



# AMPRO



If You Didn't Get This From My Site,  
Then It Was Stolen From...

[www.SteamPoweredRadio.Com](http://www.SteamPoweredRadio.Com)

**PROFESSIONAL EQUIPMENT FOR  
BROADCASTING PROFESSIONALS**

# ABOUT AMPRO . . .

Ampro has been a major supplier of professional broadcast equipment to many of the largest broadcast and sound installations for over ten years. For them, Ampro has provided equipment from individual components to complete, custom-designed studios.

From our simplest cartridge machine to our most complex audio console, the Ampro line consists of equipment that has been well-conceived, well-engineered, and well-constructed by experienced broadcasting professionals who know the critical needs of stations and studios. All Ampro equipment features the latest state-of-the-art technology and provides the highest levels of performance, reliability, and total versatility.

Ampro will help you plan your installation to achieve the highest performance standards, taking into consideration highly important human engineering factors to provide you with a comfortable and efficient operating environment. And, after our products are installed and in use, Ampro offers full technical back-up and service to keep your equipment operating at peak performance.

Hundreds of satisfied users know why Ampro is truly Professional Equipment for Broadcasting Professionals.



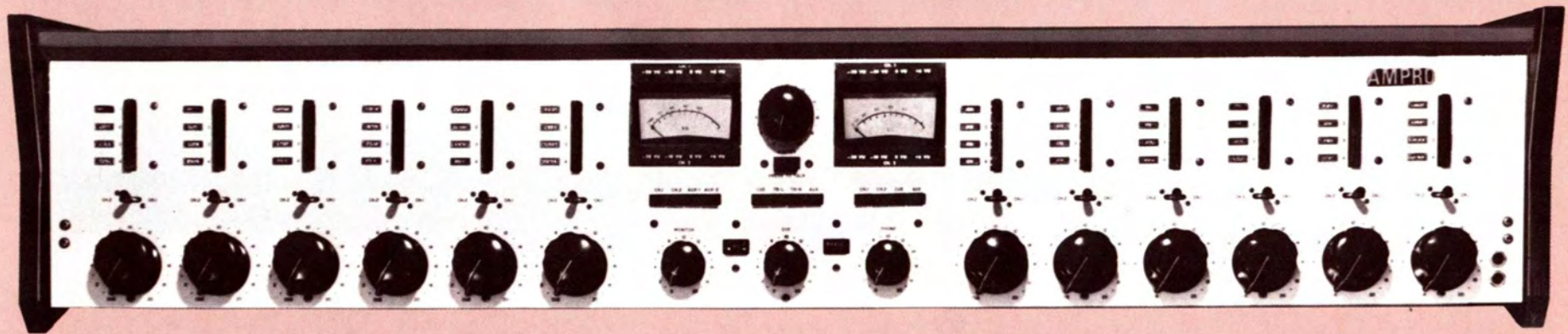
# AMPRO AUDIO CONSOLES

It takes experienced broadcasting professionals to design and engineer state-of-the-art control centers for highest quality performance in demanding production and on-air applications. As a result, Ampro consoles represent the ultimate in electronic and human engineering, to offer you years and years of reliable, outstanding operation.

Providing professional performance and appearance in an attractive, yet rugged package, Ampro consoles are complete, full-function audio control centers, requiring no options. They feature total flexibility and versatility for virtually any control situation, and are available in models with from six to twelve channels. The six-channel console is available in mono, dual mono and stereo — while all eight, ten and twelve channel models are available in mono, dual mono, stereo, dual stereo, and simulcast configurations.

On the following pages you will find the advanced, reliable, rugged features of these Ampro audio consoles completely illustrated and described, with photographs and full specifications. In addition to consoles featuring rotary faders, Ampro also has available several configurations with linear faders. These are listed after the rotary models.

Whatever your choice, you can be assured of the optimum in engineering, performance, operating ease and reliability when you select an Ampro professional audio control center.



Four interlocked pushbutton switches per input channel permit preselection of 24 to 48 sources. A balanced transformer input pre-amp is provided for each channel.

Individual, smooth-operating, step-type rotary faders for each channel—have detented cue switch which is operated just past the maximum attenuation position of the fader.

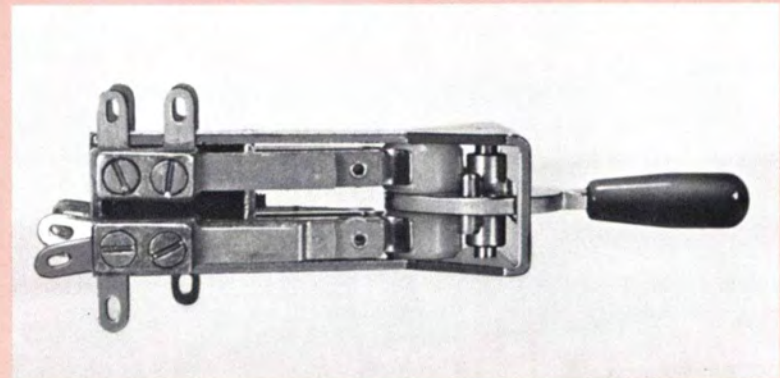
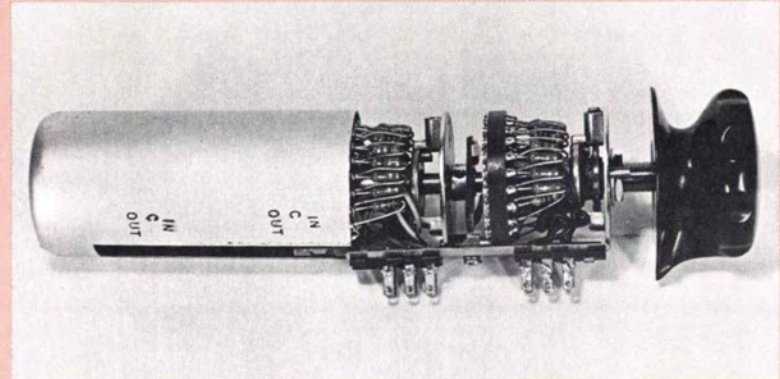
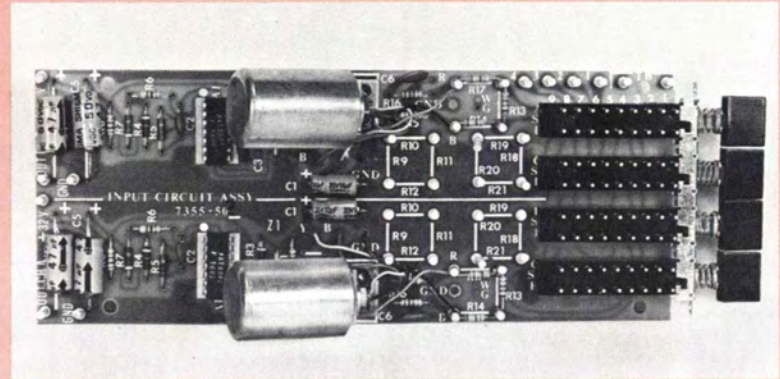
Rugged telephone-grade lever key switches route preamplifier outputs to either the Channel 1 mixing bus or Channel 2 mixing bus. Center "off" position terminates the mixing bus input for minimum feedthrough and crosstalk.

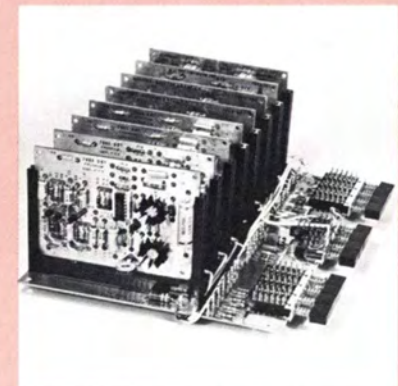
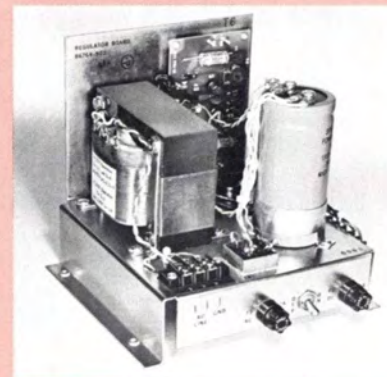
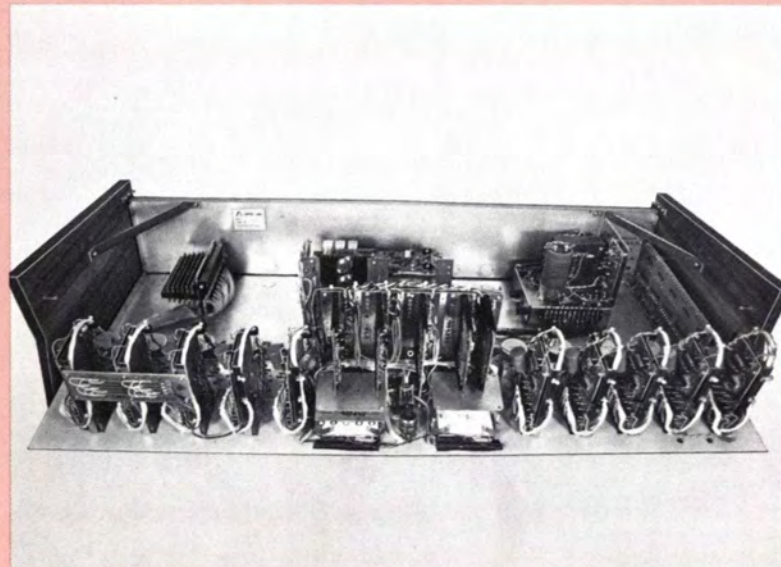
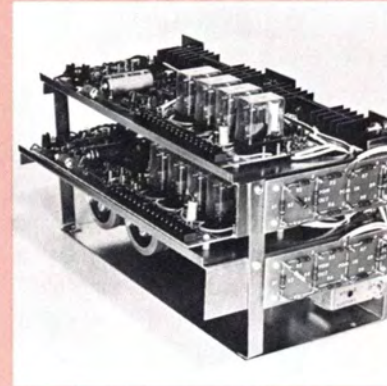
Plug-in modular circuit assembly provides easy access for fast replacement of all program output channels, monitor drivers, cue intercom circuits and headphone amplifiers.

