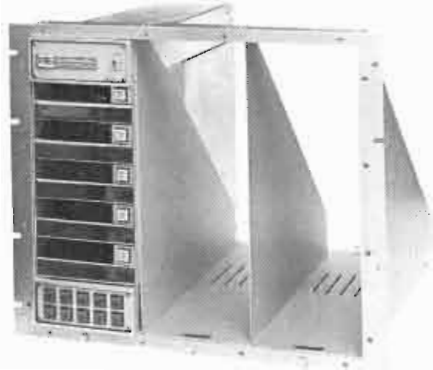
For the stereo-minded station here's familiar SPOTMASTER compact styling . . . Big enough to do the job . . . small enough to fit just about any situation . . . Two large easy-to-monitor VU meters and dual channel gain controls add to the feature-packed front panel . . . 22 lbs. . . . Playback stereo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



Model 500 DRS Recorder/Playback/Stereo

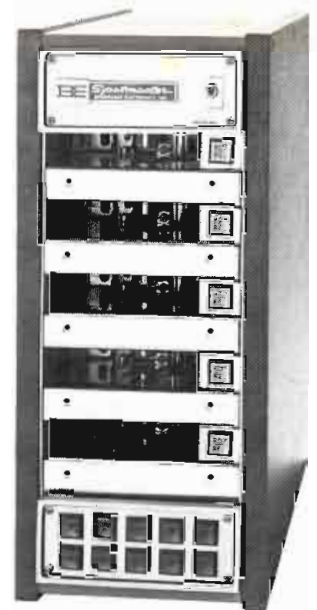
Full rack mounted stereo record/play features in the same space as the mono counterpart . . . The 500DRS offers the full range of SPOTMASTER features completely within NAB specifications. Rack mounted stereo playback available, too in Model 505DRS.

MINI SERIES Multi Channel Tape Cartridge Playback Systems

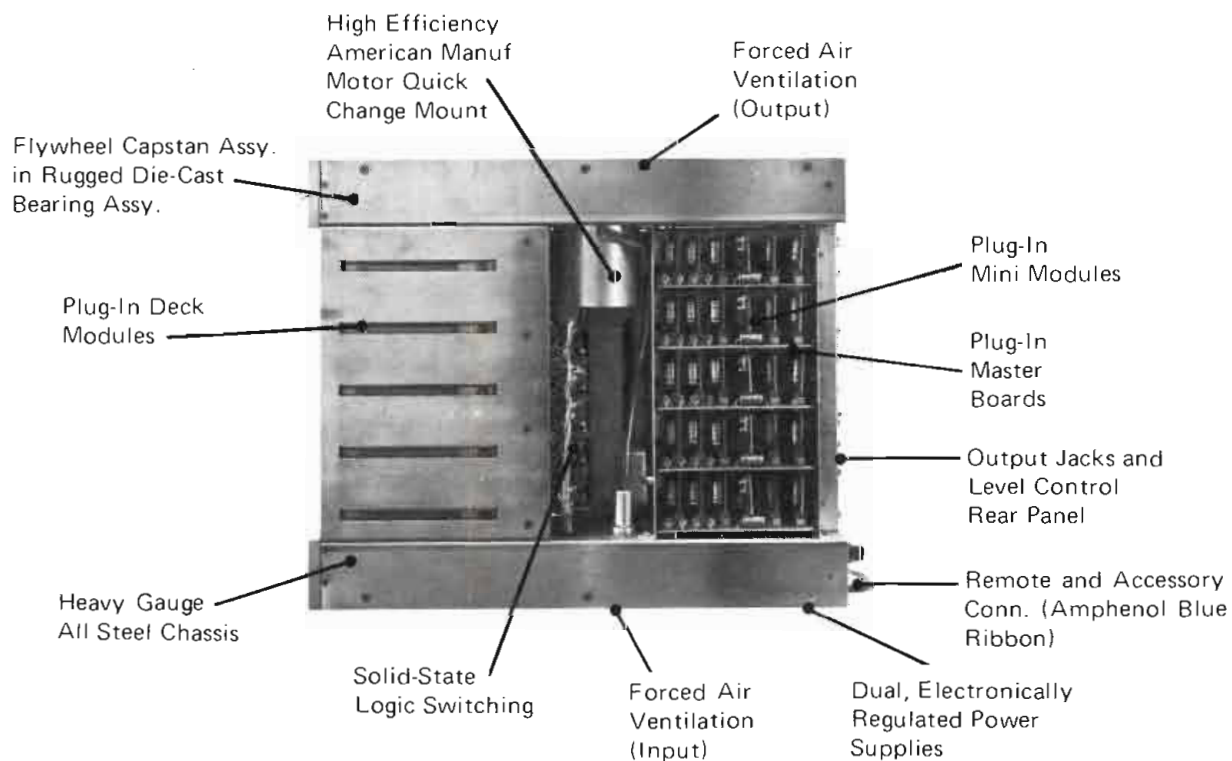


RA 35
Rack Panel Adapter

- 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 or IEC standards.
Output Level: +18 dBm peak, continuously adjustable.
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: $\pm 0.4\%$ or better.
Wow & Flutter: 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 Trim: Potentiometer

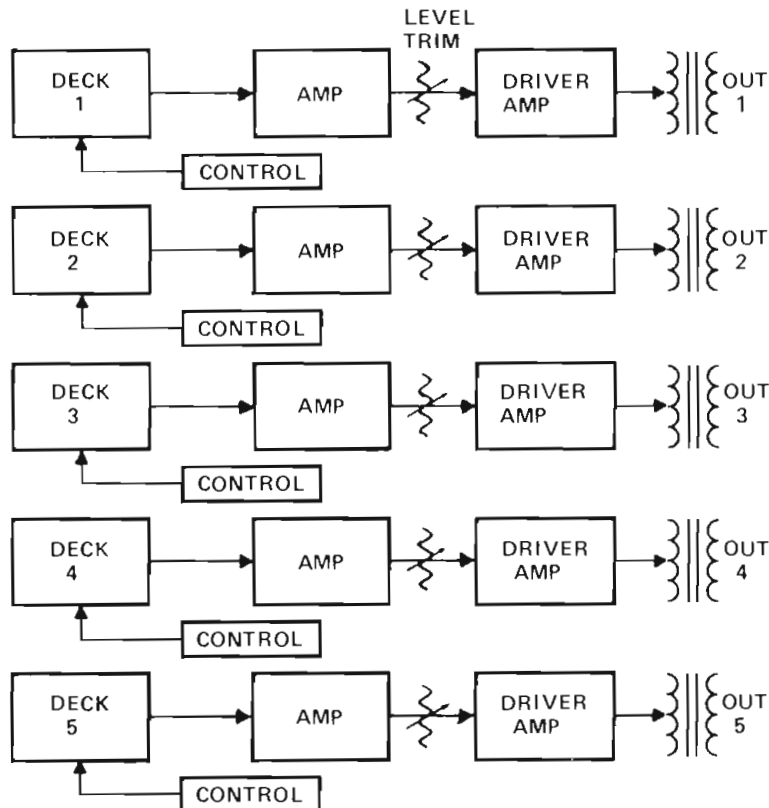
Remote and Accessory Control Connections:

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:

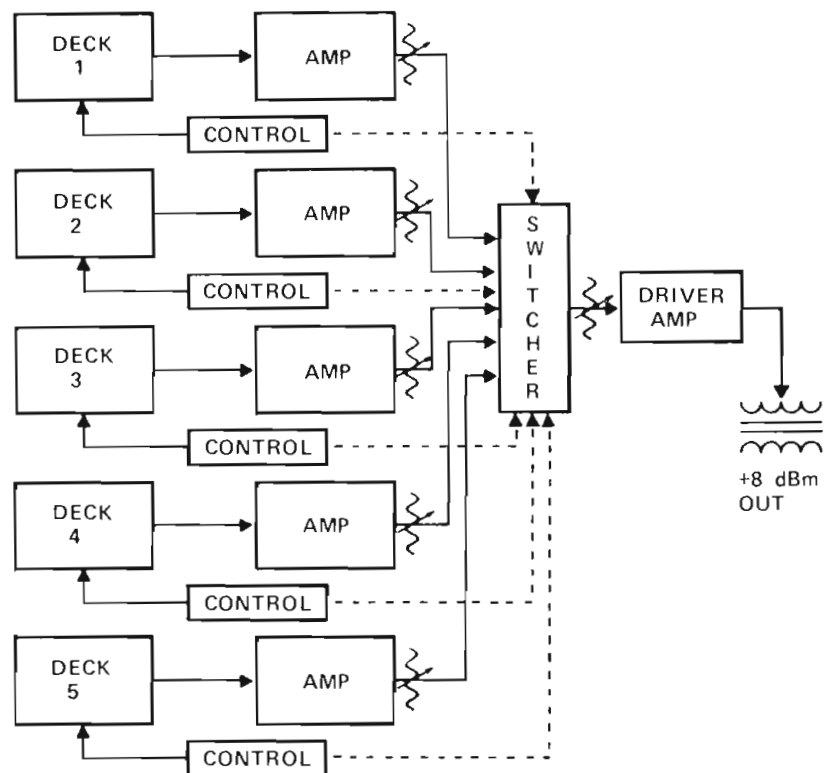
Overall Dimensions: 14.39" H x 5.44" W x 17.75" D.
Weight: 42 lbs.
Rack Panel Adapter: RA35 (for 3 - Model 305): 15¾" H x 19" W x 18" D

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

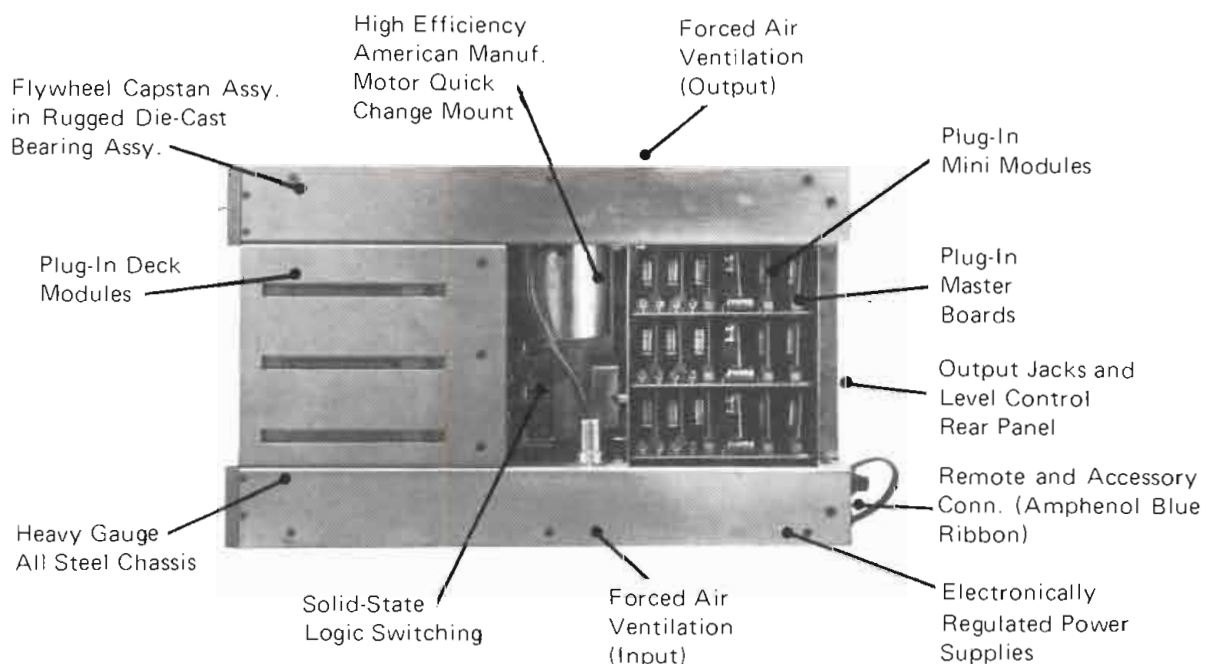


RA 33
Rack Panel Adapter

- 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



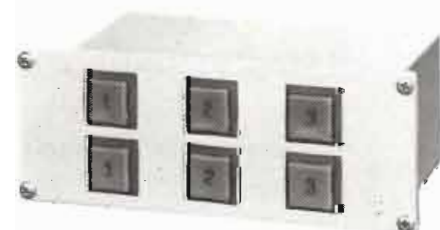
The new SPOTMASTER Mini-Series playback units are designed to provide the latest innovations in Multi-channel tape cartridge playback systems. The Mini 303D Series provides 3 plug-in playback decks in a compact package for manual operation, or for use in programmed automation systems. All functions may 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

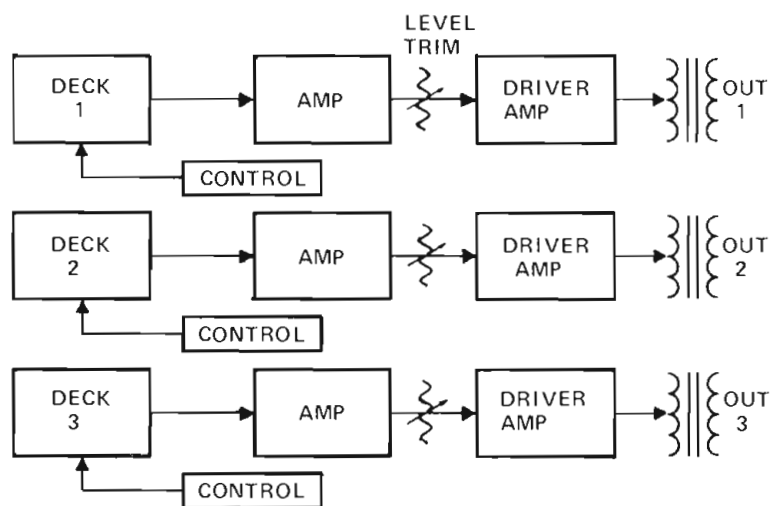
ELECTRICAL: (@ 7.5 IPS)

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 or IEC standards.
Output Level: +18 dBm peak, continuously adjustable.
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)
 3¾ IPS (Optional)
Speed Accuracy: $\pm 0.4\%$ or better.
Wow & Flutter: 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 @ 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 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.

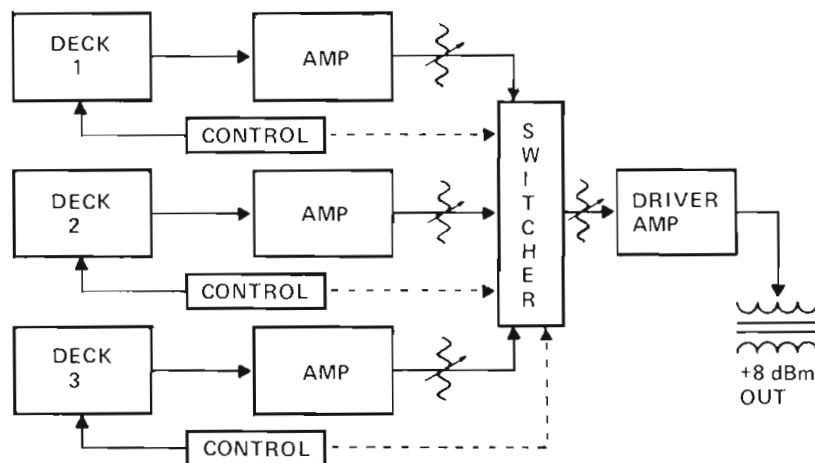
MECHANICAL:
Overall Dimensions: 10.45" H x 5.44" W x 17.75" D. x
Weight: 30 lbs.
Rack Panel Adapter: RA33 (for 3 - Model 303): 12½" H x 19" W x 18" D

Typical Audio Block Diagrams



303D

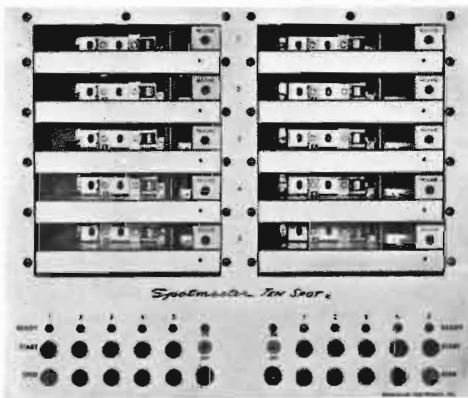
PROVIDES 3 INDIVIDUAL OUTPUTS



303D-SW

SUPPLIED WITH SWITCHER
PROVIDING ONE AUDIO OUTPUT

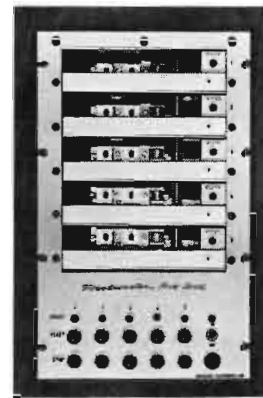
TEN SPOT®



Model 610CR

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-

FIVE SPOT®



Model 605C

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 - 15 kHz
Distortion:	2% or less @ Normal recording level
Signal-to-Noise Ratio:	-45 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, peak output +12 dBm.
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:	3 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 Optional 220 VAC, 50 Hz (step down transformer supplied).
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

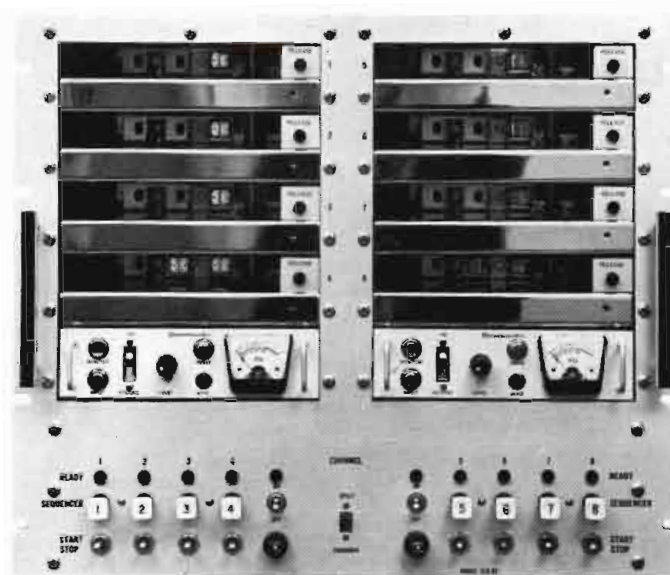
Remove one playback deck, insert MRM 600 for instant conversion to record capability.