Rugged 20-watt monitor amplifier has four inputs, switch-selectable to either program line or two auxiliary inputs. Dissipation sensing protects against shorts and overloads. Loafs along at full output.

Muting programmer board allows any mike input to control any of the four muted monitor outputs. Electronic relay drivers prevent pops and clicks.

Built-in, flexible Cue/Intercom system allows cue monitoring, two-way communications with either of two studios, and two-way communication and program cue feeds to remote phone line inputs. Built-in cue speaker serves as a sensitive microphone for talkback, and is used with press-to-talk switch. Cue level control knob is located just below selector pushbuttons.





Headphone amplifiers with four switch-selectable inputs drive 600-ohm phones, and are short-proof. Headphone level is controlled by panel-mounted gain control.

Engraved, permanently marked, swing-down front panel allows easy access. Legends and labels won't wear off with use, assure lifetime legibility.

Individual remote-start contacts for each high level channel allow start-control of 4 sources per channel.

Rugged, built-in, electronically regulated and protected power supply provides all required operational voltages. Generous heat-sinking allows regulator to loaf even at maximum output.

LED Peak Reading Indicators — four per output channel — in addition to normal VU meters, allow continuous monitoring of all program outputs. Master gain controls for Channel 1 and 2 are mounted concentrically between the meters, and are independently adjustable.



AMPRO AC-6—Six-channel audio console



AMPRO AC-8—Eight-channel audio console

# SPECIFICATIONS

## 6-CHANNEL AUDIO CONSOLES (Rotary Faders)

MODEL	TYPE	INPUTS		DIMENSIONS	WEIGHT
		Mic	Hi-level		
Model AC6MB	Monaural	12	12	11" h. x 33-3/8" w. x 20 1/2" d.	40 lbs.
Model AC6DB	Dual Mono	12	12	11" h. x 33-3/8" w. x 20 1/2" d.	45 lbs.
Model AC6SB	Stereo	12	12	11" h. x 33-3/8" w. x 20 1/2" d.	50 lbs.

## 8-CHANNEL AUDIO CONSOLES (Rotary Faders)

Model AC8MB	Monaural	16	16	11" h. x 39-3/8" w. x 20 1/2" d.	47 lbs.
Model AC8DB	Dual Mono	16	16	11" h. x 39-3/8" w. x 20 1/2" d.	52 lbs.
Model AC8SB	Stereo	16	16	11" h. x 39-3/8" w. x 20 1/2" d.	57 lbs.
Model AC8DSB	Dual Stereo	16	16	11" h. x 39-3/8" w. x 20 1/2" d.	57 lbs.
Model AC8SCB	Simulcast	16	16	11" h. x 39-3/8" w. x 20 1/2" d.	57 lbs.

## 10-CHANNEL AUDIO CONSOLES (Rotary Faders)

Model AC10MB	Monaural	16	24	11" h. x 45-3/8" w. x 20 1/2" d.	54 lbs.
Model AC10DB	Dual Mono	16	24	11" h. x 45-3/8" w. x 20 1/2" d.	59 lbs.
Model AC10SB	Stereo	16	24	11" h. x 45-3/8" w. x 20 1/2" d.	64 lbs.
Model AC10DSB	Dual Stereo	16	24	11" h. x 45-3/8" w. x 20 1/2" d.	64 lbs.
Model AC10SCB	Simulcast	16	24	11" h. x 45-3/8" w. x 20 1/2" d.	64 lbs.

## 12-CHANNEL AUDIO CONSOLES (Rotary Faders)

Model AC12MB	Monaural	24	24	11" h. x 51-3/8" w. x 20 1/2" d.	61 lbs.
Model AC12DB	Dual Mono	24	24	11" h. x 51-3/8" w. x 20 1/2" d.	66 lbs.
Model AC12SB	Stereo	24	24	11" h. x 51-3/8" w. x 20 1/2" d.	71 lbs.
Model AC12DSB	Dual Stereo	24	24	11" h. x 51-3/8" w. x 20 1/2" d.	71 lbs.
Model AC12SCB	Simulcast	24	24	11" h. x 51-3/8" w. x 20 1/2" d.	71 lbs.

All stereo, dual stereo and simulcast models feature full stereo preamplifiers for all microphone and high level inputs.

## GAIN

Microphone input to program output 104 ±2dB

## OUTPUT LEVELS

Program output after 6dB isolation pad Test level +18 dBm  
Clipping level +22 dBm  
"0" VU output + 8dBm

Monitor output into 4 or 8 ohm load 20 watts

Audition bus boost amplifier output (monaural and stereo consoles only) Nominal .31 Vrms  
Maximum 6.0 Vrms

Headphone amplifier output 6.0 Vrms/600 ohms

## INPUT LEVELS

Microphone lines -50 dbm nominal.  
-26 dbm max.

High level lines Nominal -10 dBm

Change of input pad allows range of normal input from -30 to +24 dBm

Maximum direct inputs 100 mVrms

Monitor auxiliary lines Nominal -10 dBm (balanced source)

Phone Auxiliary Line Nominal -30 dBm (balanced source)



**AMPRO AC-10—Ten-channel audio console**



**AMPRO AC-12—Twelve-channel audio console**

**IMPEDANCES**

Microphone inputs	Source 150 ohms Minimum input 2000 ohms
High level inputs	Source 600 ohms
Direct transformer input	Minimum input 10,000 ohms
Through 20 db pad as shipped	Input-terminating 600 ohms Input-bridging 5000 ohms
Auxiliary inputs	Source balanced 600 ohms Input-unbalanced 10,000 ohms

**FREQUENCY RESPONSE**

Program channels	20-20,000 hz $\pm 1.5$ dB 50-15,000 hz $\pm .5$ dB
Monitor channel	20-20,000 hz $\pm 2.0$ dB 50-15,000 hz $\pm 1.0$ dB

**DISTORTION**

Program channels: +18 dBm out, -50dBm input	20-20,000 hz, maximum .5%
Monitor channels @ 15 watts output to 4-ohm load	20-20,000 hz, maximum .5%

**SIGNAL-TO-NOISE RATIO**

Program channels: +18dBm out, -50dBm available power input	Minimum 74 dB 20-20,000 hz measurement bandwidth
Monitor channels: 15 watts out into 4 ohms, -50 dBm available power input	Minimum 74 dB 20-20,000 hz measurement bandwidth

**CROSSTALK**

Into program channel referenced to +18dBm output when driving audition plus monitor at 15 watts output into 4 ohm load	Minimum 68 dB
Into audition plus monitor referenced to 15 watts output when driving program channel to +18dBm output	Minimum 68 dB

**POWER REQUIREMENTS**

117/234 VAC (Strappable) 50/60hz	Maximum 110 watts
----------------------------------	-------------------

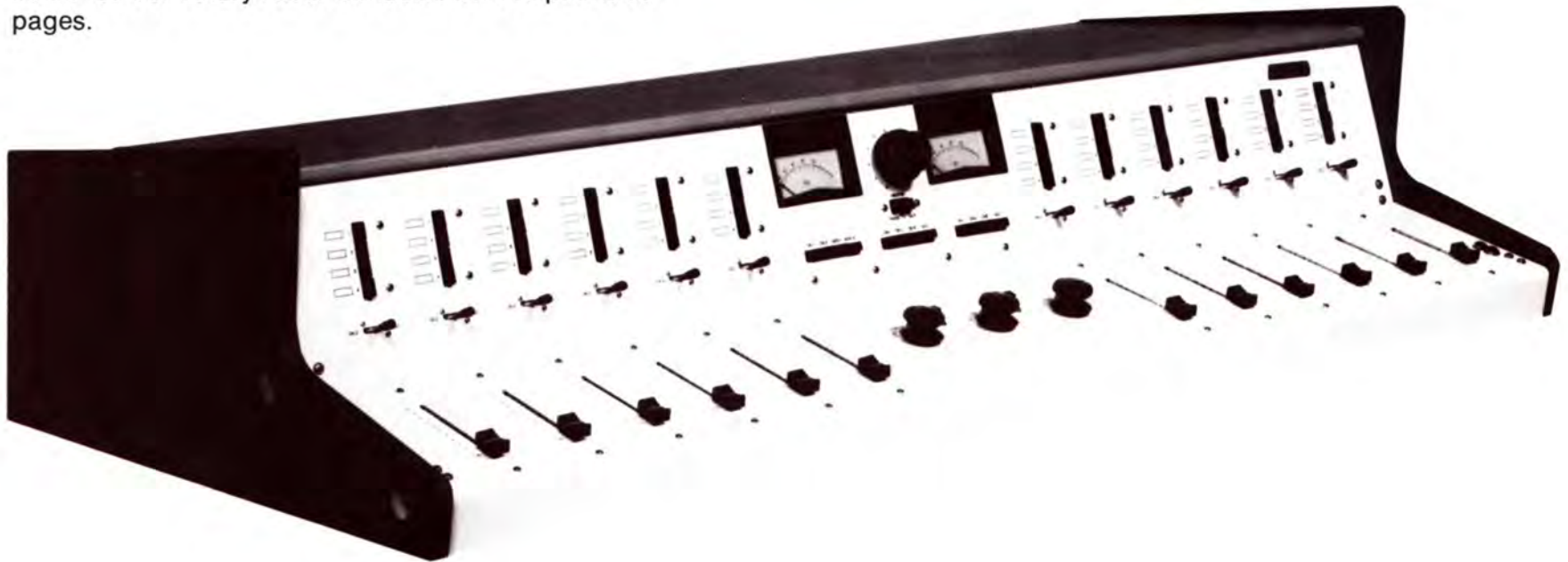
**ENCLOSURE**

Cabinet: Beige Armohide paint with oil finish walnut end panels  
Panels: Cream baked enamel with etched and filled black markings. Black adhesive foil markers supplied for input selector switch designations.

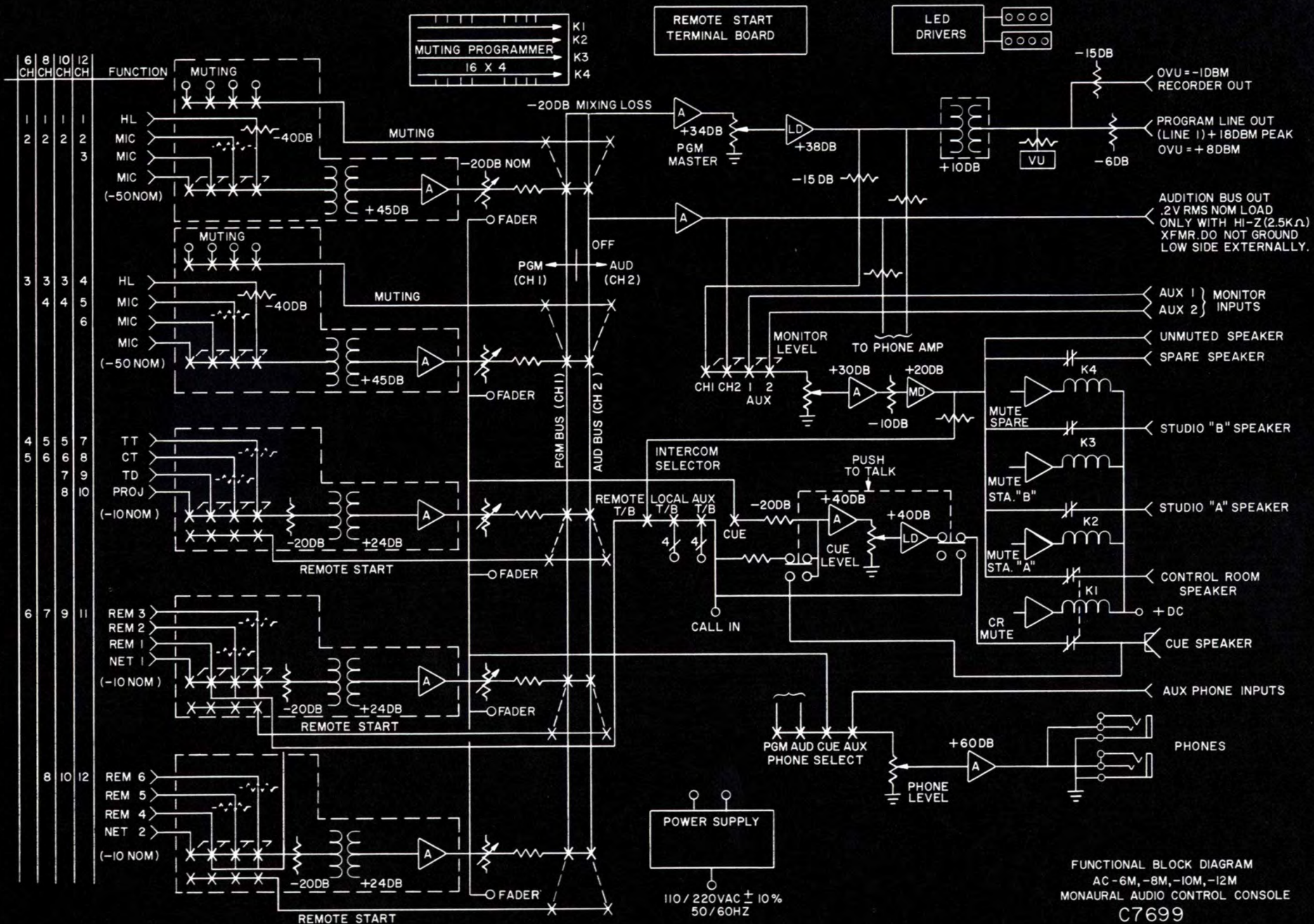
# AMPRO LINEAR CONSOLES

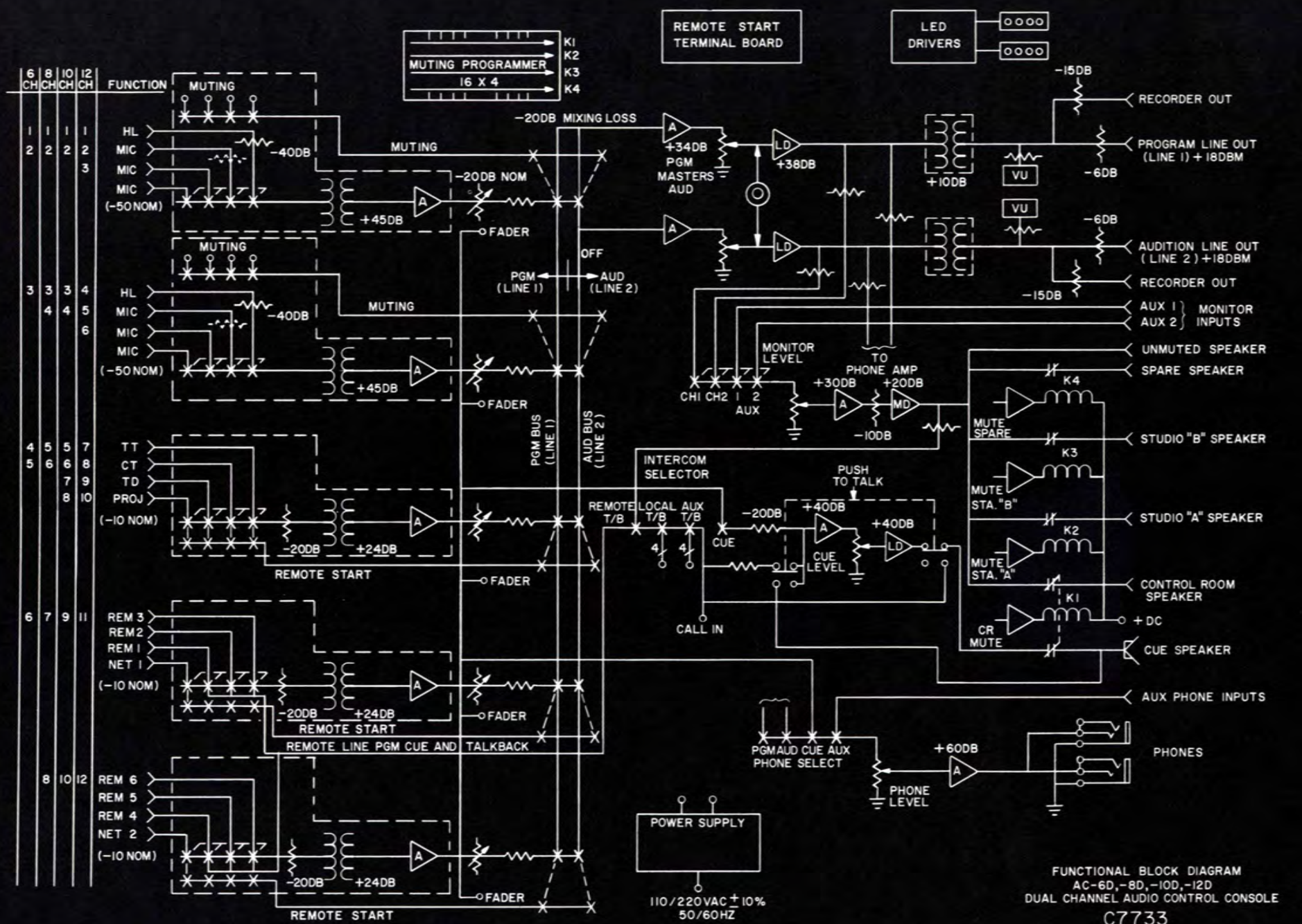
The 8, 10 and 12 channel Ampro LC Series of linear fader consoles are a natural selection for discriminating professionals preferring linear fader operation. Incorporating all the tried and proven features of the Ampro series of rotary fader models, the new LC Series of linear fader boards adds the advantages of smooth linear input level control in an attractive, dual-slope panel configuration. They fulfill the professional performance and appearance requirements of medium to large-scale production, radio and television installations.

The premium quality linear attenuators each have a four-inch travel, with cue. All other features, electrical/electronic specifications are the same as those listed for our rotary fader consoles on the previous pages.