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.

Specifications

Frequency Response: ± 3 dB, 50 Hz - 12 KHz
 ± 5 dB, 50 Hz - 15 KHz

Equalization: NAB Standard

Output Level: -4 dBm, ± 3 dBm

Cueing Tones: 1 KHz, 150 Hz

Tape Speed: 7.5 ips

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;

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

Distortion: 2% or less

Wow, Flutter: 0.2% RMS

Inputs: (2) microphone, 250 mv 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: 95 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.

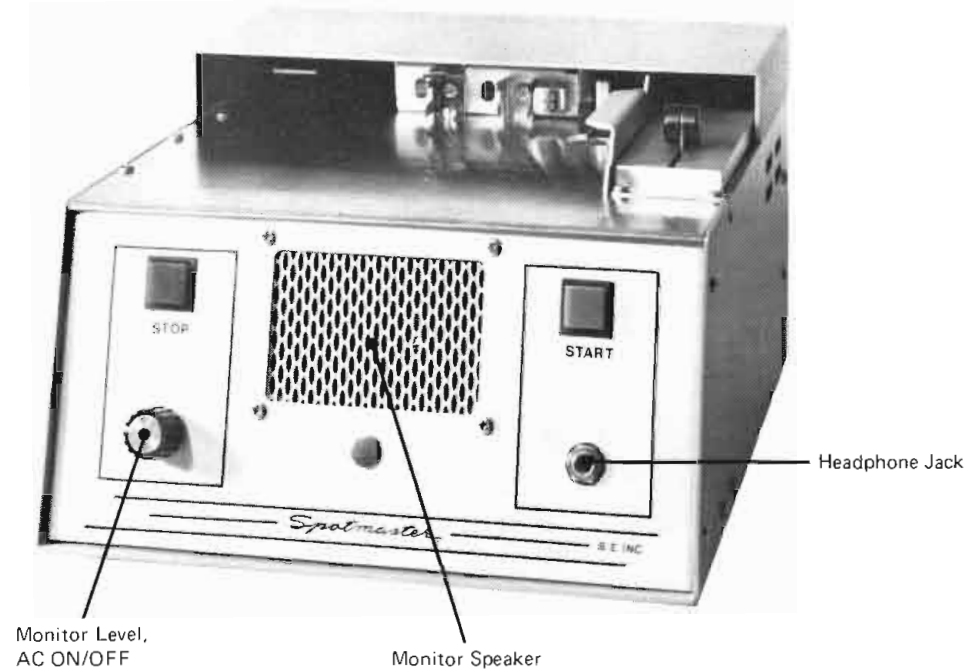


News Bureau Audition Unit

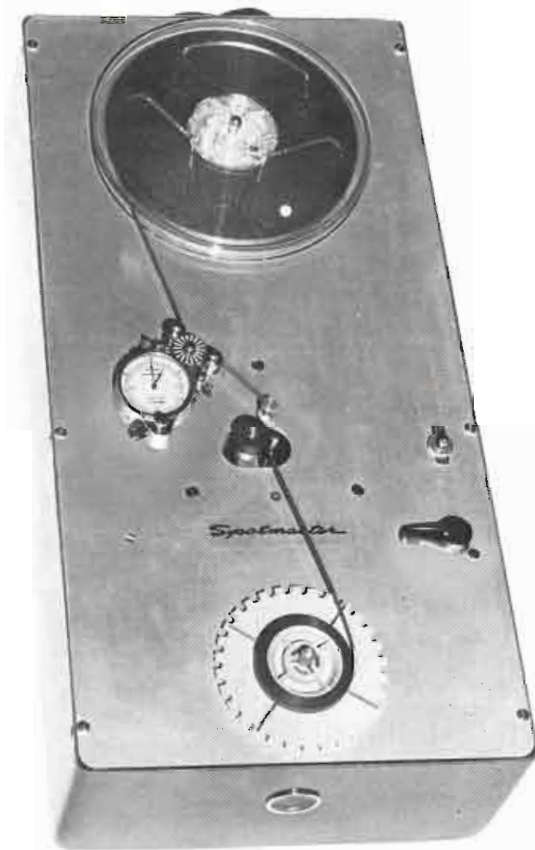
MODEL 505D/A PLAYBACK UNIT

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.



BETM-100 Tape Cartridge Winder



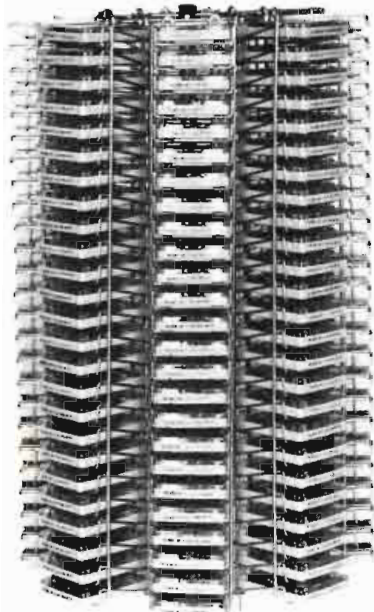
The SPOTMASTER Tape Cartridge Winder is a rugged, dependable and field tested tape cartridge winder which fills a need in every station using cartridge equipment. It is no longer necessary to limit your cartridge operation by using only stock sizes or to tie up your conventional tape equipment to load 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. BET-50 Tape Timer installed, optional.

Specifications

Size:	10" W x 20" L x 6¾" 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

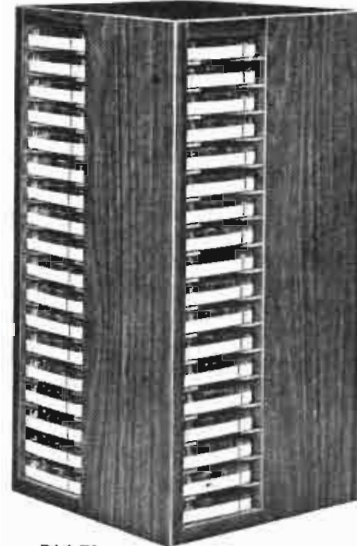
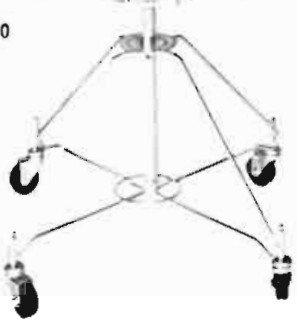
Modular Units



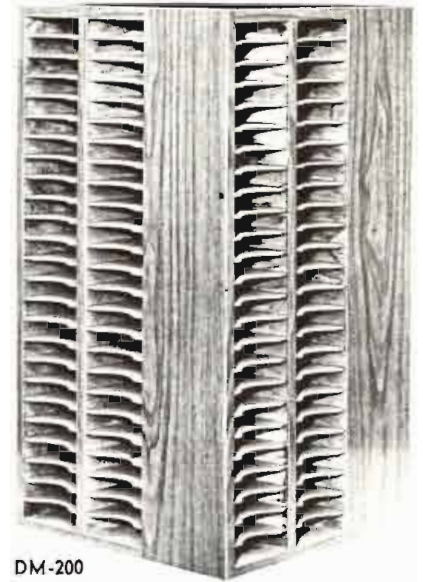
LS-200 Lazy Susan

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



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.

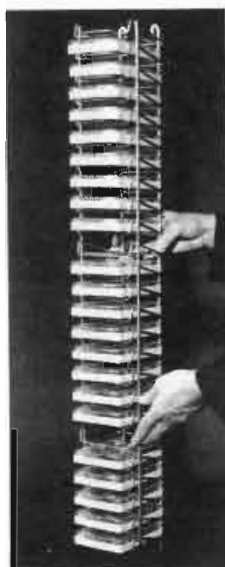
DM-20



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".

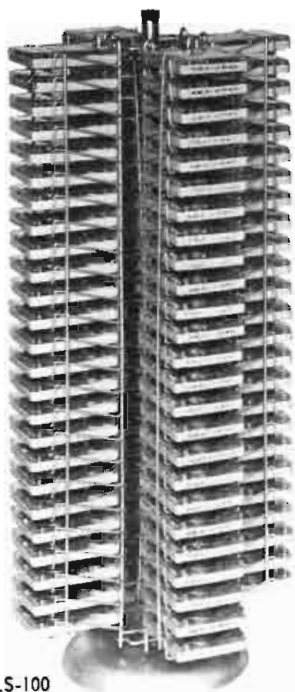


RS-25 RACK SECTION

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-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 playtime.



200C/220C

300C/330C

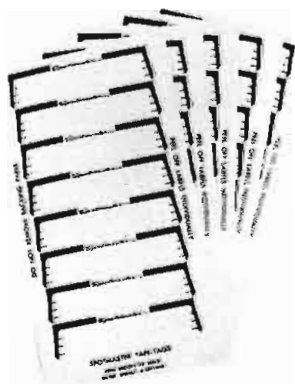


Tape Erasers

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.

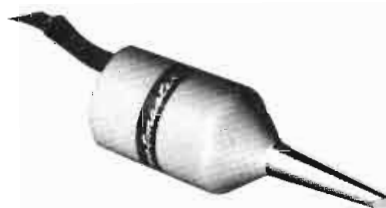
Tape Splicer



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 . . . 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 . . . 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.





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 version 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 any input.

Contacts:

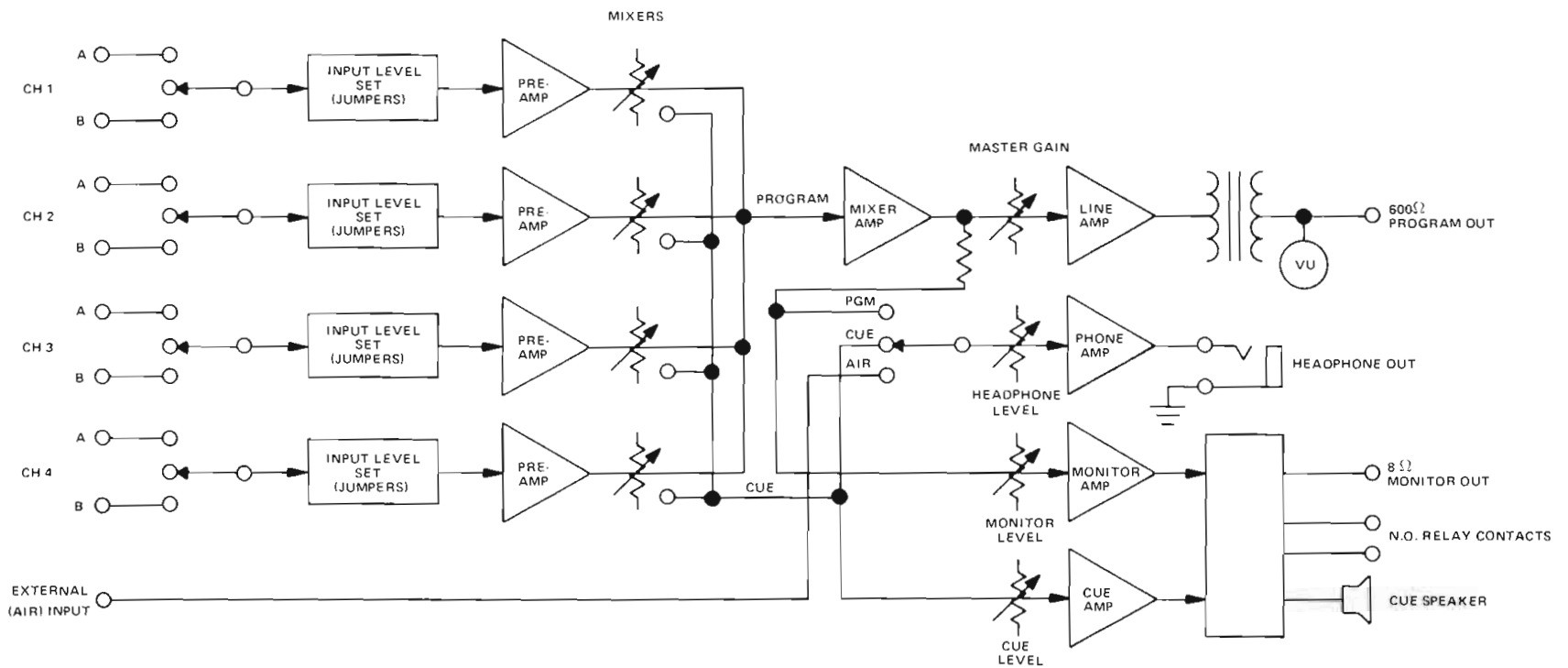
1A at 125 VAC, 1/2A at 250 VAC, resistive loads.

Size:

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

Options:

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 (18K ohms each side to ground); -20 dBm nominal, +10 dBm maximum.

Outputs:

Program

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

Audition

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

Monitor

8 Watts RMS to drive 8 or 16 ohms.

Cue

0.5 Watt RMS; to drive 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 8 ohms.

Distortion:

Program & Audition

0.5% THD or less with +18 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 and relay 2 activated by mixer 2.

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

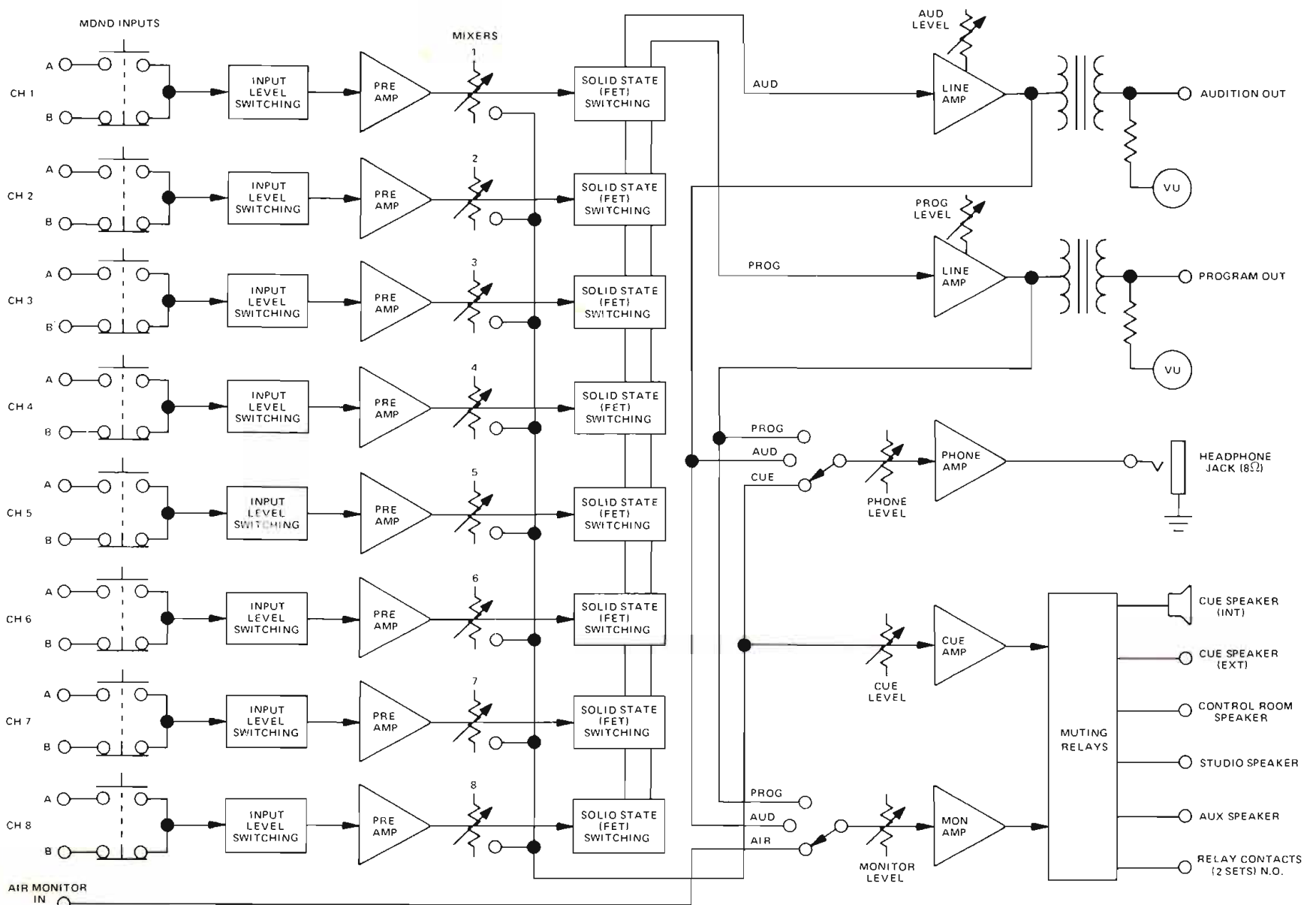
29.5" Wide x 13" Deep x 7.5" High

8BEM

32.5" Wide x 13" Deep x 7.5" High

Options:

230 VAC/50 Hz Operation. 4 mixer extender with remote line capabilities. Step attenuators.



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 8 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 eight 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 (18K ohms each side to ground); -20 dBm nominal; +10 dBm maximum.