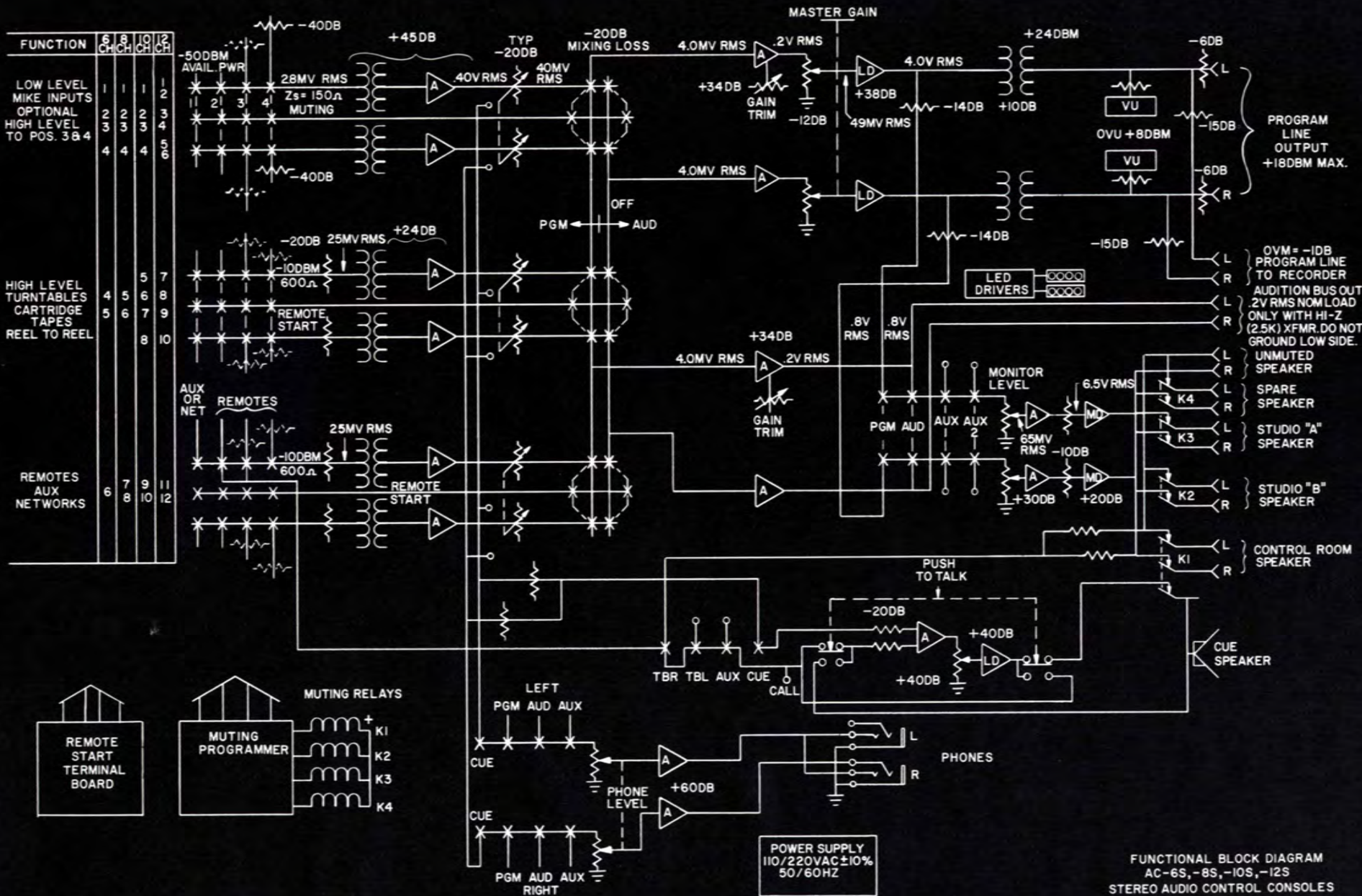






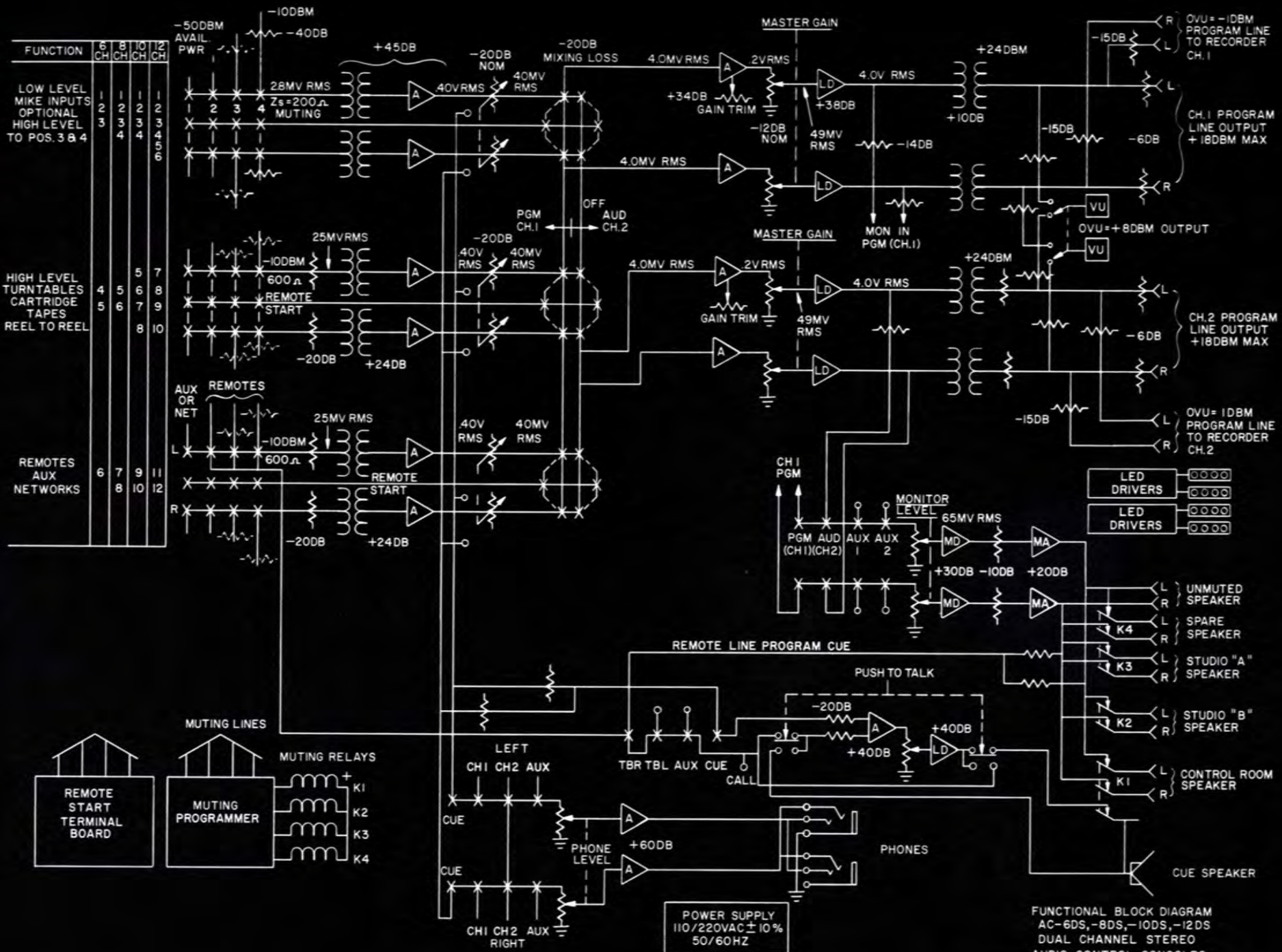


FUNCTIONAL BLOCK DIAGRAM  
 AC-6D, -8D, -10D, -12D  
 DUAL CHANNEL AUDIO CONTROL CONSOLE  
 C7733

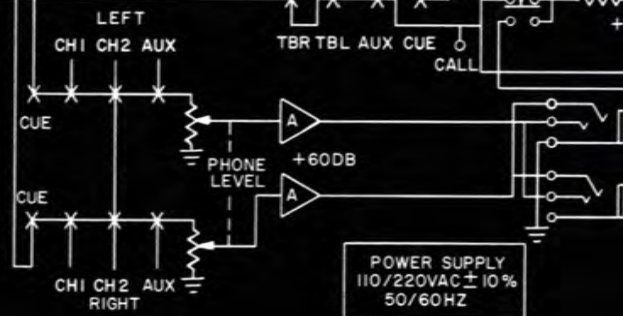
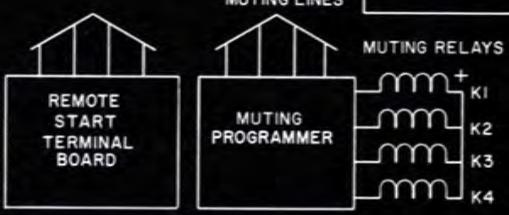


FUNCTIONAL BLOCK DIAGRAM  
AC-6S, -8S, -10S, -12S  
STEREO AUDIO CONTROL CONSOLES

C7734

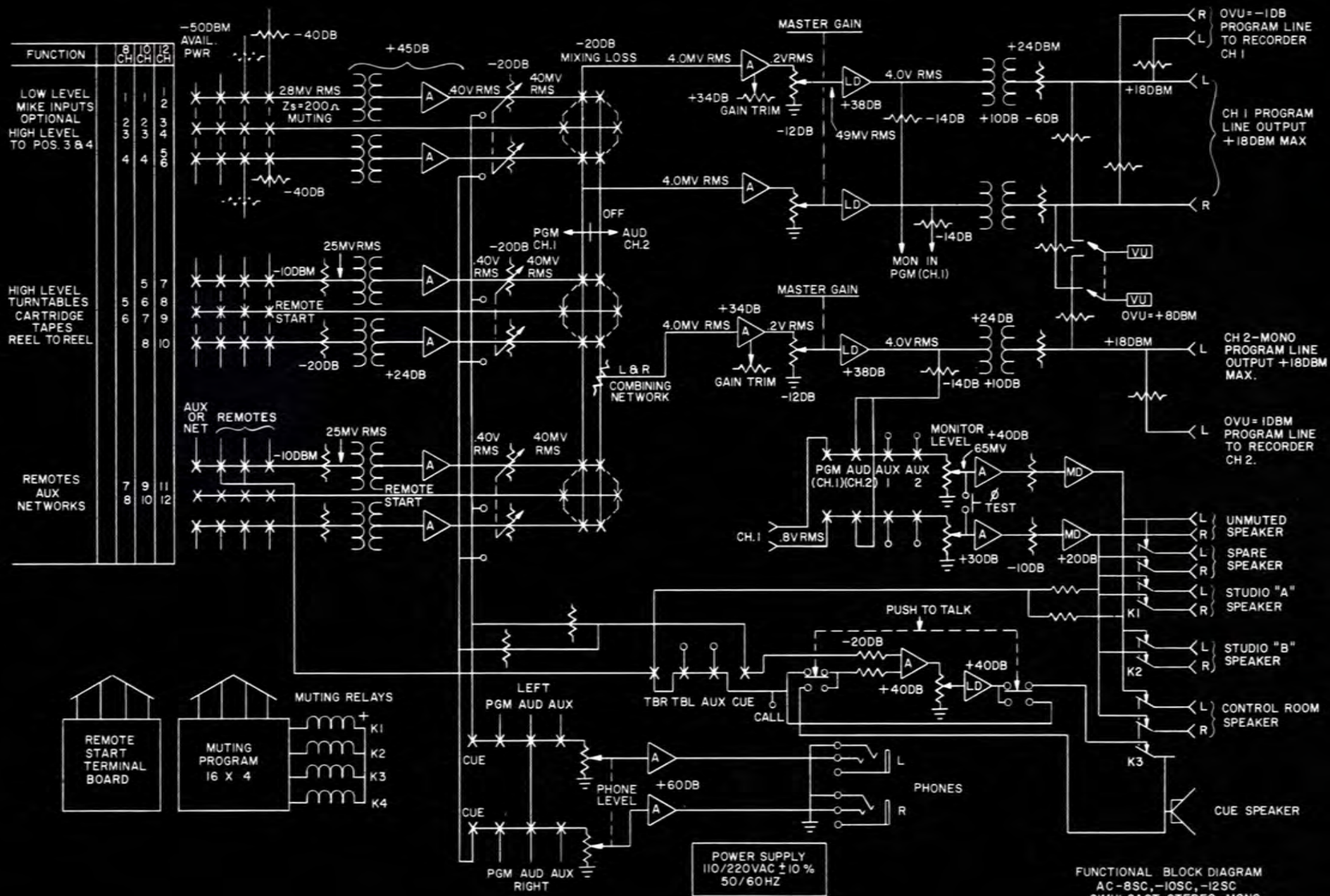


FUNCTION	6 CH	8 CH	10 CH	12 CH
LOW LEVEL MIKE INPUTS	1	1	1	1
OPTIONAL HIGH LEVEL TO POS. 3 & 4	2	2	2	2
	3	3	3	3
	4	4	4	4
				5
				6
HIGH LEVEL TURNTABLES CARTRIDGE TAPES REEL TO REEL			5	7
	4	5	6	8
	5	6	7	9
			8	10
REMOTES AUX NETWORKS	6	7	9	11
		8	10	12



POWER SUPPLY  
110/220VAC ± 10%  
50/60HZ

FUNCTIONAL BLOCK DIAGRAM  
AC-6DS, -8DS, -10DS, -12DS  
DUAL CHANNEL STEREO  
AUDIO CONTROL CONSOLES  
C7891



FUNCTIONAL BLOCK DIAGRAM  
 AC-8SC, -10SC, -12SC  
 SIMULCAST STEREO-MONO  
 AUDIO CONTROL CONSOLES  
 C7846

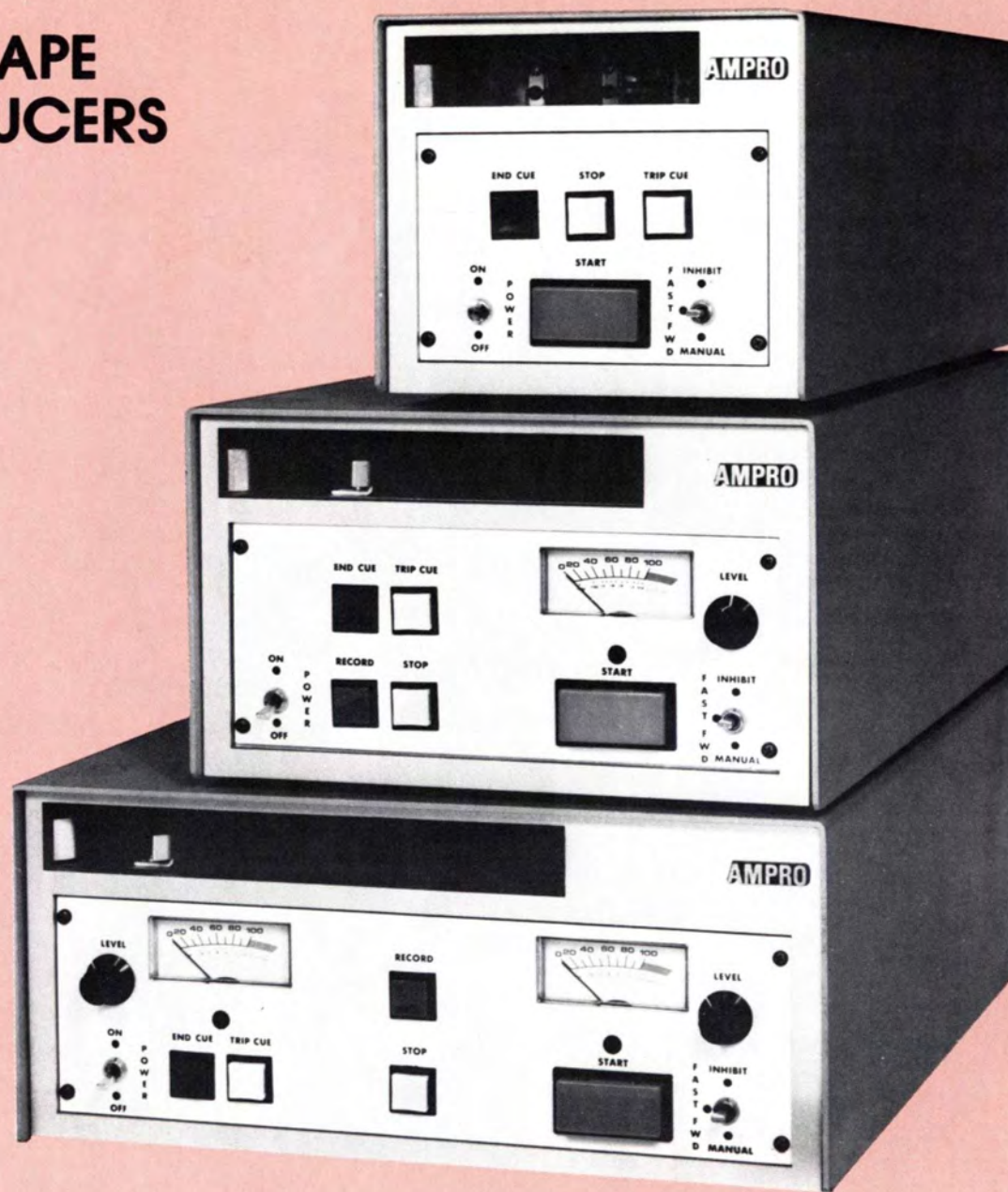
# AMPRO CARTRIDGE TAPE RECORDERS/REPRODUCERS

Ampro cartridge tape broadcast recorders/reproducers are designed and built to be the equivalent of the finest studio reel-to-reel machines. Their rugged mechanical design, necessary for long, trouble-free life, with creative utilization of the latest linear and digital integrated circuit technology; gives Ampro cartridge tape equipment superior system reliability, reduced adjustment requirements, and a significant reduction in size. There are 34 different models available, in various mono and stereo configurations — all in full compliance with the latest NAB requirements.

Ampro cartridge tape recorders/reproducers have compact packaging that allows convenient placement in studio and control rooms. Their low, 5¼" profile, in rack and desk enclosures, provides ready stackability for optimum space utilization in crowded operation centers.

Conveniences such as front-insertion rack enclosures, flip-top desk cabinets, modular electronic assemblies and plug-in rear panel audio and remote connectors all provide ready access for routine cleaning and maintenance. For ease of servicing, all Ampro equipment is operational even with all housing and external connectors removed.

All models include 1 kHz stop cue and audio switcher as standard features. Operation is reliable and noise-free, with a human-engineered panel design, quiet operating controls, and non-slip shock-absorber mountings. Conservatively designed circuits, state-of-the-art components, rugged construction and painstaking testing assure long-term circuit reliability. Electronic assemblies are constructed on plug-in, military-grade, glass epoxy boards with heavy gold plating on connector areas.



If You Didn't Get This From My Site,  
Then It Was Stolen From...

[www.SteamPoweredRadio.Com](http://www.SteamPoweredRadio.Com)

## ◀ AMPRO CT2500

## ◀ AMPRO CT3500

## ◀ AMPRO CT4500

### CONTROL SYSTEM

Buffered TTL logic controlled.

All functions remotable by momentary contact closures (TTL compatible).

Fast solenoid switching stops tape in 40 ms.

Built-in audio interlock system allows several units to drive common audio bus without noise build-up. Last unit started drives lines.

Automatic fast-forward switching with audio muting.

### CUE SYSTEM

Digital generation of cue tones guarantees stable cue frequency and amplitude.

Wideband digital counting cue detectors are immune to noise, crosstalk, frequency and level variations. No adjustments required.

Accepts 3.3 kHz logging tones along with fast-forward.