Outputs:

Program

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

Audition

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

Monitor

8 Watts RMS; will drive 8 or 16 ohms.

Cue

0.5 Watt RMS; 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:

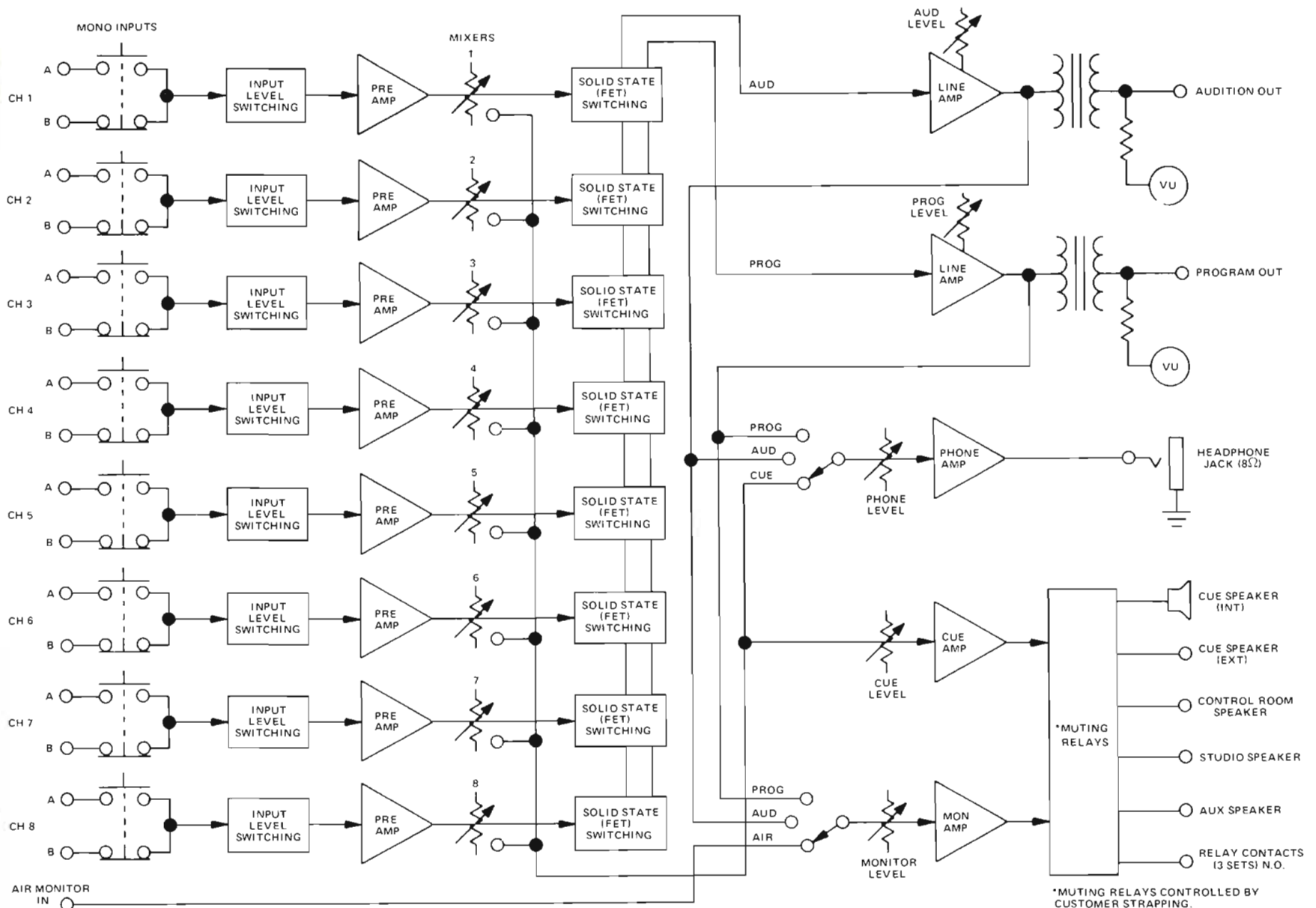
5 BEM
 29.5" wide x 14" deep x 9.5" high.

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



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 +18 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 (18K ohms each side to ground); -20 dBm nominal; +10 dBm maximum.

Outputs:

Program

600 ohm, transformer balanced; +8 dBm nominal; +18 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 8 or 16 ohms.

Cue

0.5 Watt RMS; 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, +18 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

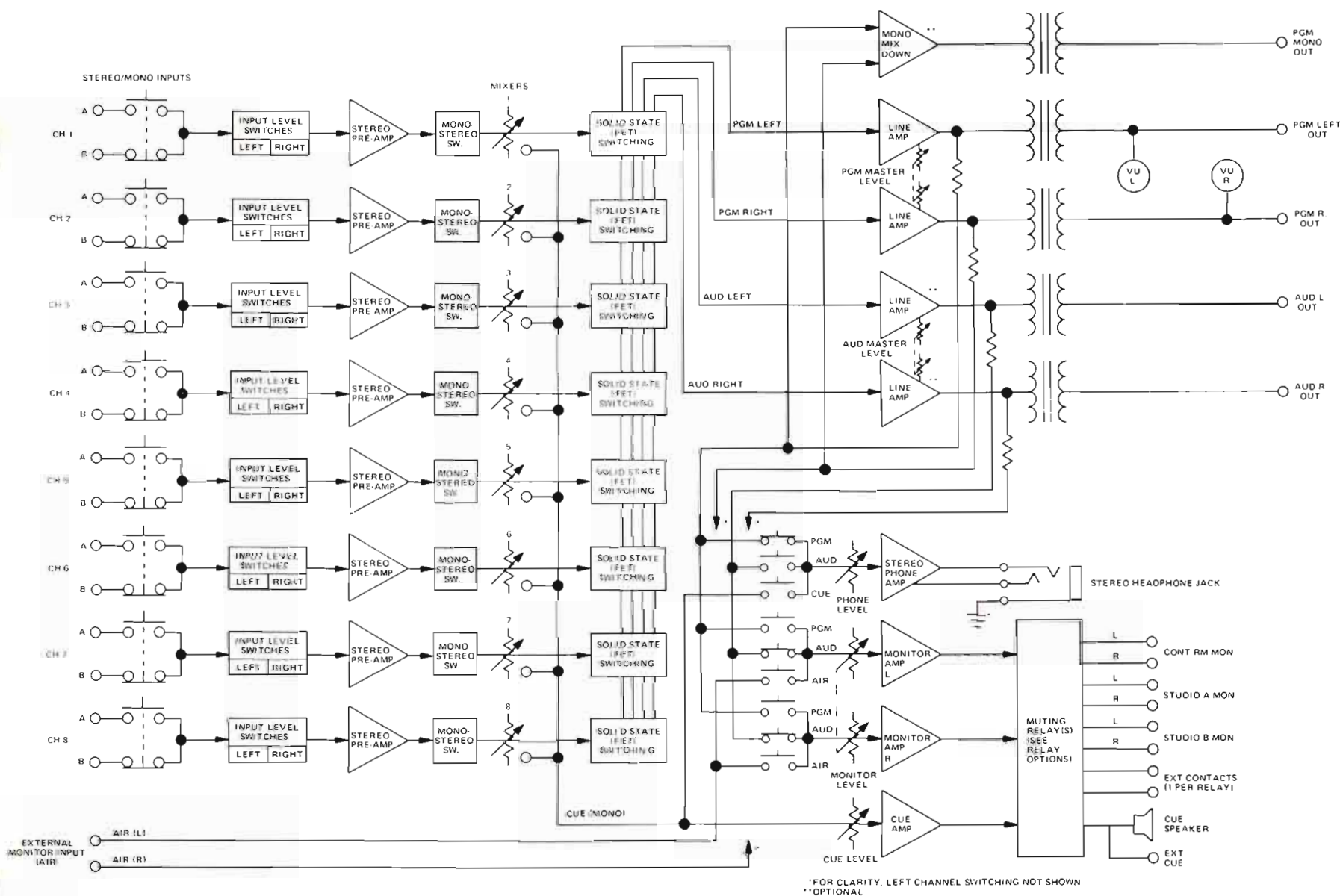
32.5" wide x 13" deep x 7.5" high.

5BES

29.5" wide x 13" deep x 7.5" high.

Options:

1. 230 VAC/50/60 Hz operation.
2. Line amplifier module for audition channel.
3. Mono matrix module.
4. Second muting relay.
5. Step attenuators.



100 SERIES STEREO CONSOLES BLOCK DIAGRAM



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 8 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 (18K ohms each side to ground); -20dBm nominal; +10 dBm maximum.

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

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

Cue

0.5 Watt RMS; 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.

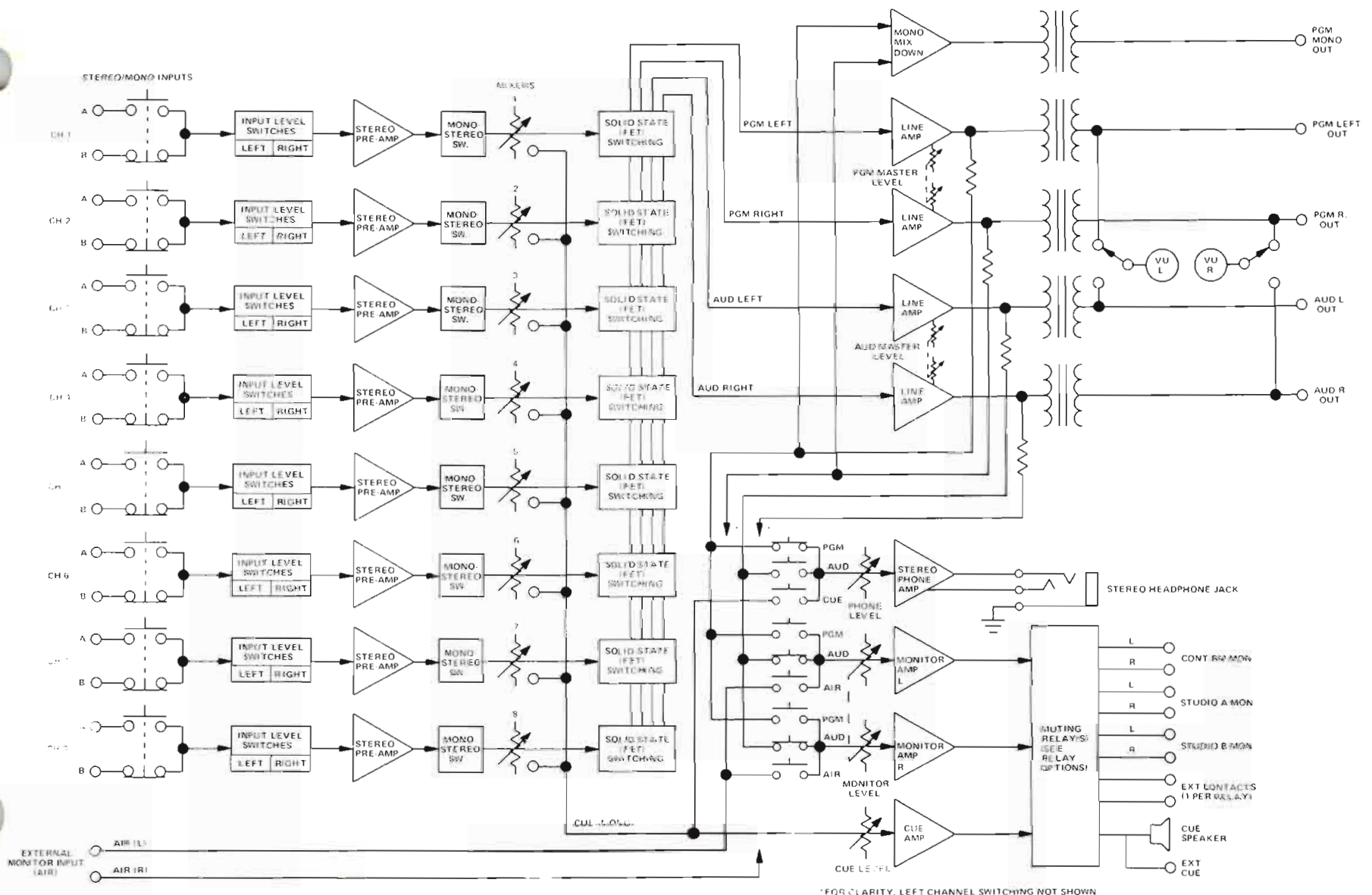
8 BES

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

Options

230 VAC/50/60 Hz operation.

4 mixer extender with remote line provisions.



200 SERIES STEREO CONSOLE BLOCK DIAGRAM

- 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



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. All modules have momentary pushbutton 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 (FET 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, each input strappable for microphone or line input.

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 input, audition or program positions. Shipped with relay 1 activated by channel 1, etc.

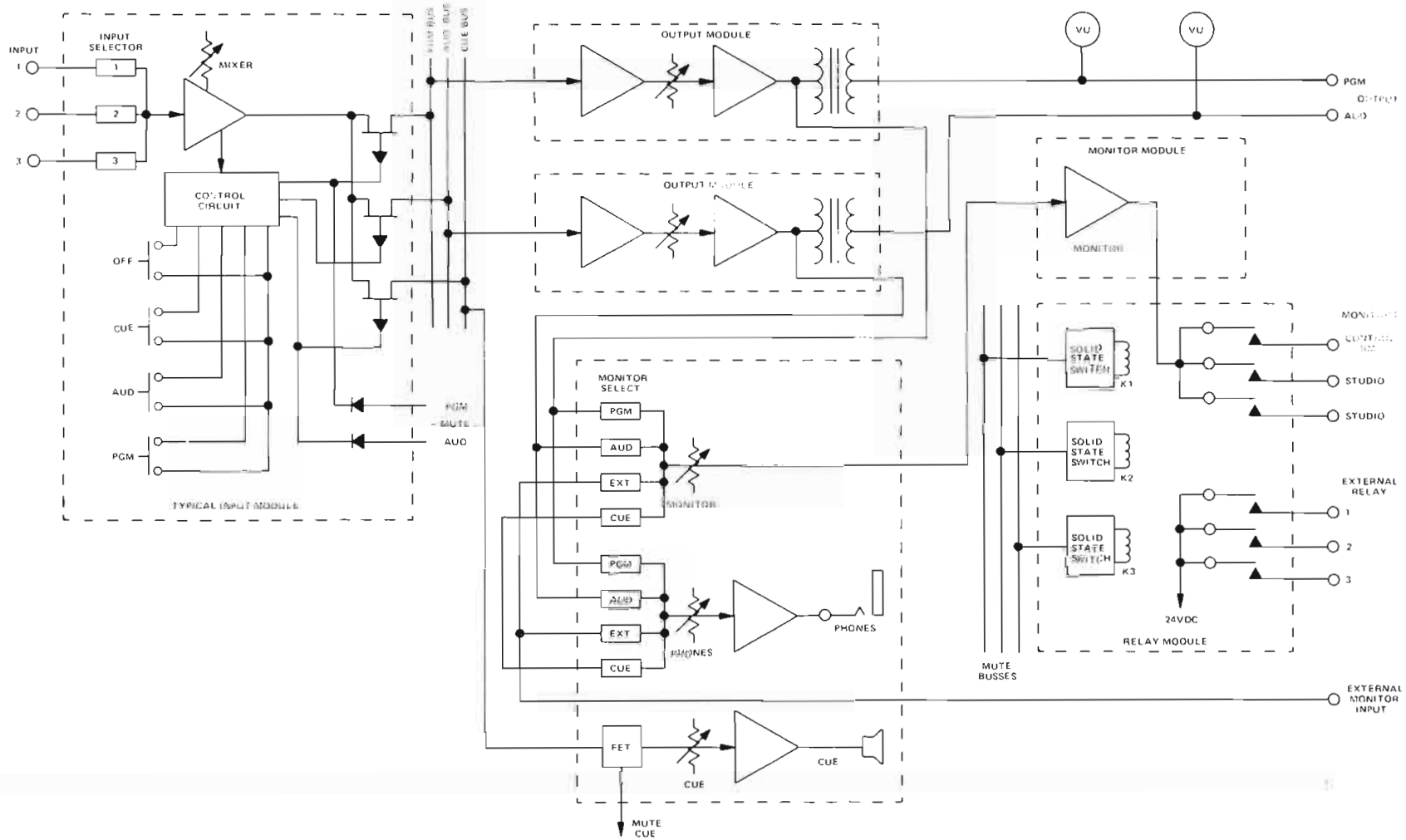
External contacts
24 volts provided for external control relays.

Power Required:

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

Size:

37½" wide x 20" deep x 12" high.



SLIDE-MOD CONSOLE BLOCK DIAGRAM

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 70 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.

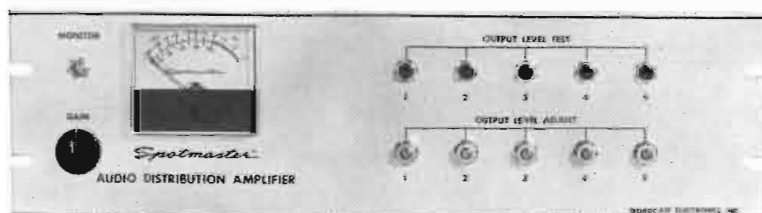
The amount of expansion is a function of the peak-to-average control setting. The peak control section is a dual action limiter. Fast gain reduction with an attack time of approximately 0.1 millisecond will hold all peaks under about 8 kHz, with absolute minimum distortion to lower frequencies, followed 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 balanced
Input Sensitivity:	Minimum: -40 dBm for +14 dBm output. Maximum: +30 dBm for +14 dBm output. -20 dBm yields +14 dBm output with 0 compression/expansion.
Maximum Overall Gain:	54 dB (full expansion).
Output:	600 ohms, transformer balanced, +14 dBm maximum.
Maximum Expansion:	20 dB.
Maximum Compression:	30 dB before clipping.

Average/Peak Ratio:	Adjustable from minimum 35 dB to maximum 1 dB.
Limiting Selection:	Symmetrical (positive and negative) or asymmetrical (negative only) peak limiting.
Frequency Response:	±0.5 dB, 20 Hz to 20 KHz.
Distortion:	Less than 0.5% total harmonic before clipping.
Noise:	Minimum 70 dB below normal output with -20 dB input.
Equalization:	Flat
Power Requirements:	117 VAC, 50/60 Hz, 11 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.