Electronic contact closure outputs switch 40 volts at 1 amp — interfaces with relay or digital logic systems.

### PLAYBACK SYSTEM

Lowest-noise preamplifier with well-shielded heads and a computer-designed, low-hum-leakage power transformer give playback system noise typically 68 db below 3% tape saturation level (tape still).

Series/Shunt FET audio switcher.

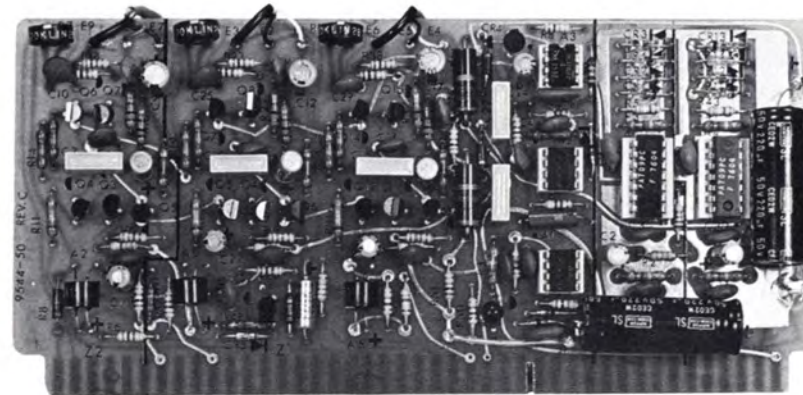
High output line amplifier (+22 dBm clipping level).

### RECORD SYSTEM

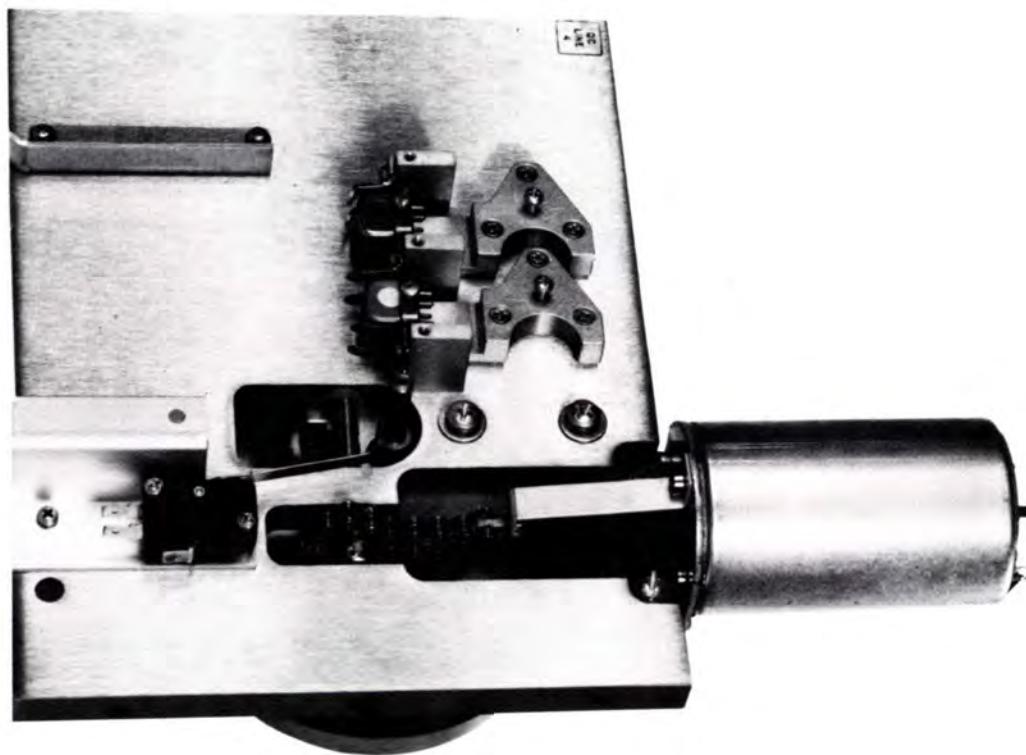
Wide input range, balanced differential input record amplifier blocks hum and RF while accepting inputs from -20 to +20 dBm.

100 kHz, constant current bias oscillator maintains lowest recorded noise by automatically compensating for head saturation on bias peaks. AGC-controlled master oscillator avoids use of bulky tuned inductors and transformers.

VU meters automatically switched to record amplifier when unit is placed into Record mode. Switch-selected flat or equalized record metering or continuous playback amplifier metering.

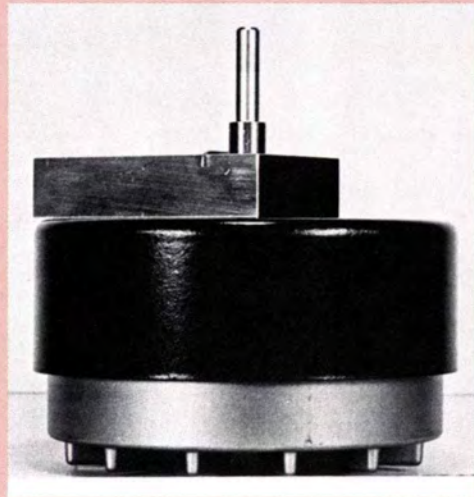


**TAPE DRIVE SYSTEM** includes self-aligning, ball-bearing, urethane pinch roller driven by an oversized, precision, air-damped solenoid through a rugged chain linkage. Provides noise-free pressure roller engagement without complications of mechanical preloading, cocking or release mechanisms. Rugged lock-down head mounts maintain precise alignment. Transport mechanism has a rugged, massive, die cast deck plate which is tempered and ground for precise flatness.





Coollest-running (17w), four-inch, inverted rotor, direct-drive motor provides high torque with long, noise-free life.



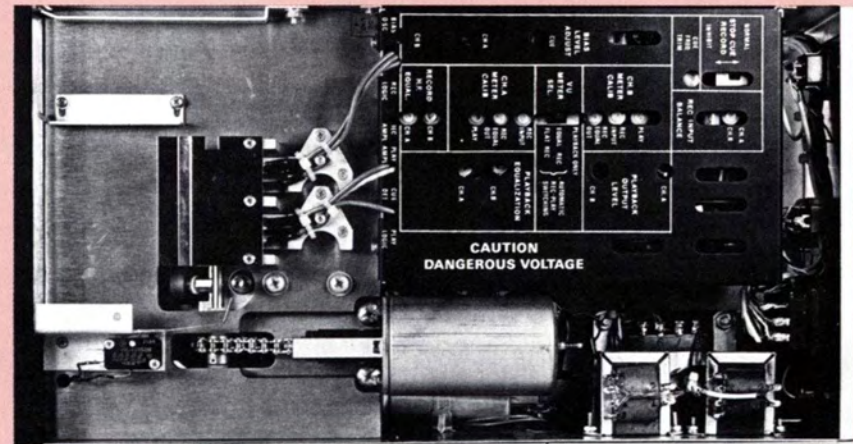
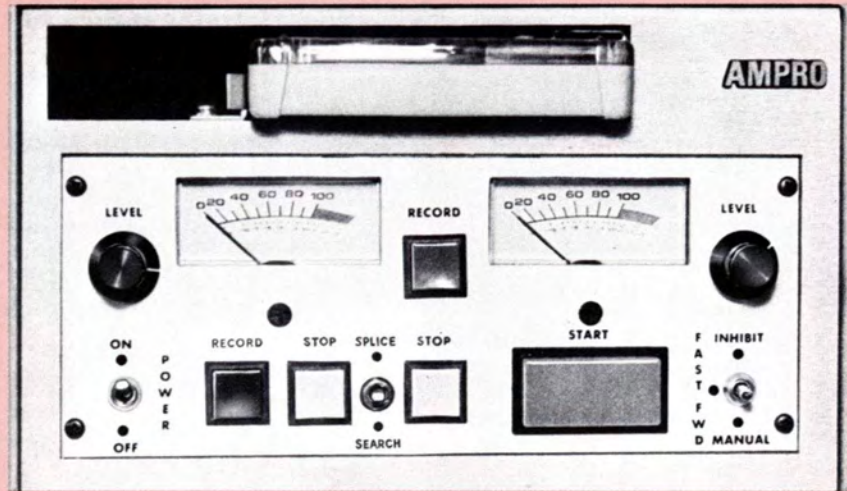
Ampro ESF-2 electronic splice finder is available as an installed option on Models CT3500 and CT4500 recorder/reproducers. Positions splice just past playback head where it is least likely to be heard after recording.

Human engineered panel design with noise-free operation, rugged and quiet operating pushbutton controls and switches.

Switch selectable equalized flat or record VU metering and automatic FET Record to Playback meter switching.

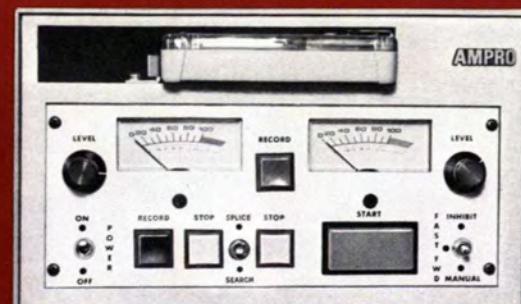
Easy, well-marked top access for all adjustments.

Protected cartridge sensing switch and precise wrap-over cartridge guides prevent head and tape guide damage due to poorly aimed or straight-armed cartridges.





AMPRO SERIES CT 2500 is available as a reproducer for NAB Type A and AA cartridges — monaural and stereo.



AMPRO SERIES CT 3500 is available as a reproducer or recorder/reproducer for NAB Type A, AA, B and BB cartridges — monaural and stereo.