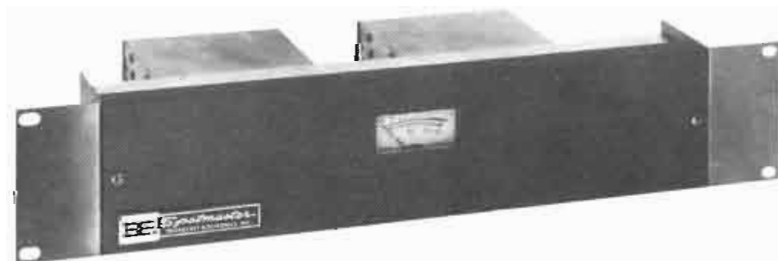
The five highly isolated output channels of the ADIB are expandable up to 25 output channels by the addition of ADIB-X Extenders, which also contain the same aural monitoring facilities as the ADIB.

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 ADIB-X: 10KΩ, unbalanced
Output Load Impedance:	600Ω (Optional 150/600Ω)
Input Level:	Max.: +30 dBm, ADIB-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. ADIB-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, ADIB-X: 40 watts.
Dimensions:	19" W x 5 1/4" H x 7-1/8" L.
Weight:	9 1/2 lbs., ADIB-X: 8 lbs.
Finish:	Clear anodized brushed aluminum, with black lettering.
Controls:	1 gain, 5 output level, 5 meter monitor (momentary), ADIB-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:	3 1/2" x 19" rack panel.
Power Requirements:	120/240 volts, 50/60 Hz, 10 watts.
Weight:	6 lbs.

Model BEM-10 Monitor Amplifier

The BEM-10 is a conservatively rated widebandwidth amplifier capable of delivering from 10 to 15 watts RMS (depending on load impedance). Electronic muting is incorporated to enable the microphone and mute the program channel for paging operation. An automatic drive limit circuit is employed to sense the output stage operation and attenuate the input if an overload occurs.



Specifications

<p>Power Output: 10 watts rms — 16 ohms unbalanced 25/70.7 volt balanced line. 12.5 watts rms — 8 ohms unbalanced. 15 watts rms — 4 ohms unbalanced.</p> <p>Frequency Response: ±1 dB, 50-15,000 Hz.</p> <p>Distortion: 1% or less, 50 - 20,000 Hz at 12.5 W output.</p> <p>Hum & Noise: Mic: 60 dB below 10 watts output. Pgm.: 70 dB below 10 watts output.</p> <p>Outputs: 4/8/16 ohms unbalanced; 25/70.7 volt balanced line.</p> <p>Program/Line Input: 25 K-ohm unbalanced; 600 ohms balanced with MT-3 plug-in.</p>	<p>Program/Line Sensitivity: 300 millivolts, 25 K ohm unbalanced input —10 dBm (balanced 10K ohm bridging with MT-3 plug-in card) 0 dBm (balanced 600-ohm matching with MT-3 plug-in card).</p> <p>Operating Temperature: To 150°F</p> <p>Power Requirements: 115 VAC, 50/60 Hz, 30 watts (primary taps for 105 & 125).</p> <p>Mic Input: 150 ohms balanced (internal transformer).</p> <p>Mic Termination: Screw Terminals.</p>
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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 motor

Specifications

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



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)

Turntable Pre-Amplifiers Models BE TMS-100/200



SPOTMASTER BETMS turntable pre-amplifiers provide the professional studio with accurate reproduction, outstanding reliability, and versatile operation. Both models are dual channel integrated circuit devices for monophonic or stereophonic phono cartridges. Either model operates in five modes:

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

- DUAL CHANNEL FOR STEREO OR MONO
- INTEGRATED CIRCUITRY
- UNBALANCED OUTPUT – BETMS 100
- BALANCED TRANSFORMER OUTPUT – BETMS 200

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

The BETMS does not sacrifice performance. Specifications are conservatively rated at the intended operating figures to truly reflect the units performance. Esoteric and laboratory measurements are not employed. Noise, output, cross talk, and distortion are all specified with a 5 millivolt input signal, the output level of today's high compliance stereophonic phono cartridges.

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

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

Specifications

Output Level:	+8 dBm nominal, +16 dBm peak, into 600 ohms. Each output continuously adjustable.
Output Impedance:	BETMS-100 150 ohms unbalanced. BETMS-200 600 ohms balanced, 150 ohms balanced (wiring option).
Input Sensitivity:	5 mV. for +8 dBm output, at 1 KHz, full output.
Input Impedance:	47,000 ohms resistive (50 pf parallel).
Signal to Noise:	65 dB or better for 5 mV. input, +8 dBm output, 1 KHz.
Equivalent Input Noise:	2.8 microvolts (116 dB below output with 600 ohm load).
Channel Separation:	65 dB or better for +8 dBm output, 1 KHz, into 600 ohms, with 5 mV input.
Frequency Response:	±1 dB of RIAA equalization curve, 50 - 15,000 Hz

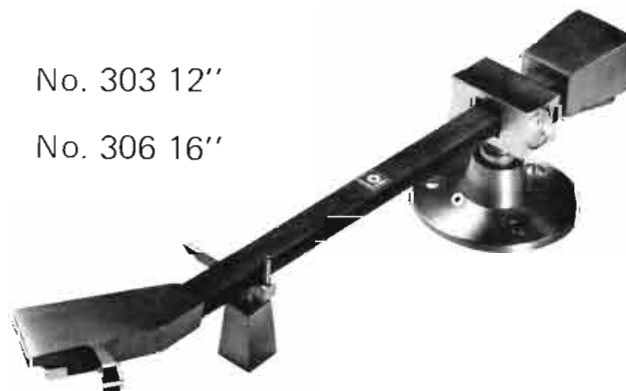
Distortion:	Less than 0.25% THD at 1 KHz, +8 dBm output into 600 ohms.
Equalization:	Standard NAB/RIAA Disc Reproduction.
Front Panel Controls:	Power on/off Left Output Level Right Output Level Mono/Stereo Mode Switch Right Channel Phase Reversal Switch
Rear Panel Connections:	Right input Left input Right output Left output Ground terminal 3-wire power cord
AC Power:	100 to 135 VAC, 50/60 Hz. 200 to 270 VAC, 50/60 Hz (optional) 6 watts max.
Dimensions:	9½ inches wide (24.1 cm.) 6½ inches deep (16.5 cm.) 3 inches high (7.62 cm.)
Weight:	3.5 lbs. (1.6 Kg.)

Micro-Trak Tone Arms

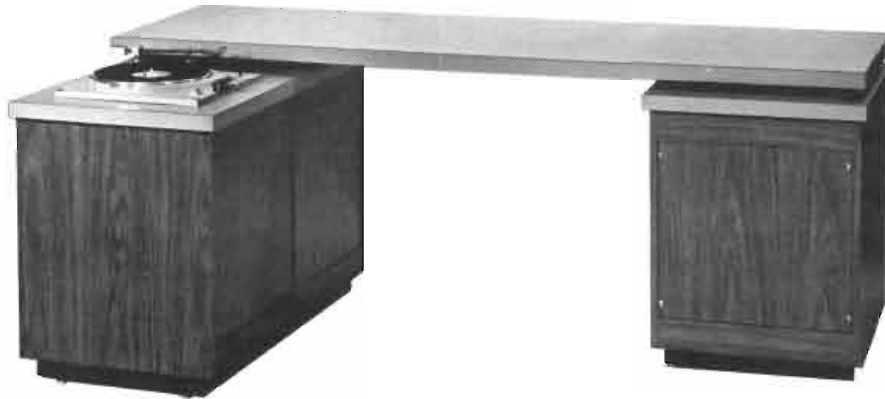
Micro-Trak tone arms feature low resonance and very small tracking errors. Available in 12 and 16 inch models.

No. 303 12"

No. 306 16"



Desk Top Unit



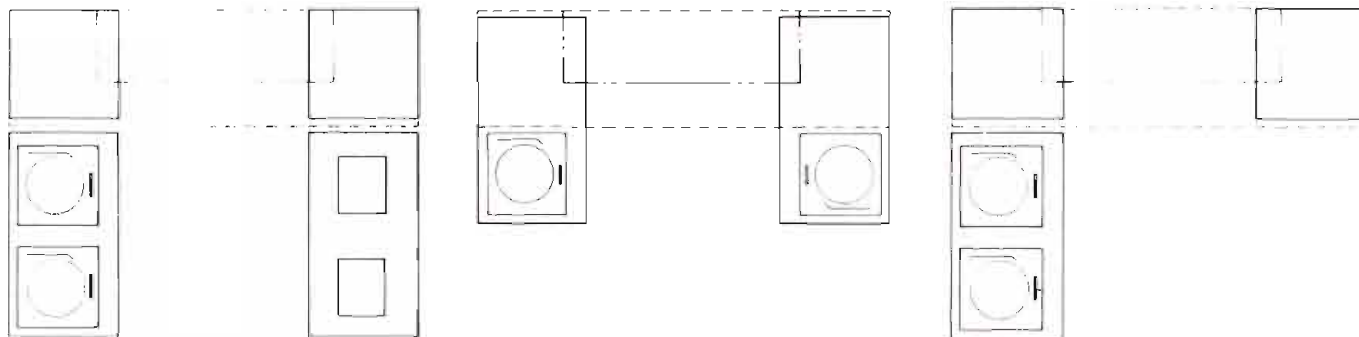
- MODULAR DESIGN FOR COMPLETE FLEXIBILITY.
- SINGLE AND DUAL TURNTABLE CABINETS.
- DESK TOP SECTION MOUNTS ON CABINETS OR METAL LEGS.

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

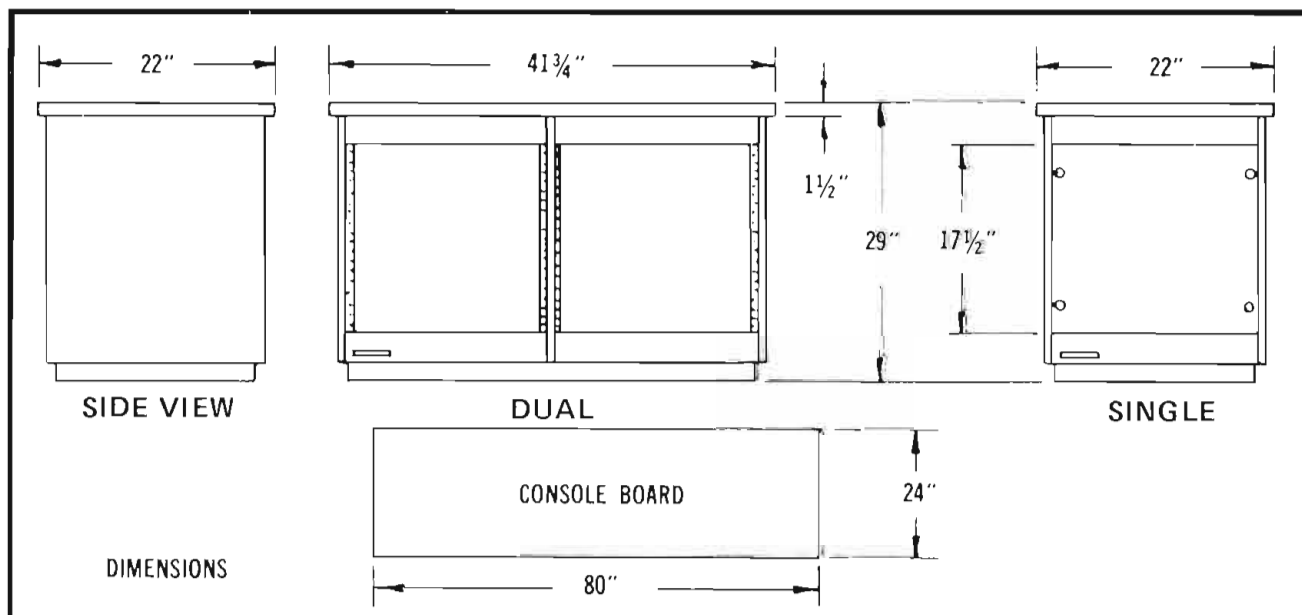
- Size:** 41-3/4" wide x 22" depth x 29" height.
- Finish:** "Summer Pecan" wood grain formica on vertical surfaces, French Blue formica on cabinet top. (Special colors available on order at extra cost.)
- Construction:** Panels fabricated from high density particle board 3/4" thick (front and rear closure 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

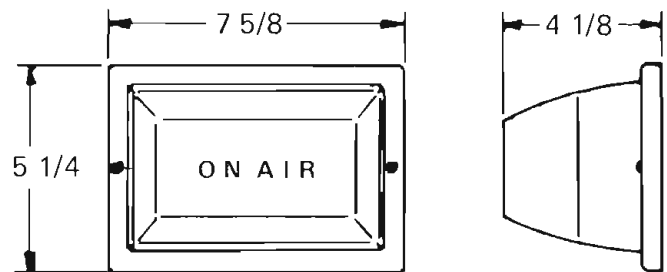
Combines quartz crystal technology with sophisticated electronic circuitry to create one of the world's most accurate clocks.

Warning Light

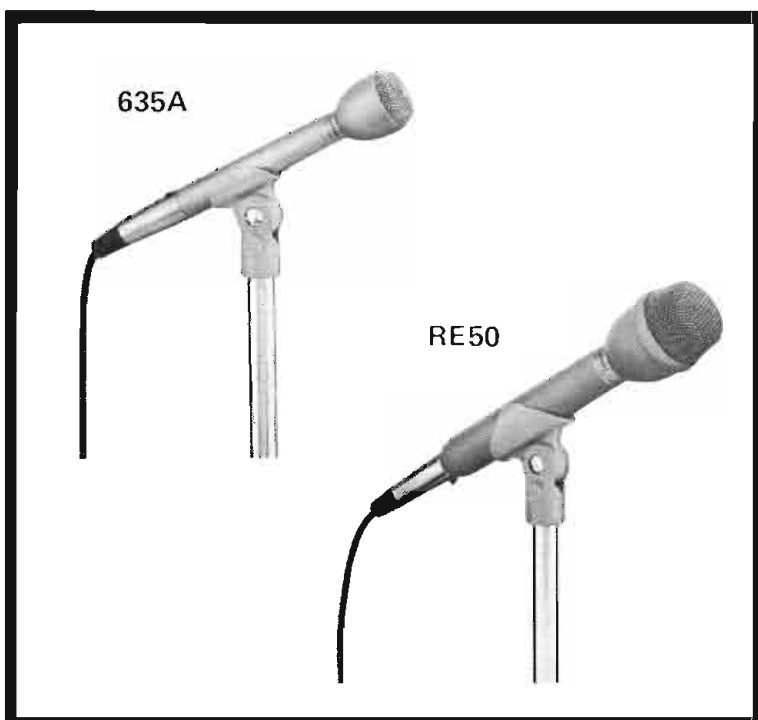


- OPTIONAL "ON-AIR" OR "AUDITION" SILK-SCREENING
- HORIZONTAL OR VERTICAL FORMATS
- UNIQUE DESIGN — READILY ADAPTABLE TO ANY OFFICE/STUDIO DECOR

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



635A: Most popular professional quality performer's microphone. Smooth, carefully shaped response yields "flat effect" when used close up. Built-in four-stage pop and breath blast filter. Wide dynamic range, freedom from proximity effect, assures consistent results regardless of working distance/No windscreen necessary.

Cable and mounting clamp furnished. Response: 80 to 13,000 Hz. Lo-Z. Output level: -55 dB. Finish: Fawn beige Micromatte.

RE50: Noiseless Hand & Stand For vocals, interviewing, instrumental broadcast, and recording. Extremely low susceptibility to mechanical shock, handling and cord noise, or breath pops due to unique double case design separated by rubber isolation mounting. Non-reflecting fawn beige Micromatte finish. Same ruggedness and electrical characteristics of the 635A. Cable and mounting clamp furnished. Response: 80 to 13,000 Hz. Output: -55 dB. Impedance: Lo-Z.

TELCO/80 and TELCO/90 Automatic Telephone Message Systems

TELCO/80 for use with 400, 500 and 605/610 series cartridge machines

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



The TELCO 80/90 units provide audio and cartridge recorder-reproducer control interfaces with the Western Electric RDM/RDL Recorder Connectors. They give the user the option of fully automatic or manual announcement play and/or message record operation. These capabilities are totally unique in telephone/tape cartridge interface devices:

- Automatic playing of a pre-recorded announcement, or two announcements in sequence.
- Automatic playing of a pre-recorded announcement and then recording a message of open or limited length from caller.
- Automatically answer and directly record a message from the caller.
- Manually play cartridge or record cartridge during a telephone conversation with a single button.

- All functions provided with two permanently connected cartridge units – no patching or reconnection.
- Each incoming call or manual operation is automatically tallied, regardless of operating mode.
- Power totally derived from the connected SPOTMASTER machines; each machine can function with the TELCO unit completely independent of the other (disconnected, power off, unloaded, or disabled, etc.).
- Absolutely no interference with the connected telephone when in the Manual mode.
- Each TELCO 80/90 can be used with any SPOTMASTER model in the correct series (see above) simply by changing the connecting adaptor cable; no wiring changes to the TELCO are necessary (Note: one-time wiring changes may be necessary on machine remote control connector in some earlier models, for use with TELCO 80/90).

Controls

Manual/Automatic Select: Selects operational mode. Will allow Recorder Connector to start cartridge machine, seize phone line, and connect audio path in Auto mode, when ringing voltage is sensed.

Manual Play: Connects audio to phone line and starts cartridge deck in play position. Phone line is held by TELCO even if handset is replaced in cradle, until message is over or distant party disconnects (most newer exchanges).

Manual Record: Same as Manual Play, but record cartridge deck is activated. Unless disabled, this deck will be in record mode and will hold line until manually stopped, automatically re-cues, or distant party disconnects.

Auto Play Only: Starts playback deck and seizes line when ringing voltage is sensed. The line is released when the cartridge re-cues. The TELCO will only seize the line if a cartridge is loaded and actually starts.

Auto Play/Record: Will play the pre-recorded announcement as in Play Only mode. When the TELCO detects the 150 Hz (Q1) closure from the playback deck, the audio direction of the recorder connector is reversed (RDL version), the record deck is started in the record mode, and a tone is sounded to the distant party. The TELCO can be wired so that the playback deck re-cue disconnects the phone line and stops the recording, or the distant party disconnect or recording cartridge re-cue can disconnect the line.

If the second deck is a play only deck, and the RDM (bi-directional audio) Recorder Connector is used, two different announcements can be aired in sequence. The second deck re-cue will disconnect the phone line.

Auto Record Only: The ring-up voltage will start the record deck directly, and switch audio to its line input. The function is the same as the second half of the Play/Record mode.

Specifications

Dimensions: 10-1/8" W x 2-3/4" H x 8-5/8" D.

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

Power: Required voltage supplied from associated cartridge machine.

Play Audio Monitor: Allows normal use of cartridge machine without disconnecting the TELCO 80/90.

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:

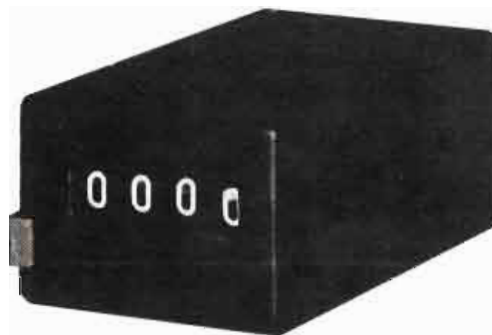
- | | | |
|---|---|---|
| Telco IIIB Incoming calls only | } | Interface with 500 series, 605 series & 3/70. |
| Telco IIIC Incoming and out-going calls | | |
| Telco IVB Incoming calls only | } | Interface with 10/70 series. |
| Telco IVC Incoming and out-going calls | | |



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

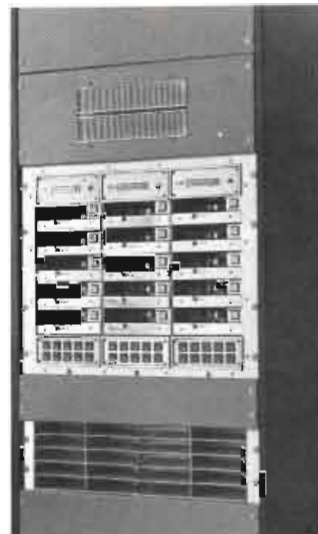
THE SENSIBLE APPROACH TO AUTOMATION

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 (Q1) 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 Q1 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.

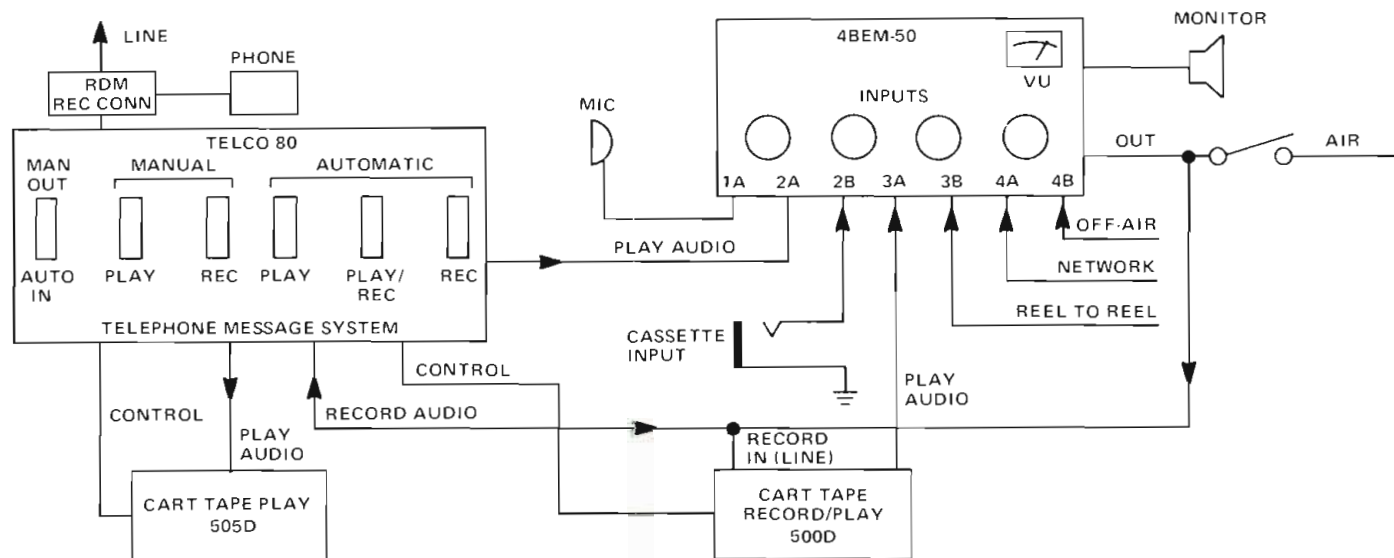
SEE DIAGRAM NEXT PAGE →

SPOTMASTER News Center

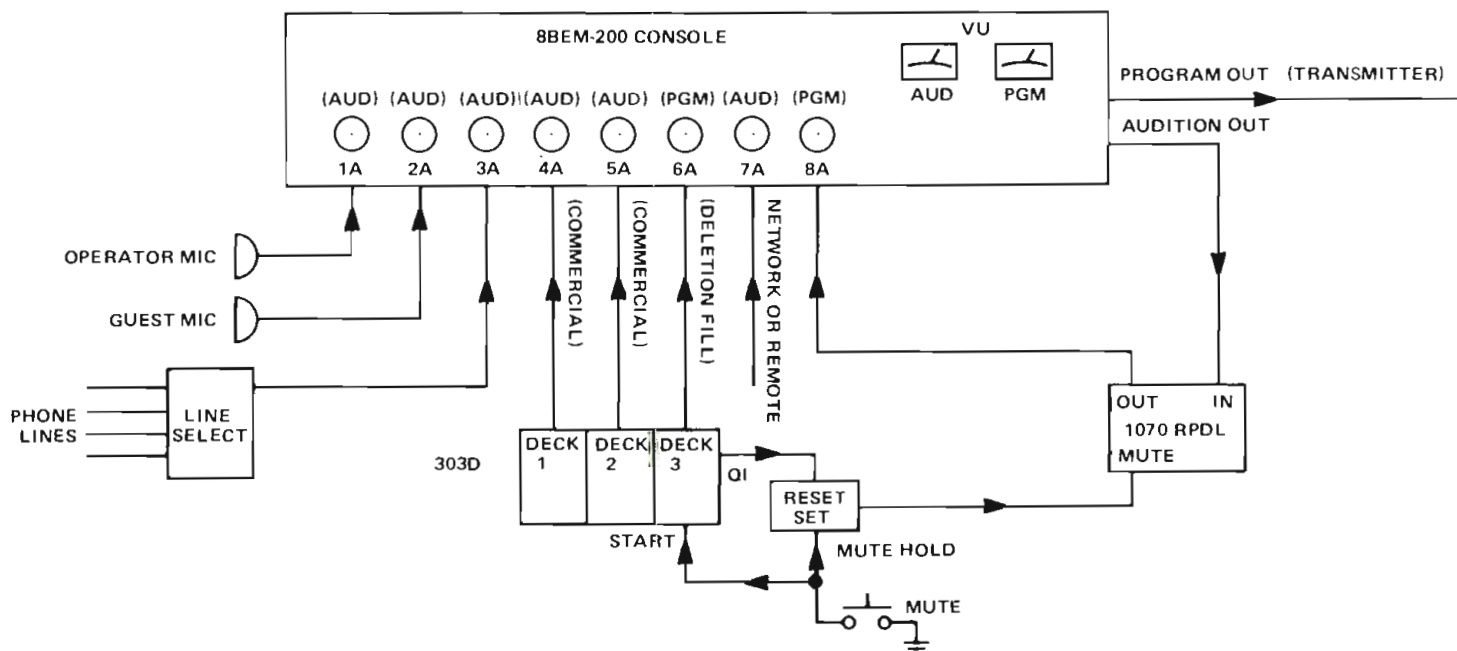
- UNATTENDED TELEPHONE ANSWERING AND PLACING OF ANNOUNCEMENTS
- MANUAL TELEPHONE OPERATION
- PRODUCTION AND EDITING INCLUDING DUBBING FROM THE PLAY TO RECORD CARTRIDGE WITHOUT INTERFERING WITH NORMAL PHONE USE
- ON THE AIR BROADCAST OF LIVE OR PRE-RECORDED AUDIO

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	EXTENDER	
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	
MIXER TYPE	SEALED	SEALED (STEP**)	STEREO SEALED (STEP**)	STEP LADDER	STEREO STEP LADDER	SEALED (STEP**)	STEREO SEALED (STEP**)	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 (18K), -20 dBm NOMINAL, +10 dBm MAXIMUM										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											
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, +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% @ +18 dBm											
NOISE		65 dB (UNWEIGHTED) BELOW +8 dBm OUTPUT WITH -50 dBm INPUT									-72 dB		
MONITOR (SPEAKER)	1.5W	8W	4W (2W/CHAN)	8W	16W (8W/CHAIN)	8W	4W (2W/CHAN)	8W	16W (8W/CHAIN)	10W	20W (10W/CHAN)	N/A	
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 1 AUD	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

*PLUG-IN OPTIONS
**OPTION

All Consoles Feature:

- DUAL CHANNEL OPERATION
- 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

NEW FROM *Spotmaster*
“elegance
and simplicity”

These words best describe SPOTMASTER'S new SERIES 2000 tape cartridge machines – a most significant step forward in 15 years of SPOTMASTER history and integrity.

The SERIES 2000 are reliable, long-life broadcast quality machines. They incorporate unique new proven features which enhance ease of operation, elegance and simplicity.

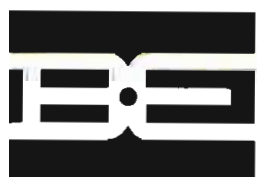
SERIES 2000 cart machines have low power consumption and run cool to protect your tapes. Their noise figure exceeds 57 dB. Start/stop times are the fastest in the industry – under 80 milliseconds. Standard features include balanced transformer output, 1000 Hz cue, 150 Hz cue, and provision for remote control and telephone interface.

Separate front panel plug-in modules are used to implement record and audition functions. These add flexibility and permit instant field conversion of SERIES 2000 playback machines. Table top units accept A, B, and C size cartridges, and the dual rack mount configuration accepts size A and B cartridges.

WE OFFER THESE NEW MACHINES WITH AN UNPRECEDENTED 18 MONTH WARRANTY. WE ALSO HAVE A FEW CLINCHERS – WITHOUT SACRIFICING QUALITY, PERFORMANCE AND DURABILITY – OUR LOW PRICES.

Spotmaster[®]

SERIES 2000
CARTRIDGE MACHINES



BROADCAST ELECTRONICS INC.

— A FILMWAYS COMPANY —

8810 BROOKVILLE ROAD
SILVER SPRING, MD. 20910
PHONE 301-588-4983
TWX 710-825-0432
CABLE "SPOTMASTER"

Spotmaster

Equipment Price List

(Domestic U.S.)

EFFECTIVE MARCH 1, 1974



BROADCAST ELECTRONICS
— A FILMWAYS COMPANY —

8810 BROOKVILLE ROAD ■ SILVER SPRING, MARYLAND 20910 ■ PHONE 301-588-4983 ■ CABLE "SPOTMASTER"

TWX 710-825-0432

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
TEN/70 SERIES				
1070RP	900-1070	Monaural record/playback, compact unit	\$ 1,249.00	B
1070P	900-1071	Monaural playback unit, compact	897.00	B
1070RP/S	900-1073	Stereo record/playback unit, with PHASE-LOK Head Bracket	1,550.00	B
1070P/S	900-1074	Stereo playback unit with PHASE-LOK Head Bracket	1,079.00	B
1070RP/DL	900-1072	Delay unit, record/playback, compact (single speed)	1,335.00	B
1070SDL	900-1075	Stereo Delay Programmer (single speed)	1,750.00	B
	912-1020	Installed Cue Trip I Tone Generator (150 Hz for F-F Auto-Cue automatic sequencing)	45.00	B
	912-1022	Installed Cue Trip II Tone Generator (8 KHz) for auxiliary use	45.00	B
	910-2010	Installed Cue Trip I Tone Sensor (150 Hz)	55.00	B
	910-2011	Installed Cue Trip II Tone Sensor (8 KHz)	55.00	B
		NOTE: Cue Trip Options not available for Model 1070SDL.		
	830-0500	Installed Microphone pre-amplifier kit (for RP and RP/DL models)	65.00	B
	--	Installed Power Conversion; 115 VAC/50 Hz - 220 - 240V/50 Hz	40.00	B
RA70	921-1070	Rack Panel Adaptor for (2) 1070 units or (1) 1070 and (1) RM10	61.00	C
	489-0464	Chassis Slides for rack adaptor, (pair)	28.00	C
RC-1070	904-1070	Remote Control, all functions; suitable for adaption to console or rack mounting	109.00	C
	944-1071	Cabling for above, supplied pre-wired to connectors; \$20.00. PLUS	.90/ft.	C
PL-HB1	952-7600	Stereo PHASE-LOK Head Bracket, playback, less heads	45.00	C
PL-HB2	952-7601	Stereo PHASE-LOK Head Bracket, record/playback, less heads	55.00	C
RM10	818-0010	Cartridge Rack (10 slot storage) for use with 921-1070 adaptor	43.00	C
EB-103	919-1030	Test extender PCB Module	24.00	F

THREE/70 SERIES

370 A	900-3700	Spacesetter compact monaural reproducer	499.00	B
INSTALLED OPTIONS				
	370-0030	600 ohm balanced output transformer	22.00	B
	--	Power Conversion; 115V, 220V, 240V/50 Hz	40.00	B
	--	3.75 ips conversion (only @ 60 Hz)	N/C	
	921-1070	Rack Adaptor (holds 3 units)	61.00	C
	489-0464	Chassis slides for above	28.00	C

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
500D & 400B SERIES				
500D	900-0500	Monaural record/playback unit, compact	\$ 797.00	B
500DR	901-0500	Monaural record/playback unit, rack mounting	830.00	B
505D	900-0505	Monaural playback unit, compact	598.00	B
505D/A	900-0507	Monaural playback unit with built-in amplifier and headphone monitoring system	705.00	B
505DR/A	901-0507	As per above, for rack mounting	735.00	B
505DR	901-0505	Monaural playback, rack mounting with slides	630.00	B
500B/SA	900-0501	Stereo record/playback unit, compact	1,150.00	B
500BR/SA	901-0501	Stereo record/playback unit, rack mounting with slide	1,235.00	B
505B/SA	900-0506	Stereo playback unit, compact	770.00	B
505BR/SA	901-0506	Stereo playback unit, rack mounting with slides	840.00	B
500D/DL	900-0502	Delay, record/playback unit, compact	880.00	B
500DR/DL	901-0502	Delay, record/playback unit, rack mounting with slides	950.00	B
400B	900-0400	Monaural record/playback unit, compact	625.00	B
405B	900-0405	Monaural playback unit, compact	455.00	B
	---	Installed Cue Trip I Tone Generator (150 Hz)	39.00	B
	---	Installed Cue Trip II Tone Generator (8 KHz) for 500 Series only	39.00	B
	---	Installed Cue Trip I Tone Sensor (150 Hz)	61.00	B
	---	Installed Cue Trip II Tone Sensor (8 KHz) for 500 Series only	61.00	B
	911-3010	Installed Microphone Preamplifier	32.00	B
	417-0303	(Optional with 400A, 500CR Series)		
	370-0026	Installed Balanced Output Transformer (optional with 400 Series)	22.00	B
	---	Installed Power Conversion; 115V/50 Hz - 220 - 240V/50 Hz	39.00	B
FIELD INSTALLATION KITS FOR 500C, 505C, 500CR, 505CR				
	830-0100	Field Installation Kit, Cue Trip I Sensor (trade-in credit for unit under warranty)	127.00	C
	830-0101	Field Installation Kit, Cue Trip I Generator	36.80	C
	830-0200	Field Installation Kit, Cue Trip II Sensor	60.00	C
	830-0201	Field Installation Kit, Cue Trip II Generator	36.00	C
FIELD INSTALLATION KITS FOR 400A, 405A, 500BS, 505BS, 500BRS, 505BRS				
	830-0100A	Field Installation Kit, Cue Trip I Sensor	60.00	C
	830-0101	Field Installation Kit, Cue Trip I Generator	36.00	C
FIELD INSTALLATION KITS FOR 500BS, 505BS, 500BRS, 505BRS				
	830-0200	Field Installation Kit, Cue Trip II Sensor	60.00	C
	830-0201	Field Installation Kit, Cue Trip II Generator	46.00	C
ACCESSORIES				
BE102	904-0102	Remote Control, 3 start/stop functions w/15 ft. cable	49.00	C
	944-1020	Extension Remote Control Cable; 0.30 per ft., PLUS		C
D2ADJ-1	830-0010	Adjustable Head Bracket Kit for (1) head	18.00	C
D2ADJ-2	830-0020	Adjustable Head Bracket Kit for (2) heads	22.00	C