## SPECIFICATIONS

<b>POWER</b>	117/234 VAC, 60HZ, 80 VA. maximum, 50HZ Optional.
<b>TAPE SPEED</b>	7½ inches per Second Direct Drive Hysteresis Synchronous Motor with Electrolized Shaft and class seven instrument type Permanently Lubricated ball bearings.
<b>TIMING ACCURACY</b>	.1% or better
<b>AUDIO OUTPUT</b>	+20dBm before clipping. +8dbm nominal @ 0VU (adjustable from 0 to + 10dbm) 600/150 ohm balanced output.
<b>DISTORTION</b>	Reproduce Amplifer, .3% maximum 20-20000HZ @ + 18dbm output (loop injection measurement). Record to Reproduce, (tape limited) 3% maximum at 8 db above NAB standard Reference level, 400HZ, 3M156 Tape.
<b>HUM &amp; NOISE</b>	58 db or better below 400HZ, 3% THD, 20-20000HZ Measurement band width.
<b>CROSS TALK</b>	Better than 50 db @ 1 Khz (head limited).
<b>FREQUENCY RESPONSE</b>	± 2 db 50-15000Hz + 2, - 4 db 30-18000Hz
<b>EQUALIZATION</b>	NAB-adjustable to compensate for head wear.
<b>CUE SIGNALS</b>	NAB Primary Cue 1 Khz Std. 150Hz and 8 Khz cue optional. Constant pulse width electronic
<b>WOW &amp; FLUTTER</b>	.15% Peak Weighted



AMPRO SERIES CT 4500 is available as a reproducer or recorder/reproducer for NAB Type A, AA, B, BB, C and CC cartridges — monaural and stereo.



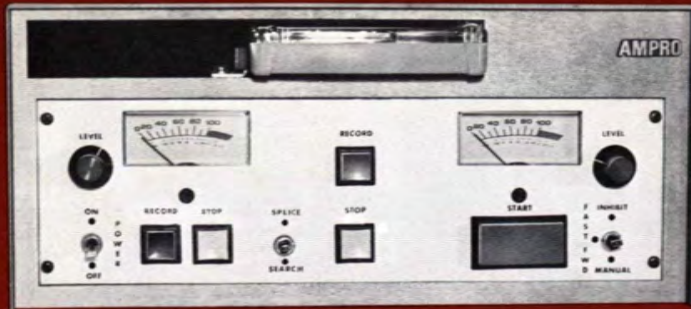
AMPRO Erase/Delay Recorder in Type B and C monaural configurations, is available as an adjunct to Series 3500 and 4500 monaural cartridge recorders.

ground closure output. Data Logging output provided.

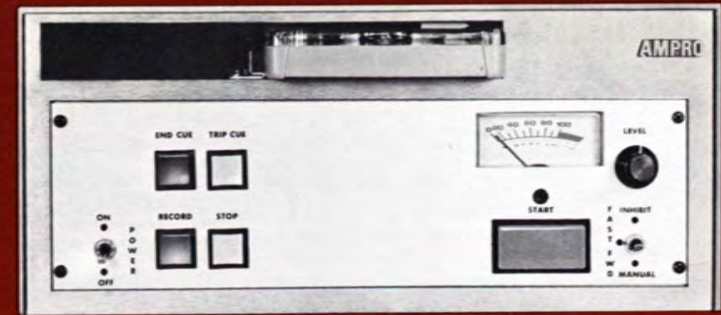
- PLAYBACK TIME:** 2500 Series; NAB type A (2 seconds to 10 minutes).  
 3500 Series; NAB type A & B (2 seconds to 16 minutes).  
 4500 Series; NAB type A, B & C (2 seconds to 31 minutes).
- START TIME** 100m Sec. Maximum
- STOP TIME** 45m Sec. Maximum from fast forward or normal speed.
- REMOTE CONTROLS** All controls and indicators. All switching functions are buffered and protected momentary contact ground closures (TTL Compatible).
- OPTIONAL FEATURES** Fast Forward: 22.5 IPS (1171 mm/s) automatic at end cue, with front panel Manual and Inhibit control.
- AUDIO SWITCHER** FET Switcher gated on at start, off at end cue or stop command, Single Line audio interlock bus allows combining multiple units into a common audio bus with no increase in noise.
- MOUNTING** Flip top, non skid stackable desk enclosure standard. Optional Rack Mount accommodates 3 Model 2500, 2 models 3500 or 1 model 4500 plus 1 model 2500.
- DIMENSIONS** Model 2500: 5¼" H. 5-7/8" W. 17" D., 22 lbs.  
 Model 3500: 5¼" H. 8-3/4" W. 17" D., 25 lbs.  
 Model 4500: 5¼" H. 11-3/4" W. 17" D., 27 lbs.

### 3500 & 4500 SERIES (RECORDER-REPRODUCERS ONLY)

- AUDIO INPUTS** Balanced, bridging differential high level input Record Amplifier standard. High Level input 600 ohm Line, -20 to +20 dbm, 18000 ohm bridging impedance.
- METERING** Taut band movement with VU "A" Scale. Internal switch allows metering of flat or equalized record audio signal or continuous playback monitoring. Meters switched automatically to Reproduce Amplifier output when not recording.
- HEAD CONFIGURATION** NAB standard, two tracks for Mono, 3 tracks for Stereo. Professional grade laminated core, fully shielded metal face heads. Separate record & reproduce heads permit monitoring while recording.
- CUE SIGNALS** NAB standard 1 Khz primary cue tone automatically recorded at start of message. 150hz & 8 Khz cues optional, may be recorded during record or playback process.
- BIAS OSCILLATOR** 100 Khz, transformerless gain controlled RC oscillator, constant current head drive, typical current wave form distortion less than .25% for lowest noise.
- ERASE/BIAS OSC. (DELAY RECORDERS ONLY)** 70 kHz, 60db minimum erasure.



AMPRO SERIES CT 4500 is available as a reproducer or recorder/reproducer for NAB Type A, AA, B, BB, C and CC cartridges — monaural and stereo.



AMPRO Erase/Delay Recorder in Type B and C monaural configurations, is available as an adjunct to Series 3500 and 4500 monaural cartridge recorders.

	ground closure output. Data Logging output provided.
<b>PLAYBACK TIME:</b>	2500 Series: NAB type A (2 seconds to 10 minutes). 3500 Series; NAB type A & B (2 seconds to 16 minutes). 4500 Series; NAB type A, B & C (2 seconds to 31 minutes).
<b>START TIME</b>	100m Sec. Maximum
<b>STOP TIME</b>	45m Sec. Maximum from fast forward or normal speed.
<b>REMOTE CONTROLS</b>	All controls and indicators. All switching functions are buffered and protected momentary contact ground closures (TTL Compatible).
<b>OPTIONAL FEATURES</b>	Fast Forward: 22.5 IPS (1171 mm/s) automatic at end cue, with front panel Manual and Inhibit control.
<b>AUDIO SWITCHER</b>	FET Switcher gated on at start, off at end cue or stop command, Single Line audio interlock bus allows combining multiple units into a common audio bus with no increase in noise.
<b>MOUNTING</b>	Flip top, non skid stackable desk enclosure standard. Optional Rack Mount accommodates 3 Model 2500, 2 models 3500 or 1 model 4500 plus 1 model 2500.
<b>DIMENSIONS</b>	Model 2500: 5¼" H. 5-7/8" W. 17" D., 22 lbs. Model 3500: 5¼" H. 8-3/4" W. 17" D., 25 lbs.

### 3500 & 4500 SERIES (RECORDER-REPRODUCERS ONLY)

<b>AUDIO INPUTS</b>	Balanced, bridging differential high level input Record Amplifier standard. High Level input 600 ohm Line, -20 to +20 dbm, 18000 ohm bridging impedance.
<b>METERING</b>	Taut band movement with VU "A" Scale. Internal switch allows metering of flat or equalized record audio signal or continuous playback monitoring. Meters switched automatically to Reproduce Amplifier output when not recording.
<b>HEAD CONFIGURATION</b>	NAB standard, two tracks for Mono, 3 tracks for Stereo. Professional grade laminated core, fully shielded metal face heads. Separate record & reproduce heads permit monitoring while recording.
<b>CUE SIGNALS</b>	NAB standard 1 Khz primary cue tone automatically recorded at start of message. 150hz & 8 Khz cues optional, may be recorded during record or playback process.
<b>BIAS OSCILLATOR</b>	100 Khz, transformerless gain controlled RC oscillator, constant current head drive, typical current wave form distortion less than .25% for lowest noise.
<b>ERASE/BIAS OSC. (DELAY RECORDERS)</b>	70 kHz, 60db minimum erasure.

# AMPRO DISC REPRODUCERS, TONEARMS, PREAMPS, REMOTE CONTROLS AND PANELS

**Ampro presents the ultimate turntable  
for studio use — the SP-10 MK II by  
Technics.**



We scoured the world for the single turntable we'd be proud to include as part of our professional studio line. We found it in the SP-10 MK II by Technics. To our minds, after extensive, critical testing, there is none better, none more reliable, none easier to operate and work with. The SP-10 MK II provides all three speeds with instant starting and stopping. Has a quartz phase lock controlled DC servo motor for direct drive. Smooth and silent, it reaches its exact playing speed at 33-1/3 rpm in only 0.25 seconds (1/12th revolution). Has lowest wow and flutter (0.025% WRMS) and rumble (-70 dB DIN B). Includes remote-control start switch. Controls respond on command. Solid, heavy, rugged construction for years and years of dependable, trouble-free performance.