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
MINI SERIES				
MULTI-CHANNEL PLAYBACK				
303D		MONOPHONIC, Three-Deck Playback Series		
	902-3036	1 Output w/Audio Switcher	\$ 1,620.00	C
	902-3037	1 Output w/Audio Switcher, Cue Trip I Sensor (150 Hz)	1,830.00	C
	902-3038	1 Output w/Audio Switcher, Cue Trip I, II Sensor (150 Hz, 8 KHz)	1,930.00	C
	902-3030	3 Isolated Outputs	1,700.00	B
	902-3031	3 Isolated Outputs, w/Cue Trip I Sensor (150 Hz)	1,925.00	B
	902-3032	3 Isolated Outputs, w/Cue Trip I, II Sensor (150 Hz, 8 KHz)	2,200.00	B
303D		STEREOPHONIC, Three-Deck Playback Series		
	902-3046	1 Stereo Output w/Audio Switcher	2,080.00	B
	902-3047	1 Stereo Output w/Cue Trip I Sensor (150 Hz)	2,295.00	B
	902-3048	1 Stereo Output w/Cue Trip I, II Sensor (150 Hz, 8 KHz)	2,395.00	B
	902-3040	3 Isolated Stereo Outputs	2,180.00	B
	902-3041	3 Isolated Stereo Outputs, w/Cue Trip I Sensor (150 Hz)	2,395.00	B
	902-3024	3 Isolated Stereo Outputs, w/Cue Trip I, II Sensor (150 Hz, 8 KHz)	2,495.00	B
305D		MONOPHONIC, Five-Deck Playback Series		
	902-3056	1 Output w/Audio Switcher	2,370.00	B
	902-3057	1 Output w/Audio Switcher, Cut Trip I Sensor (150 Hz)	2,665.00	B
	902-3058	1 Output w/Audio Switcher, Cue Trip I, II Sensor (150 Hz, 8 KHz)	2,835.00	B
	902-3050	5 Isolated Outputs	2,470.00	B
	902-3051	5 Isolated Outputs, w/Cue Trip I Sensor (150 Hz)	2,765.00	B
	902-3052	5 Isolated Outputs, w/Cue Trip I, II Sensor (150 Hz, 8 KHz)	2,935.00	B
305D		STEREOPHONIC, Five-Deck Playback Series		
	902-3066	1 Stereo Output, w/Audio Switcher	2,940.00	B
	902-3067	1 Stereo Output, w/Cue Trip I Sensor (150 Hz)	3,240.00	B
	902-3068	1 Stereo Output, w/Cue Trip I, II Sensor (150 Hz, 8 KHz)	3,505.00	B
	902-3060	5 Isolated Stereo Outputs	3,165.00	B
	902-3061	5 Isolated Stereo Outputs, w/Cue Trip I Sensor (150 Hz)	3,465.00	B
	902-3062	5 Isolated Stereo Outputs, w/Cue Trip I, II Sensor (150 Hz, 8 KHz)	3,640.00	B
OPTIONS				
	904-0303	303C Remote Control	80.00	C
	904-0305	305C Remote Control	95.00	C
	944-3050	Cabling for above, pre-wired to connectors; \$20.00 PLUS	.90/ft.	C
RA33	921-0033	Rack Panel Adaptor for (3) 303 units	215.00	C
RA35	921-0035	Rack Panel Adaptor for (3) 305 units	245.00	C
ESD-15	904-0015	1 to 15 Deck Pre-Select Sequencer	310.00	C
	---	Field Installed Audio Switcher for 303 Series	115.00	C
	---	Field Installed Audio Switcher for 305 Series	110.00	C
EB-102	919-1020	Test Extender PCB Module	25.00	F
	---	Installed Power Conversion; 220/240V, 50 Hz	35.00	B
	---	Installed Power Conversion; 115V/50 Hz	30.00	B

Note: All Mini-Series units furnished with walnut Formica covered wooden side panels unless when ordered for rack mounting.

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
FIVE SPOT/TEN SPOT				
605C	902-0605	5 Channel Playback unit in Formica Cabinet w/Emitter Follower Output	\$ 1,895.00	B
605C	902-0605A	5 Channel Playback unit in Formica Cabinet w/Balanced Transformer Output	1,995.00	B
605CR	902-0606	5 Channel Playback unit, Rack Mounting, w/Cartridge Storage Cubicle, Emitter Follower Output	1,895.00	B
605CR	902-0606A	5 Channel Playback unit, Rack Mounting, w/Cartridge Storage Cubicle and Balanced Transformer Output	1,995.00	B
610CR	902-0610	10 Channel Playback unit, Rack Mounting, Emitter Follower Output	3,550.00	B
610CR	902-0610A	10 Channel Playback unit, Rack Mounting w/Balanced Transformer Output	3,750.00	B
610CX	SP-205	Automatic Audio System w/6 playback and 2 record/playback channels	5,095.00	B
610CX	SP-205-1	As per above, supplied with pre-wired 51" high control console	5,927.00	B
	910-0041	Installed Cue Trip I Sensor (1 per channel)	64.00	B
	912-0050	Installed Cue Trip II Sensor (1 per channel)	64.00	B
	--	605B Power Conversion, 115V/50 Hz (installed)	34.00	B
	--	605B Power Conversion, 220V/50 Hz (installed)	45.00	B
	--	610B Power Conversion, 115V/50 Hz (installed)	62.00	B
	--	610B Power Conversion, 220V/50 Hz (installed)	84.00	B
	830-0100	Field Installation Kit for Cue Trip I Sensor	64.00	C
	830-0200	Field Installation Kit for Cue Trip II Sensor	64.00	C
SW5B	904-0005	Audio Switcher; switches any of five audio channels to pgm line (transformer output)	220.00	C
BE106	904-0106	Remote Control, 5 start/stop functions and sequencing indicator, illuminated buttons w/15 ft. cable	285.00	C
MRM-600A	904-0600	Record Module, plug-in replacement for any 605/610 playback deck, w/record head	255.00	C
	949-0605	Cue Trip Sequencing Cable for 605B	10.50	C
EB-101	919-1010	Test Extender PCB Module	23.00	F
TELEPHONE ANSWERING ACCESSORIES				
III/B	904-0003	Telco Telephone Answering Accessory for 400/500 and 370 Series	110.00	C
III/C	904-0006	Telco Telephone Answering Accessory w/manual-automatic switch & remote start for 400/500 and 370 Series	135.00	C
IV/B	904-0007	Telco for TEN/70 Series	125.00	C
IV/C	904-0008	As per 904-0006 for TEN/70 Series	139.00	C
TC-4	290-0404	Telco Automatic Counter	25.00	C
TELCO 80	904-0080	Record/Play Telephone Answering Interface System for 400/500 Series Cartridge Machines	190.00	C
TELCO 90	904-0090	Record/Play Telephone Answering Interface System for 1070 Series Cartridge Machines	215.00	C

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL</u>	
			<u>NET</u>	<u>CODE</u>
CARTRIDGE WINDERS AND ACCESSORIES				
BETM-100	904-0001	Tape Cartridge Winder	\$ 150.00	C
BETM-200	904-0002	Tape Cartridge Winder w/Timer	175.00	C
	---	Power Conversion to 115/230V, 50 Hz	40.00	C
BET-50	830-0001	Calibrated Tape Timer	49.00	C
3M156	823-1800	Scotch Lubricated Tape, 1800 ft., 7" Reel	7.50	E
3M156	823-3600	Scotch Lubricated Tape, 3600 ft., NAB Hub	14.40	E
	823-1700	Audiotape 17 Lubricated Tape, 1800 ft. Reel	7.00	E
	823-3601	Audiotape 17 Lubricated Tape, 3600 ft. Hub	13.95	E
TS7S	824-0007	Tape Splicer	8.90	E
TST376	824-0376	Mylar Splicing Tape (3/8 x 275")	1.10	E
200C	820-0200	Bulk Tape Eraser, Hand Held 115V, 50/60 Hz	30.00	E
220C	820-0220	Bulk Tape Eraser, Hand Held 230V, 50/60 Hz	33.00	E
300C	820-0300	Bulk Tape Eraser, Heavy Duty, Table Top 115V, 50/60 Hz	55.00	E
330C	820-0301	Per above; 220V, 50/60 Hz	58.00	E
	820-0040	Tape Head Demagnetizer, 115V, 50/60 Hz	9.95	E
BE903	832-9031	Cleaning Fluid, 4 oz.	1.75	C
BE903	832-9032	Cleaning Fluid, 16 oz.	5.90	C
BE903	832-9033	Cleaning Fluid, 32 oz.	7.90	C
TEST TAPES (in cartridges)				
	808-0001	Monaural Head Alignment Tape (10 KHz)	11.00	E
350STA	808-0004	Stereo Frequency Response & Alignment Tape (50 Hz to 15 KHz)	39.00	E
	808-0003	NAB Mono Frequency Response & Test Tape	20.00	E
CARTRIDGE RACKS				
RM20	818-0020	Stores 20, Series 300 Cartridges, Rack Mounting (5¼" high)	47.00	C
RS25	816-0025	Wire Metal Rack Section, holds 25 cartridges	14.50	C
RM100	810-0100	Wall Mounting, Formica Covered, holds 100 cartridges	72.00	C
DM20	812-0655	Wall or Table Mounting; walnut cabinet, holds 20 cartridges	14.75	B
DM40	812-0650	Table Top Lazy Susan, holds 40 cartridges	33.00	B
DM72	812-0072	Lazy Susan Module, Formica Covered for table top use, holds 72 cartridges	86.00	C
DM200	812-0200	As per above, holds 200 cartridges	130.00	C
LS100	812-0100	Lazy Susan Wire Metal unit for table top use, holds 100 cartridges	90.00	C
LS200	814-0200	Lazy Susan Wire Metal unit, floor stand w/heavy duty casters, holds 200 cartridges	162.00	C
SPLICE DETECTOR				
BESD-500	829-0001	Automatic Splice Detector and Bulk Eraser	390.00	E

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
FIDELIPAC CARTRIDGES				
*LOADED CARTRIDGES (at 7.5 ips)				
5% DISCOUNT ON QUANTITIES OF 100 OR MORE CARTS.				
300 Series	800-0013	20 Seconds (13 feet)	\$ 2.00	C
	800-0025	40 Seconds (25 feet)	2.05	C
	800-0044	70 Seconds (44 feet)	2.10	C
	800-0063	100 Seconds (63 feet)	2.25	C
	800-0088	140 Seconds (88 feet)	2.35	C
	800-0132	3.5 Minutes (132 feet)	2.50	C
	800-0207	5.5 Minutes (207 feet)	2.90	C
	800-0320	8.5 Minutes (320 feet)	3.70	C
	800-0394	10.5 Minutes (394 feet)	3.90	C
600	801-0600	16 Minutes (600 feet)	6.25	C
1200	802-1163	31 Minutes (1163 feet)	10.45	C
<i>*Cartridges loaded to any length - upon request. For pricing, use next highest standard cartridge price.</i>				
EMPTY CARTRIDGES				
300	800-0000	Fidelipac Unloaded Cartridge	1.60	C
600	801-0000	Fidelipac Unloaded Cartridge	2.80	C
1200	802-0000	Fidelipac Unloaded Cartridges	3.95	C
DELAY CARTRIDGES				
300DL	800-0004	6 Second Delay Cartridge		
	--	5 Seconds to 2 Minutes (specify length)	5.25	C
	--	2:01 Minutes to 5 Minutes (specify length)	7.80	C
	--	+8:31 Minutes Prices on request		
AUDIOPAK CARTRIDGES (A2)				
	800-1000	Empty Audiopak	1.75	C
	800-1013	20 Seconds (13 feet)	2.00	C
	800-1025	40 Seconds (25 feet)	2.00	C
	800-1044	70 Seconds (44 feet)	2.05	C
	800-1056	90 Seconds (56 feet)	2.10	C
	800-1063	100 Seconds (63 feet)	2.20	C
	800-1088	140 Seconds (88 feet)	2.25	C
	800-1094	2.5 Minutes (94 feet)	2.30	C
	800-1132	3.5 Minutes (132 feet)	2.45	C
	800-1207	5.5 Minutes (207 feet)	2.85	C
	800-1320	8.5 Minutes (320 feet)	3.65	C
	800-1394	10.5 Minutes (394 feet)	3.80	C
TAPE TAGS (8 per sheet)				
	834-0000	Black		
	834-0001	Brown		
	834-0002	Red	Quantity 1 to 49 Sheets (per sheet)	.14 C
	834-0003	Orange	50 to 299 Sheets (per sheet)	.10 C
	834-0004	Yellow	300 to 499 Sheets	9.00/100 Shts. C
	834-0005	Green	+500 Sheets	8.00/100 Shts. C
	834-0006	Blue		
	834-0007	Purple		

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
AUDIO AMPLIFIERS				
CLE-500	837-0500	Spotmaster Sound Britener Compressor-Limiter Expander	\$ 700.00	C
CLA-20-40	837-4000	Compressor-Limiter Amplifier, rack mounting Mono (order 2 matched units for Stereo)	480.00	C
MA-10	837-0010	Monitor Amplifier; 10 watt, rack mounting	100.00	C
PLA-20	837-0020	Program/Line Amplifier; +20 dBm, rack mounting	150.00	C
AD1B	903-0010	Audio D.A.; 1 in, 5 out, rack mounting Emitter Follower Output	365.00	C
AD1B/T	903-0011	Audio D.A.; 1 in, 5 out, rack mounting Balanced Transformer Outputs	440.00	C
AD1BX	903-0012	5-Channel Extender for use with AD1B rack mounting, Emitter Follower Output	260.00	C
AD1BX/T	903-0012	5-Channel Extender for use with AD1B, rack mounting, Balanced Transformer Output	375.00	C
SPOTMASTER MODULAR AMPLIFIER GROUP				
BEA-400	837-0400	Main Frame w/power supply & provision for four modules	170.00	C
BELM-100	837-0401	Line Amplifier Module	52.00	C
BEPM-200	837-0402	Power Amplifier	52.00	C
SPOTMASTER AUDIO CONSOLE/MIXERS				
4BEM-50	838-0450	SPOTMASTER 4-Mixer Monophonic Console	425.00	E
5BEM-100	838-0510	SPOTMASTER 5-Mixer Monophonic Console, sealed Pots	750.00	C
5BEM-200	838-1511	SPOTMASTER 5-Mixer Deluxe Monophonic Console, Daven Type Att., Pushbutton	1,195.00	C
5BES-100	838-0520	SPOTMASTER 5-Mixer Stereophonic Console, Sealed Pots	1,050.00	C
5BES-200	838-0521	SPOTMASTER 5-Mixer Deluxe Stereophonic Console, Daven Type Attenuators	1,995.00	C
8BEM-100	838-0810	SPOTMASTER 8-Mixer Monophonic Console, Sealed Pots	1,295.00	C
8BEM-200	838-0811	SPOTMASTER 8-Mixer Deluxe Monophonic Console Daven Type Attenuators	2,295.00	B
8BES-100	838-0820	SPOTMASTER 8-Mixer Stereophonic Console, Sealed Pots	1,895.00	C
8BES-200	838-0821	SPOTMASTER 8-Mixer Deluxe Stereophonic Console, Daven Type Attenuators	3,245.00	B
AUDIO CONSOLE OPTIONS				
BE-10A		Rack Adaptor for 4-Mixer Only	45.00	E
BE-11A		230/50 Hz for all units	44.00	E
BE-12A		Extender Panel for 100 Series Only	425.00	E
BE-13A		Extender Panel for 200 Series Only	625.00	E
BE-14A		Mono Matrix Card for 5BES-100 and 8BES-100	48.00	E
BE-15A		Line Amplifier for Audition Channel 5BES-100 and 8BES-100	48.00	E
BE-16A		Second Muting Relay for 8BES-100	13.00	E
MICROPHONE MIXERS				
M-67	828-0067	Shure microphone mixer	162.00	C
M-68	828-0068	Shure microphone mixer	84.00	C

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
		RECEIVER		
AA-1	829-0002	Miratel Air Alert 1 EBS Receiver	199.95	E

CONSOLE FURNITURE, FRENCH BLUE TOP WITH PECAN CABINETS

833-0001	SPOTMASTER Single Turntable Floor Cabinet (22" x 22" x 29")	175.00	C
833-0002	SPOTMASTER Dual Section Floor Cabinet (42" x 22" x 29")	275.00	C
833-0003	SPOTMASTER Console Desk Top (80" x 24" x 1½")	105.00	C
833-0101	SPOTMASTER Leg, chrome, tapered (4 req'd. for free-standing console section)	9.00	C

Note: Add \$15.00 for turntable cut-out

ON-AIR STUDIO LIGHTS

835-0001	ON-AIR Light, Vertical format	\$ 47.00	C
835-0002	ON-AIR Light, Horizontal format	48.00	C
835-0003	AUDITION Light, Vertical format	48.00	C
835-0004	AUDITION Light, Horizontal format	48.00	C

STUDIO CLOCKS (Battery Powered – C Cell)

BECL-100	835-0100	SPOTMASTER Quartzmatic, white face	59.00	C
BECL-200	835-0100A	SPOTMASTER Quartzmatic, tan face	59.00	C

PROFESSIONAL TURNTABLES, 12"

821-0001	SPOTMASTER, Studio Pro-B, direct-drive 2 speed turntable (33-1/3, 45) w/hys. syn. motor	233.00	E
821-0007	SPOTMASTER, CueMaster, direct-drive 3 speed turntable (33-1/3, 45, 78) w/hys. syn. motor)	214.00	E
—	Power Conversion to 50 Hz	35.00	E
821-0008	Special color felt pad and custom painted	on request	E

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
SPOTMASTER TURNTABLE PREAMPLIFIERS				
BETMS-100	827-0100	SPOTMASTER Monaural/Stereo Equalized preamplifier (less transformer output) phase reversal features	\$ 120.00	C
BETMS-200	827-0200	SPOTMASTER Monaural/Stereo Equalized preamplifier w/transformer output	148.50	C
		230/50 Hz Installed	44.00	E
MICROTRACK (GRAY) TONE ARMS				
303	821-0303	12" Micro-Track Arm	79.50	E
306	821-0306	16" Micro-Track Arm	89.50	E
206S	821-0206	12" Tone Arm, Viscous damped	74.50	E
206SG	821-0207	12" Tone Arm, for VR11 Cartridge	74.50	E
CARTRIDGES, TONE ARM				
500AA	821-5002	Stanton Cartridge, .5 mil stylus	19.25	C
500AL	821-5000	Stanton Cartridge, .7 mil (extra heavy duty)	16.50	C
681A	821-6810	Stanton Cartridge, calibration standard, .7 mil stylus	36.30	C
681EE	821-6812	Stanton Cartridge, .2 x .7 mil elliptical stylus	39.60	C
M44-5	821-4450	Shure Cartridge, .5 mil stylus	21.95	C
M44-7	821-4470	Shure Cartridge, .7 mil stylus	19.95	C
M44-C	821-4400	Shure Cartridge, heavy tracing force, .7 mil	17.95	C
REPLACEMENT STYLI				
D5107A	821-5003	Stylus for 500A Cartridge	6.60	E
D5105AA	821-5004	Stylus for 500AA Cartridge	9.90	E
D5107AL	821-5001	Stylus for 500AL Cartridge	6.60	E
D6807A	821-6811	Stylus for 681A Cartridge	16.50	E
D6800EE	821-6813	Stylus for 681EE Cartridge	19.80	E
N44-5	821-4451	Stylus for M44-5 Cartridge	11.00	E
N44-7	821-4471	Stylus for M44-7 Cartridge	9.75	E
N44-C	821-4401	Stylus for M44-C Cartridge	9.70	E
(Additional Models; Other Manufacturers Available)				
REEL-TO-REEL TAPE RECORDERS SPOTMASTER/REVOX - MARK IIIB -				
1301BR	822-1301	SPOTMASTER/Revox, 10½" reel-to-reel Tape Recorder, Stereo/Mono 3.75 - 7.5 ips, rack mount 14" with aluminum face plate, full track	\$ 1,059.00	E
1301BR/HS	822-1301A	SPOTMASTER/Revox, Same as 1301BR except high speed	1,169.00	E
1302BR	822-1302	SPOTMASTER/Revox, 10½" reel-to-reel Tape Recorder, Stereo/Mono 3.75 - 7.5 ips, rack mount 14", with aluminum face plate	1,009.00	E
1302BR/HS	822-1302A	SPOTMASTER /Revox, Same as 1302BR except high speed	1,119.00	E

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
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REEL-TO-REEL TAPE RECORDERS (cont'd.)

1304BR	822-1304	SPOTMASTER/Revox, 10½" reel-to-reel Tape Recorder, Stereo/Mono 3.75 - 7.5 ips, rack mount 14", with aluminum face plate	\$ 1,009.00	E
1304BR/HS	822-1304	SPOTMASTER/Revox, Same as 1304BR except high speed	1,119.00	E
1101C	822-1101	Revox Tape Deck, Same as 1301BR except desk mount with cabinet	1,009.00	E
1102C	822-1102	Revox Tape Deck, in walnut cabinet (2 TR)	949.00	E
1104C	822-1104	Revox Tape Deck in walnut cabinet (4 TR)	949.00	E
1122C	822-1122	Revox Tape Deck in walnut cabinet w/8 watt dual power amplifier (2 TR)	1,075.00	E
1124C	822-1124	Same as 1122C except 4 TR	1,075.00	E
1222S	822-1222	Revox Tape Deck in suitcase, w/ amplifiers and speakers 2 TR	1,099.00	E
1224S	822-1224	Same as 122S except 4 TR	1,099.00	E

FACTORY INSTALLED OPTIONS:

HS77		High Speed Option, 7.5 - 15 ips, add HS77 to Model No. and . . . ADD	100.00	E
Full Track		Full Track Head Option; only available with high speed . . . ADD	110.00	E
Sel-Sync		Allows separate synchronized recording of 2 master channels in addition to existing internally wired sound-on-sound, echo, etc. . . . ADD	125.00	E
Variable Pitch		External Potentiometer Control of servo motor (-10 to +15% variation of selected speed) . . . ADD	75.00	E
Dolby B		Available only with standard speed units (3.75 - 7.5 ips) . . . ADD	200.00	E

OPTIONAL ACCESSORIES:

--	822-0001	NAB Locking Reel Adaptors (Pair)	20.00	E
--	822-0005	10½" Empty Reels, ¼" Centers	3.95	E
1605	822-1605	Mechanical Remote Control w/Self-locking play-record button, 15 ft. cable	35.00	E
1610	822-1610	As per 1605, w/30 ft. cable	39.00	E
1705	822-1705	Illuminated Remote Control complete w/transistorized lamp control circuitry for remote indication of actual machine status	49.00	E
1705A	822-1705A	As per 1705, with automatic rewind function	65.00	E
--	822-0006	Plug-in Power Amplifiers, (2 furnished), each 8 watt RMS	100.00	E
--	822-0002	Service Manual	10.60	E
--	822-0007	Tinted Dust Cover	15.00	E
--	822-0008	Waterproof Cover	9.95	E
3M150	823-1502	Scotch Audio Tape, 1.0 mil on 1800 ft. reel, ¼" Centers	6.50	E

Reel-to-Reel MRL Precision 1/4 Inch Test Tapes

T-104	823-1040	Frequency response test tape on 7" reel; NAB equalized, 7.5 ips, full track	29.90	E
J-105	823-1050	Per above, @ 15 ips	29.90	E
F-101	823-1010	Per above, @ 3.75 ips	29.90	E
T-102	823-1020	Per above, IEC standards equalized, 7.5 ips	29.90	E
A-108	823-1080	Azimuth error test tape, 7" reel, 2 track	33.00	E
A-109	823-1090	Per above, 4 track	33.00	E

Note: All Test Tapes furnished with test data chart and are serialized.

<u>MODEL</u>	<u>STOCK NO.</u>	<u>DESCRIPTION</u>	<u>PROFESSIONAL NET</u>	<u>CODE</u>
MICROPHONES				
Electro-Voice				
635A	825-0635	Microphone, omnidirectional dynamic	\$ 56.70	E
654A	825-0654	Microphone, omnidirectional slim-trim	72.00	E
664A	825-0664	Microphone, cardioid, dynamic	57.00	E
649B	825-0649	Microphone, Lavalier	73.50	E
RE10	825-0010	Super Cardioid (80 to 13 KHz)	99.60	E
RE15	825-0015	Super Cardioid, highest quality (80 to 15 KHz)	169.80	E
RE85	825-0085	Shock mounted Lavalier	85.50	E
630	825-0630	Low cost omnidirectional, w/switch	34.20	E
1751	825-1751	E/V Electret Condenser microphone, cardioid w/switch & breath filter	75.00	E
1711	825-1711	E/V Electret Condenser, omnidirectional w/switch	59.70	E
<i>Note: No separate supply req'd. with Electret microphones. Use AA-size batteries.</i>				
418	825-0418	Desk Stand for 664A	9.30	E
420	825-0420	Desk Stand for 654A	15.00	E
421	825-0421	Desk Stand for 635A	12.60	E

LUXO MICROPHONE ARM

LM-1-41A	825-0001	Luxo Arm with portable "C" type mounting clamp	28.00	C
LM-1-41C	825-0002	Luxo Arm with table-top, permanent screw down mount	28.00	C

Note: Also available to balance with microphones up to 3 lbs. on special order.

TERMS AND CONDITIONS OF SALE

ORDERING INFORMATION:	List item descriptions as they appear in this price schedule or illustrated catalog on your company letterhead or purchase order. Any special instructions should be clearly made a part of the order. We assume no liability for orders when placed by bona fide employees. Orders placed by telephone should be confirmed in writing and must be clearly marked "confirming" or we cannot assume liability for duplicate shipments
PRICES:	Prices listed herein are subject to change without prior notice.
F.O.B.:	Prices are FOB Silver Spring, Maryland, or point of shipment. All transportation costs are the obligation of the buyer, unless otherwise stated.
TERMS OF SALE:	<p>Broadcast Electronics, Inc. will ship on open account to companies having established accounts with us, or to firms with an acceptable Dunn & Bradstreet rating. Open account billing provides terms of NET 30 Days from date of invoice. Open account privileges assume strict adherence to billing terms. Accounts are not available to individuals.</p> <p>Cash sales providing for a 2% discount are available, providing payment in full accompanies the order.</p> <p>COD service is available, especially recommended for small rush orders.</p> <p>Extended payment and lease terms are available. Write for details.</p>
SHIPPING METHOD:	<p>Unless specifically stated by the buyer, we will exercise our best judgment as to method of shipment. A full range of shipping services is available. We have no facilities for handling shipments by interstate bus systems.</p> <p>All goods are either insured or declared for full value and the cost thereof, as part of shipping charges. Claims for damage, either concealed or obvious, are the responsibility of the buyer. Inspection of damaged goods by the delivering carrier is usually the first step necessary. We can assist with specific claims problems.</p>
SERVICE:	Technical assistance is available by letter or prepaid telephone or telegram. Equipment requiring repair or overhaul should be sent by common carrier, prepaid, insured and well protected. Do not mail equipment. We can assume no liability for inbound damage and necessary repairs become the obligation of the shipper. No prior arrangement is necessary providing full instructions accompany the goods.
RETURN OF GOODS:	Unused goods will be accepted for return within thirty days of purchase subject to a re-stocking and handling charge. Liability for a safe, insured, prepaid return rests with the shipper. Do not return any equipment without prior written approval and return authorization. We will provide shipping instructions and a RA number that will assure proper handling and issuance of credit. Custom manufactured equipment is not returnable.

LEASING & TIME PAYMENT PLANS ON REQUEST.

ORDER FORMS

TO: **BROADCAST ELECTRONICS, INC.**
8810 Brookville Rd., Silver Spring, Md. 20910

Please ship the following SPOTMASTER products.

- Check enclosed, less 2% cash discount
 Ship on open account, my Purchase Order No. _____

QTY.	STOCK NO.	DESCRIPTION	PRICE

NOTE: Prices are FOB, Silver Spring, Maryland

- Please have a representative contact me.

NAME _____ TITLE _____

STATION OR ORGN. _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

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STATION OR ORGN. _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

MODEL	DESCRIPTION	PROFESSIONAL NET
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**SPOTMASTER TELEPHONE INTERFACE SYSTEMS
FOR USE WITH BROADCAST QUALITY
TAPE CARTRIDGE MACHINES**

TELCO 80	Record/Play Telephone Answering Interface System for 400/500/600 Series Cartridge Machines includes counter	\$ 160.00
TELCO 90	Record/Play Telephone Answering Interface System for 1070 and 370 Series Cartridge Machines includes counter	170.00



Short Form Price List (Domestic U.S.)

For complete price lists, catalogs and additional information contact your SPOTMASTER[®] Distributor or Broadcast Electronics, Inc.

EFFECTIVE
APRIL 1, 1975



**VIDEO
MONITORS**

Broadcast Electronics, Inc. Modtec Division manufactures monochrome video monitors.



**BROADCAST
ELECTRONICS INC.**

— A FILMWAYS COMPANY —

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ELECTRONICS INC.**

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CABLE "SPOTMASTER"

NEW WEST COAST SALES OFFICE:
BROADCAST ELECTRONICS, INC.
1604 N. Cahuenga Blvd. • Los Angeles, California 90028
Phone 213-465-1755

MODEL	DESCRIPTION	PROFESSIONAL NET
SERIES 1000 TAPE CARTRIDGE MACHINES		
1000P	Model 1000, Economy Monaural Playback, Compact Unit	\$ 435.00
1000RP	Model 1000, Economy Monaural Record/Playback, Compact Unit	633.00
1000DL	Model 1000, Economy Monaural Delay Programmer	550.00

ACCESSORY

Dual Rack Adapter for Two Series 1000 Units \$ 55.00

SERIES 2000 TAPE CARTRIDGE MACHINES		
2000P	Series 2000, Monaural Playback, Compact Unit	\$ 465.00
2000RP	Series 2000, Monaural Record/Playback Compact Unit complete with Factory Installed Record Module and Head	675.00
2000PA	Series 2000, Monaural Playback/Audition Compact Unit complete with Factory Installed Audio Module	575.00
2000PS	Series 2000, Stereo Playback, Compact Unit	590.00
2000RPS	Series 2000, Stereo Record/Playback Compact Unit complete with Factory Installed Record Module and Head	890.00

ACCESSORY

Dual Rack Adapter for Two Series 2000 Units \$ 55.00

SERIES 3000 TAPE CARTRIDGE MACHINES		
3100P	Mono, Playback Only, A Size Cartridges	\$ 665.00
3100PS	Stereo, Playback Only, A Size Cartridges	765.00
3200P	Mono, Playback Only, A & B Size Cartridges	685.00
3200RP	Mono, Record/Playback, A & B Size Cartridges	1,175.00
3200PS	Stereo, Playback Only, A & B Size Cartridges	785.00
3200RPS	Stereo, Record/Playback, A & B Size Cartridges	1,350.00
3200DL	Mono, Delay Programmer, A & B Size Cartridges	1,100.00
3200SDL	Stereo, Delay Programmer, A & B Size Cartridges	1,300.00
3300P	Mono, Playback Only, A, B & C Size Cartridges	735.00
3300RP	Mono, Record/Playback, A, B & C Size Cartridges	1,225.00
3300PS	Stereo, Playback Only, A, B & C Size Cartridges	815.00
3300RPS	Stereo, Record/Playback, A, B & C Size Cartridges	1,385.00

ACCESSORIES

Rack Mount Shelf for EIA 19" Rack \$ 53.00
 Rack Shelf Filler Panel, 1/3 Rack 15.00
 Rack Shelf Filler Panel, 1/2 Rack 20.00

SERIES 4000 TAPE CARTRIDGE MACHINES		
4200P	Mono, Playback Only, A & B Size Cartridges	\$ 690.00
4200PS	Stereo, Playback Only, A & B Size Cartridges	795.00
4300P	Mono, Playback Only, A, B & C Size Cartridges	750.00
4300RP	Mono, Record/Playback, A, B & C Size Cartridges	1,230.00
4300PS	Stereo, Playback Only, A, B & C Size Cartridges	830.00
4300RPS	Stereo, Record/Playback, A, B & C Size Cartridges	1,395.00

ACCESSORIES

Rack Mount Shelf for EIA 19" Rack \$ 53.00
 Rack Shelf Filler Panel, 1/2 Rack 20.00

MODEL	DESCRIPTION	PROFESSIONAL NET
SERIES 500 TAPE CARTRIDGE MACHINES		
500D	Monaural Record/Playback Unit, Compact	\$ 830.00
500DR	Monaural Record/Playback Unit, Rack Mounting with Slides	870.00
505D	Monaural Playback Unit, Compact	625.00
505DR	Monaural Playback, Rack Mounting with Slides	640.00
500DS	Stereo Record/Playback Unit, Compact	1,150.00
500DRS	Stereo Record/Playback Unit, Rack Mounting with Slides	1,235.00
505DS	Stereo Playback Unit, Compact	790.00
505DRS	Stereo Playback Unit, Rack Mounting with Slides	870.00
500D/DL	Delay, Record/Playback Unit, Compact	895.00
500DR/DL	Delay, Record/Playback Unit, Rack Mounting with Slides	980.00

THREE/70 SERIES MINIATURE PLAYBACK TAPE CARTRIDGE MACHINES

370A	Spacesetter Compact Monaural Reproducer	\$ 521.00
ACCESSORY		
RA70	Rack Panel Adapter for (3) 370 Units, Complete with Chassis Slides (pair)	\$ 100.00

TEN/70 SERIES TAPE CARTRIDGE MACHINES

1070RP	Monaural Record/Playback, Compact Unit less Microphone Input	\$1,249.00
1070RP	Monaural Record/Playback, Compact Unit with Microphone Input	1,319.00
1070P	Monaural Playback Unit, Compact	897.00
1070RPS	Stereo Record/Playback Unit, with PHASE-LOK Head Bracket	1,550.00
1070PS	Stereo Playback Unit with PHASE-LOK Head Bracket	1,079.00
1070RP/DL	Delay Unit, Record/Playback, Compact (Single Speed)	1,335.00
1070SDL	Stereo Delay Programmer (Single Speed) with PHASE-LOK Head Bracket	1,750.00

ACCESSORIES

RA70	Rack Panel Adapter for (2) 1070 Units or (1) 1070 and (1) RM10, Complete with Chassis Slides (pair)	\$ 100.00
RM10	Cartridge Rack (10 slot storage) for use with rack panel adapter	55.00
EB103	Test Extender PCB Module	24.00

MULTI-DECK TAPE CARTRIDGE MACHINES INDUSTRY STANDARD FIVE-SPOT AND TEN-SPOT SERIES

605C	5 Channel Playback Unit in Formica Cabinet w/Emitter Follower Output	\$1,995.00
605C	5 Channel Playback Unit in Formica Cabinet w/Transformer Output	2,095.00
605CR	5 Channel Playback Unit, Rack Mounting, w/Cartridge Storage Cubicle, Emitter Follower Output	1,995.00
605CR	5 Channel Playback Unit, Rack Mounting, w/Cartridge Storage Cubicle and Transformer Output	2,095.00
610CR	10 Channel Playback Unit, Rack Mounting, Emitter Follower Output	3,750.00
610CR	10 Channel Playback Unit, Rack Mounting, w/Transformer Output	3,950.00
610CX	Automatic Audio System w/6 Playback and 2 Record/Playback Channels	\$5,295.00

MODEL	DESCRIPTION	PROFESSIONAL NET
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**MULTI-DECK TAPE CARTRIDGE MACHINES
INDUSTRY STANDARD 3-DECK AND 5-DECK MINI-SERIES**

303D	MONOPHONIC, Three-Deck Playback Series	
	1 Output w/Audio Switcher	\$1,570.00
	1 Output w/Audio Switcher, Cue Trip I Sensor (150 Hz)	1,780.00
	1 Output w/Audio Switcher, Cue Trip I, II Sensors (150 Hz, 8 kHz)	1,880.00
	3 Isolated Outputs	1,650.00
	3 Isolated Outputs, w/Cue Trip I Sensor (150 Hz)	1,875.00
	3 Isolated Outputs, w/Cue Trip I, II Sensors (150 Hz, 8 kHz)	2,095.00
305D	MONOPHONIC, Five-Deck Playback Series	
	1 Output w/Audio Switcher	2,250.00
	1 Output w/Audio Switcher, Cue Trip I Sensor (150 Hz)	2,490.00
	1 Output w/Audio Switcher, Cue Trip I, II Sensors (150 Hz, 8 kHz)	2,750.00
	5 Isolated Outputs	2,380.00
	5 Isolated Outputs, w/Cue Trip I Sensor (150 Hz)	2,670.00
	5 Isolated Outputs, w/Cue Trip I, II Sensors (150 Hz, 8 kHz)	2,850.00
303DS	STEREOPHONIC, Three-Deck Playback Series with PHASE-LOK Head Bracket	
	1 Stereo Output w/Audio Switcher	1,920.00
	1 Stereo Output w/Cue Trip I Sensor (150 Hz)	2,195.00
	1 Stereo Output w/Cue Trip I, II Sensors (150 Hz, 8 kHz)	2,295.00
	3 Isolated Stereo Outputs	1,995.00
	3 Isolated Stereo Outputs, w/Cue Trip I Sensor (150 Hz)	2,295.00
	3 Isolated Stereo Outputs, w/Cue Trip I, II Sensors (150 Hz, 8 kHz)	2,395.00
305DS	STEREOPHONIC, Five-Deck Playback Series with PHASE-LOK Head Bracket	
	1 Stereo Output, w/Audio Switcher	2,750.00
	1 Stereo Output, w/Cue Trip I Sensor (150 Hz)	2,995.00
	1 Stereo Output, w/Cue Trip I, II Sensors (150 Hz, 8 kHz)	3,350.00
	5 Isolated Stereo Outputs	2,870.00
	5 Isolated Stereo Outputs, w/Cue Trip I Sensor (150 Hz)	3,250.00
	5 Isolated Stereo Outputs, w/Cue Trip I, II Sensors (150 Hz, 8 kHz)	3,450.00

ACCESSORIES

RA33	Rack Panel Adapter for (3) 303 Units	\$ 175.00
RA35	Rack Panel Adapter for (3) 305 Units	195.00
EB103	Test Extender PCB for 10 pin plug-in modules (303 or 305)	24.00

CARTRIDGE MACHINE ACCESSORIES - REMOTE CONTROLS

BE-102	370, 400 Series, 500 Series, Remote Control, 3 start/stop functions w/15 ft. cable.	\$ 56.00
BE-106	605 Remote Control, 5 start/stop functions and sequencing indicator, illuminated buttons w/15 ft. cable	285.00
		\$
303D	303D Remote Control Includes 15' of Cable	131.00
305D	305D Remote Control Includes 15' of Cable	143.00
RC-1070	1070 Remote Control, all functions: suitable for adding to console or for rack mounting including 15' cable	144.00

MODEL	DESCRIPTION	PROFESSIONAL NET
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REMOTE CONTROLS (Continued)

3000	3000 Remote Control Panel, START for 5 Units	35.00
3000	3000 Remote Control Panel, Single Record/Playback Model	55.00
4000	4000 Remote Control Panel, START for 5 Units	35.00
4000	4000 Remote Control Panel, Single Record/Playback Model	55.00

**CARTRIDGE MACHINE ACCESSORIES
FAULT/SPLICE DETECTORS**

BEFSD-100	Self Contained Fault/Splice Detector	\$ 329.00
BEFSD-200	3000 Fault/Splice Detector for use with up to 2 Record/Playback Units	223.00

CARTRIDGE MACHINE ACCESSORIES - SEQUENCERS/SWITCHERS

SW5B	605/610 Audio Switcher; switches any of five audio channels to program line; 600 ohm transformer equipped (use only with emitter follower output units; two required for 610CR)	\$ 250.00
SW5C	400/500 Audio Switcher for up to 5 Units	250.00
SW5D	2000 Audio Switcher for up to 5 Units	250.00
ESD-15	303/305 1 to 15 Deck pre-select sequencer for up to (3) 303 or (3) 305 Units	345.00

NOTE: ESD-15 requires units equipped with Cue Trip I and single output.

AUDIO CONSOLES - SPOTMASTER VERSA CONSOLE

4BEV-50	4 Mixer Mono Console with Rack Mount Adapters	\$ 465.00
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SPOTMASTER ROTARY MIXER CONSOLES - 50 SERIES MONO

4BEM-50	SPOTMASTER 4-Mixer Monophonic Console	\$ 490.00
4BEM-50R	SPOTMASTER Rack Mount 4-Mixer Monophonic Console	540.00

100/200 SERIES MONO

5BEM-100	SPOTMASTER 5-Mixer Monophonic Console, sealed Pots	\$ 825.00
5BEM-200	SPOTMASTER 5-Mixer Deluxe Monophonic Console, Step Type Attenuators	1,295.00
8BEM-100	SPOTMASTER 8-Mixer Monophonic Console, sealed Pots	1,395.00
8BEM-200	SPOTMASTER 8-Mixer Deluxe Monophonic Console, Step Type Attenuators	2,295.00

100/200 SERIES STEREO

5BES-100	SPOTMASTER 5-Mixer Stereophonic Console, sealed Pots	\$1,150.00
5BES-200	SPOTMASTER 5-Mixer Deluxe Stereophonic Console, Step Type Attenuators	1,995.00
8BES-100	SPOTMASTER 8-Mixer Stereophonic Console, sealed Pots	1,995.00
8BES-200	SPOTMASTER 8-Mixer Deluxe Stereophonic Console, Step Type Attenuators	3,190.00

CONSOLES Continued on next page

For complete price lists, catalogs and additional information contact your SPOTMASTER[®] Distributor or Broadcast Electronics, Inc.

MODEL	DESCRIPTION	PROFESSIONAL NET
SPOTMASTER SLIDE MIXER AUDIO CONSOLE 2006 SERIES MONO/STEREO		
BEML-2006-6	SPOTMASTER modular SLIDEMOD monophonic console with linear slide faders. Equipped with 6 input modules (mixers). Accommodates up to 10 input modules	\$1,890.00
BEML-2006-10	SPOTMASTER monophonic SLIDEMOD console with 10 input modules (mixers)	\$2,590.00
BESL-2006-6	SPOTMASTER modular SLIDEMOD stereophonic console with linear slide faders. Equipped with 6 input modules (mixers). Accommodates up to 10 input modules.	2,395.00
BESL-2006-10	SPOTMASTER stereophonic SLIDEMOD console with 10 input modules (mixers)	3,395.00

AUDIO PROCESSING AND DISTRIBUTION AMPLIFIERS

CLE-500	SPOTMASTER Sound Britener Compressor-Limiter-Expander for AM Broadcasting or Mono Recording	\$ 750.00
CLE-FM	SPOTMASTER FM Sound Britener for Mono	1,395.00
CLE-FM	SPOTMASTER FM Sound Britener for Stereo	1,595.00
CLA-20-40A	Compressor-Limiter Amplifier, rack mounting Mono (order 2 matched units for stereo)	490.00
AD1B	Audio D.A.; 1 in, 5 out, rack mounting, Emitter Follower Output	385.00
AD1B/T	Audio D.A.; 1 in, 5 out, rack mounting, Transformer Outputs	460.00
AD1BX	5-Channel Extender for use with AD1B, rack mounting, Emitter Follower Output	280.00
AD1-BX/T	5-Channel Extender for use with AD1B, rack mounting, Transformer Output	395.00
BEM-10	Monitor Amplifier, 10 watt, rack mounting	130.00

STUDIO EQUIPMENT PROFESSIONAL REEL-TO-REEL RECORDER SPOTMASTER SERIES 6000

6000	Series 6000, 2 channel 1/2 Track R/PB/E, 1/4 Track, PB; 7 1/2/15 ips; cabinet mount	\$1,590.00
6000	Series 6000, 2 channel, 1/4 Track R/PB/E, 1/2 Track PB; 7 1/2/15 ips; cabinet mount	1,590.00

STUDIO EQUIPMENT BROADCAST AND RECORDING MICROPHONES

635A	Microphone, omnidirectional dynamic	\$ 60.00
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STUDIO EQUIPMENT SPOTMASTER TURNTABLE PRE-AMPLIFIERS

BETMS-100	SPOTMASTER Monaural/Stereo Equalized Pre-amplifier (less transformer output) phase reversal feature	\$ 120.00
BETMS-200	SPOTMASTER Monaural/Stereo Equalized Pre-amplifier w/transformer output, phase reversal feature	148.50

STUDIO EQUIPMENT PROFESSIONAL TURNTABLES

	SPOTMASTER, Studio Pro-B 12", direct-drive 2 speed turntable (33-1/3, 45) w/hys. syn motor	\$ 254.00
	SPOTMASTER, CueMaster 12", direct-drive 3 speed turntable (33-1/3, 45, 78) w/hys. syn motor	224.50

MODEL	DESCRIPTION	PROFESSIONAL NET
STUDIO EQUIPMENT MICRO-TRAK TONE ARMS		
303	12" Micro-Trak Arm	\$ 79.50
CARTRIDGES, TONE ARM		
500AA	Stanton Cartridge, .5 mil stylus	\$ 19.25
500AL	Stanton Cartridge, .7 mil (extra heavy duty) stylus	16.50

STUDIO EQUIPMENT CONTROL ROOM FURNITURE

	SPOTMASTER Single Turntable Floor Cabinet (22" x 22" x 29")	\$ 189.00
	SPOTMASTER Dual Section Floor Cabinet (42" x 22" x 29")	299.00
	SPOTMASTER Console Desk Top (80" x 24" x 1 1/2")	120.00
	SPOTMASTER Leg, chrome, tapered (4 req'd. for free-standing console section)	11.00
	SPOTMASTER Spacer block to mount desk top to floor cabinet, includes hardware	5.00

ON-AIR STUDIO LIGHTS

	ON-AIR Light, Vertical format	\$ 47.00
	ON-AIR Light, Horizontal format	48.00
	AUDITION Light, Vertical format	48.00
	AUDITION Light, Horizontal format	48.00

STUDIO CLOCKS (Battery Powered - C Cell)

BECL-100	SPOTMASTER Quartzmatic, white face	\$ 64.00
BECL-200	SPOTMASTER Quartzmatic, tan face	64.00

SPOTMASTER CARTRIDGE STORAGE FACILITIES

RM20	Stores 20, A Size Cartridges, Rack Mounting (5 1/2" high)	\$ 56.00
RS20	Wire Rack Section, holds 20 A Size Cartridges	11.00
RS25	Wire Rack Section, holds 25 A Size Cartridges	14.50
RM100	Wall Mounting, Formica Covered, holds 100 A Size Cartridges	85.00
DM20	Wall or Table Mounting; walnut cabinet, holds 20 A Size Cartridges	14.75
DM40	Table Top Lazy Susan, holds 40 A Size Cartridges	33.00
DM72	Lazy Susan Module, Formica Covered for table top use, holds 72 A Size Cartridges	86.00
DM200	As per above, holds 200 A Size Cartridges	157.00
LS100	Lazy Susan Wire Unit for Table Top Use, holds 100 A Size Cartridges	97.00
LS200	Lazy Susan Wire Unit, floor stand w/heavy duty casters, holds 200 A Size Cartridges	162.00

STUDIO AND CARTRIDGE ACCESSORIES

CARTRIDGE WINDERS

BETM-100	Tape Cartridge Winder 115V, 50/60 Hz	\$ 150.00
BETM-200	Tape Cartridge Winder w/Timer, 115V, 50/60 Hz	175.00

ERASERS

200C	Bulk Tape Eraser, Hand Held 115V, 50/60 Hz	29.50
300C	Bulk Tape Eraser, Heavy Duty, Table Top 115V, 50/60 Hz	55.00



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SPOTMASTER SERIES 2000 TAPE CARTRIDGE MACHINE

Broadcast Electronics, Inc., announces the latest development from the world's largest manufacturer of tape cartridge equipment. The SPOTMASTER® SERIES 2000 was designed with three criteria: the best possible performance, high reliability, and a modest selling price.

- The SERIES 2000 employs the proven SPOTMASTER® tape transport
- Electronics and drive consume little power for cool operation
- Probably the lowest noise figure for any cartridge machine
- Plug-in record module
- Rugged case construction with steel deck plate
- Unique 18 month warranty

The SERIES 2000 uses the original SPOTMASTER® patented tape transport. This deck has been proven during ten years of use in the workhorse 605 FIVE SPOT. In the SERIES 2000, this reliable mechanism is mounted on a steel base for cartridge stability without excessive weight.

The SERIES 2000 uses integrated circuit electronics and an efficient tape drive system for low power consumption. The unit runs cool, stays cool, won't damage tape.

The SERIES 2000 does not compromise on performance. Noise is better than 57dB below a full +16 output. A balanced transformer output is standard.

The SERIES 2000 uses advanced integrated circuitry for simplicity and dependability. Electronic components are minimized. Circuits are simple and straightforward. All areas of the unit are readily accessible for inspection and maintenance.

The SERIES 2000 employs a plug-in record module which may be factory installed or easily added to any playback unit in the field.

The SERIES 2000 includes a full line of accessories to extend its usefulness beyond the studio. All models are wired to accept TELCO telephone answering accessories. A plug-in speaker module permits on-the-spot cartridge monitoring for newsrooms, sales presentations, etc.

SERIES 2000 SPECIFICATIONS

NOISE: Better than 57dB below +8dBm output

FREQUENCY RESPONSE: ± 2 dB, 50-15,000 Hz

DISTORTION: 2% or less at +16dBm output

TAPE SPEED: 7.5 IPS accurate 0.2% or better – Optional 3.75 IPS accurate 0.4% or better

WOW AND FLUTTER: Less than 0.2% RMS (NAB unweighted)

OUTPUT LEVEL: Peak output +16dBm, continuously adjustable

OUTPUT IMPEDANCE: 600 ohms, transformer, balanced

START TIME: 80 milliseconds

STOP TIME: 80 milliseconds

EQUALIZATION: NAB standard

CAPACITY: NAB A, B and C cartridges for table top operation
NAB A and B cartridges for dual rack mount operation

DRIVE: Hysteresis synchronous, indirect

POWER: 117 VAC/60 Hz standard
220 VAC/50 Hz optional
117 VAC/50 Hz optional
220 VAC/60 Hz optional

CUE TONES: 1 KHz stop standard – 150 Hz standard

START/STOP CONTROLS: Illuminated, push button

REMOTE CONTROL: Octal socket; stop, start, TELCO telephone answering accessory,
and 150 Hz cue tone logic ground

CASE CONSTRUCTION: Rugged steel with high durability finish

WARRANTY: 18 month

DIMENSIONS: 5-5/8" high x 8-1/2" wide x 12" deep

WEIGHT: Playback – 14 lb.
record/playback – 15 lb.

OPTIONS

CUE TONES: 8 KHz auxiliary in lieu of standard 150 Hz

RECORD MODULE: Plug-in for factory or simple field installation; includes VU meter, microphone input provision,
and 150 Hz tone generator

RACK ADAPTER: Mounts two SERIES 2000 units side by side in 19" rack

SPEAKER: Plug-in module with 1 watt amplifier and speaker; output jack for external speaker with 10 watt amplifier

POWER/SPEED: 3.75 IPS tape speed
117 VAC/50 Hz operation
220 VAC/50 Hz operation
220 VAC/60 Hz operation

TELEPHONE ANSWERING: Prewired for TELCO telephone answering interface

Spotmaster®

SERIES 2000

NEW SERIES 2000 New Low Cost Cartridge Machines



- SUPERB BROADCAST QUALITY, PERFORMANCE AND RELIABILITY
- ELEGANCE AND SIMPLICITY OF DESIGN WITH PROVEN SPOTMASTER ELECTRICAL AND MECHANICAL FEATURES
- PLUG-IN MODULES FOR RECORD AND AUDITION FUNCTIONS PERMIT FIELD CONVERSION OF PLAYBACK UNITS
- UNPRECEDENTED 18 MONTH WARRANTY

SPOTMASTER'S new Series 2000 tape cartridge machines are the most significant step forward in 15 years of SPOTMASTER history and integrity.

The Series 2000 are reliable, long-life broadcast quality machines. They incorporate unique new proven features which enhance ease of operation, elegance and simplicity.

Series 2000 cart machines have low power consumption and run cool to protect your tapes. Their noise figure exceeds 57 dB. Start/stop times are the fastest in the industry – under 80 milliseconds. Standard features include balanced transformer output, 150 Hz cue, 1000 Hz cue, and provision for remote control and telephone interface.

Separate front panel plug-in modules are used to implement record and audition functions. These add flexibility and permit instant field conversion of Series 2000 playback machines. Table top units accept A, B and C size cartridges, and the dual rack mount configuration accepts size A and B cartridges.

WE OFFER THESE NEW MACHINES WITH AN UNPRECEDENTED 18 MONTH WARRANTY. WE ALSO HAVE A FEW CLINCHERS – WITHOUT SACRIFICING QUALITY, PERFORMANCE AND DURABILITY – OUR LOW PRICES.

Specifications

Noise:	57 dB below +8 dBm output.
Frequency Response:	±2 dB, 50 - 15,000 Hz.
Distortion:	2% or less at +16 dBm output.
Tape Speed:	7.5 ips accurate 0.2% or better. Optional 3.75 ips accurate 0.4% or better.
Wow and Flutter:	Less than 0.2% RMS (NAB unweighted).
Output Level:	Peak output +16 dBm, continuously adjustable.
Output Impedance:	600 ohms, transformer balanced.
Start and Stop Time:	80 milliseconds.
Equalization:	NAB standard.
Capacity:	NAB A, B and C cartridges for table top operation. NAB A and B cartridges for dual rack mount operation.
Drive:	Hysteresis synchronous, indirect.
Power:	117 VAC/60 Hz standard. 220 VAC/50 Hz optional. 117 VAC/50 Hz optional.
Cue Tones:	1 KHz stop standard, 150 Hz standard.
Start/Stop Controls:	Illuminated, push button.

Remote Control:	Octal socket; stop, start, TELCO telephone answering accessory, and 150 Hz cue tone logic ground.
Case Construction:	Rugged steel with high durability finish.
Warranty:	18 month.
Dimensions:	5-5/8" high x 8-1/2" wide x 12" deep.
Weight:	Playback - 14 lb. Record/playback - 15 lb.

OPTIONS

Cue Tones:	8 KHz auxiliary in lieu of standard 150 Hz.
Record Module:	Plug-in for factory or simple field installation; includes VU meter, microphone input provision, and 150 Hz tone generator.
Rack Adapter:	Mounts two SERIES 2000 units side by side in 19" rack.
Speaker:	Plug-in module with 1 watt amplifier and speaker; output jack for external speaker with 10 watt amplifier.
Telephone Answering:	Prewired for TELCO telephone answering interface.