**Ampro "Audition" Tonearm  
— Model 58A**



Specially made for Ampro, the 12-inch anti-skating, dynamically balanced "Audition" tonearm is a perfect match to the SP-10 MK II turntable. Moves freely and noiselessly on a unique gimbal suspension system to reduce unwanted friction and overcome unexpected jolts to the arm. Accepts all modern cartridges. Resonance-free with unusually low tracking error essential for today's low-tracking cartridges. Extremely rugged with all of the operating features you've always wanted for easy handling and totally professional performance.

## A new standard in turntable preamplifiers — the Ampro TTP-S



The turntable preamp with everything. Ampro Model TTP-S features a turntable start relay with electronic driver for quiet, remote control of both pulse-start and AC-switched turntables . . . balanced high-level transformer output with calibrated output level controls . . . mono/stereo switch . . . right-channel phase reversal switch . . . high and mid-frequency boost and high and mid-frequency cut switches . . . and headphone monitor jack. Superb specifications:

**OUTPUT:** Adjustable from -30 dBm to +10 dBm with nominal 5 MV RMS input, +20 dBm clipping level.

**OUTPUT IMPEDANCE:** 150/600 ohms balanced, transformer coupled.

**INPUT:** Nominal 5 MV RMS, 400 MVP-P input overload.

**INPUT IMPEDANCE:** 47,000 ohms unbalanced.

**FREQUENCY RESPONSE:** RIAA  $\pm 1$ db with switchable boost and cut filters. High boost +3db at 18 kHz.

Mid-range boost +3 db at 6 kHz. High cut -6 db at 15 kHz. Low cut -6 db at 25 hz.

**DISTORTION:** 0.5% maximum at +18 dBm output 20-20,000 hz.

**SIGNAL-TO-NOISE RATIO:** 65 db, REF 1 kHz at 5 MV input, +8 dBm output, 20-20,000 hz bandwidth.

**TURNTABLE CONTROL RELAY:** 5A rated SPDT contacts. Relays will generate either a continuous closure for direct AC motor switching or a 1/2-second pulse suitable for starting direct-drive brushless DC turntable motors from a maintained input ground closure such as Ampro console remote start switching contacts.

**TERMINATIONS:**

**AUDIO INPUTS:** RCA-type phone jacks

**AUDIO OUTPUTS:** 6-pin socket (mating connector supplied)

**RELAY CONTROL INPUTS AND OUTPUTS:** Screw terminal

**HEADPHONE MONITOR:** Phone jack wired T/R/S

**DIMENSIONS:** 1.75" h. x 8.5" w. x 13" d.

**MOUNTING:** May be rack-mounted as single unit, or mounted to side or bottom of turntable cabinet.

## Ampro Disc Reproducing System



Delivered completely assembled and wired.

Consists of the Technics

SP-10 MK II turntable, Model 58A

"Audition" tonearm with Stanton cartridge, Ampro

TTP-S stereo turntable preamplifier — all in our solidly

built, heavy duty studio cabinet. Choice of sit-down 30-inch or

36-inch stand-up heights. See furniture section for cabinet details.

# AMPRO OPERATING AIDS



## PLAYBACK REMOTE CONTROL PANEL — Model 9519-501

Connects directly to provide a convenient means of operating one to four cartridge-tape playback units. Four momentary "start" push-buttons are mounted on matching cream-colored panel for control of up to four playback units.



## RECORD/PLAYBACK REMOTE CONTROL PANEL — Model 9520-501

Provides remote control of a single record/playback cartridge tape system. Parallel operational functions are controlled with five push-button switches labeled START, STOP, END, TRIP and RECORD.



## "SMART SEQUENCER" Model SRC-1

A "hands-on" mini automation system to automate your station breaks, news reports, public service announcements. Remote controls up to 6 Ampro cartridge reproducers. 6 individual remote-start pushbutton switches on the keyboard allow full manual control with readouts of ON AIR, NEXT TO PLAY and READY status for each reproducer. Automatic sequential or single step operation plays spot clusters up to 6 steps (internally programmable for shorter sequences such as 3 and 3, 4 and 2, etc.). SEQUENTIAL mode plays a full cluster, each cartridge starting the next. Step operation plays spots one at a time and remembers and displays the NEXT cart to play. Operating the ADVANCE button automatically plays the NEXT programmed cartridge and eliminates any possibility of accidentally skipping or repeating a spot. Fail-safe operation to prevent dead air is provided by automatically jumping over unloaded or cueing cartridges.

# STUDIO ACCESSORIES

Ampro carries a complete line of accessories for the studio, and can provide all of your needs including microphones of all types, microphone table stands and extension arms, bulk tape erasers and head demagnetizers. We also feature a full line of maintenance and test equipment, including:

## **CARTRIDGE MACHINE ALIGNMENT TOOL & GAUGE KIT — Model 9217-501**

Includes capstan gauge, guide height gauge, allen wrenches, adjustment screw driver and lamp puller. Permits alignment and adjustment of tape guides and heads, and parallelism adjustment of capstan shaft and pressure roller for minimum wow and flutter.

## **AZIMUTH ALIGNMENT & FREQUENCY RESPONSE TAPE — Model 9240-1**

Checks head azimuth alignment, phasing, level and frequency response. Test tape is loaded in 350 Series cartridge. Playing time: approximately 3 minutes.

## **HEAD CLEANING CARTRIDGE — Model 9241-1**

Provides 20 seconds of automatic, programmed head cleaning and conditioning. At end of cycle, a prerecorded 1000 Hz cue tone stops the tape.

## **TORQUE-TEST CARTRIDGE — Model 9242-1**

Determines tape-pulling torque of cartridge tape machines. Fits into machine in usual manner, and as the capstan and pinch roller pull tape, the force is displayed on a calibrated scale in the cartridge. If pulling force is more or less than the 1.5 lb. NAB specification, pinch roller pressure should be readjusted.

## **SPEED-TEST CARTRIDGE — Model 9243-1**

Contains 50 Hz and 60 Hz strobe discs that indicate speed accuracy of cartridge tape machines when viewed under the supplied strobe lamp (115V operation only).

## **SPARE SEMICONDUCTOR KITS**

Provides a minimum of one spare semiconductor for each type used in the equipment. Reproducer Kit — Model 9283-501. Recorder/Reproducer Kit — Model 9282-501. Console Kit — Model 7888-501.



## **SIMPLE SEQUENCER Model SS-1**

A simple, pushbutton-operated sequencer allows up to 8 cartridge reproducers to be selected for a continuous playback sequence.



## **TIME INSERT CLOCK Model TIC-1**

Used in conjunction with Simple Sequencer, will hold a cartridge reproducer out of sequence until armed by an internal digital clock. Upon arming at 15, 30 or 60 minute intervals, the reproducer will be inserted into the playback sequence, will play once in its normal order, and then be removed from the playback sequence until again armed by the internal clock.

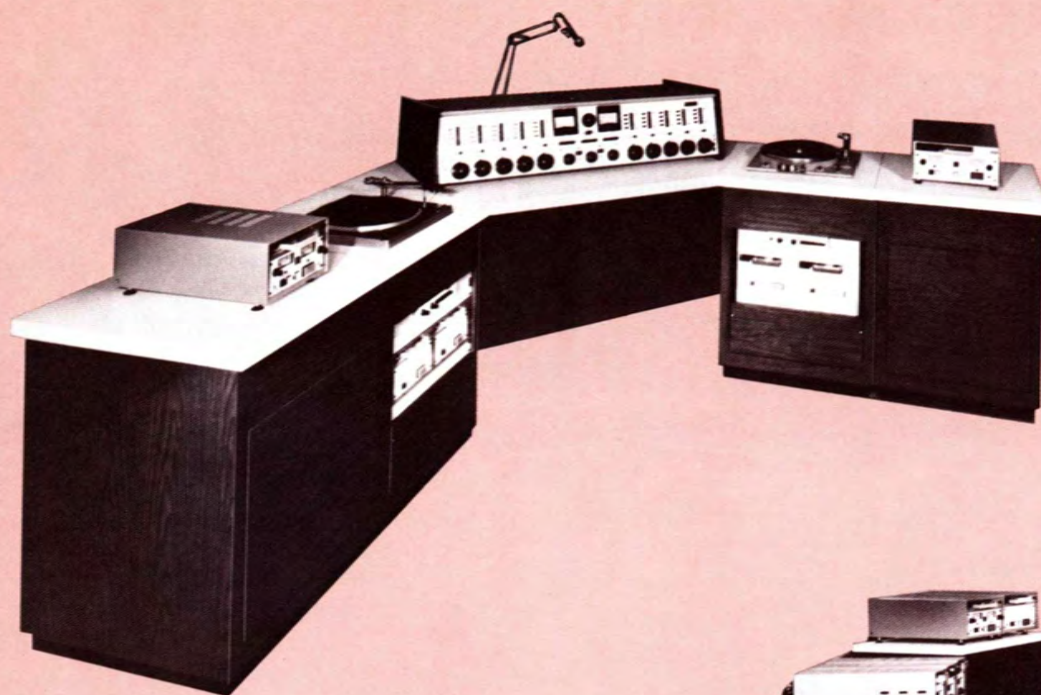


# AMPRO MODULAR STUDIO FURNITURE

*Complete studio packages,  
engineered to your requirements  
— plus modern modules to augment  
your present studio system*

Clean, modular design and custom construction of Ampro furniture assure meeting your stringent requirements for studio use. Available in both 30-inch and 36-inch heights for sit-down or stand-up operation, heavy duty Ampro furniture is solidly built of 3/4-inch and 1½-inch materials, laminated with Formica™ for functional practicality and easy maintenance. They are readily combined or arranged into custom systems with ease. The attractively finished cabinets and tables have antique white tops and walnut-grained sides, front and rear. Other color schemes are available on special order. Whatever your desire, you can count on Ampro for turnkey studio packages or individual modules to meet your needs.



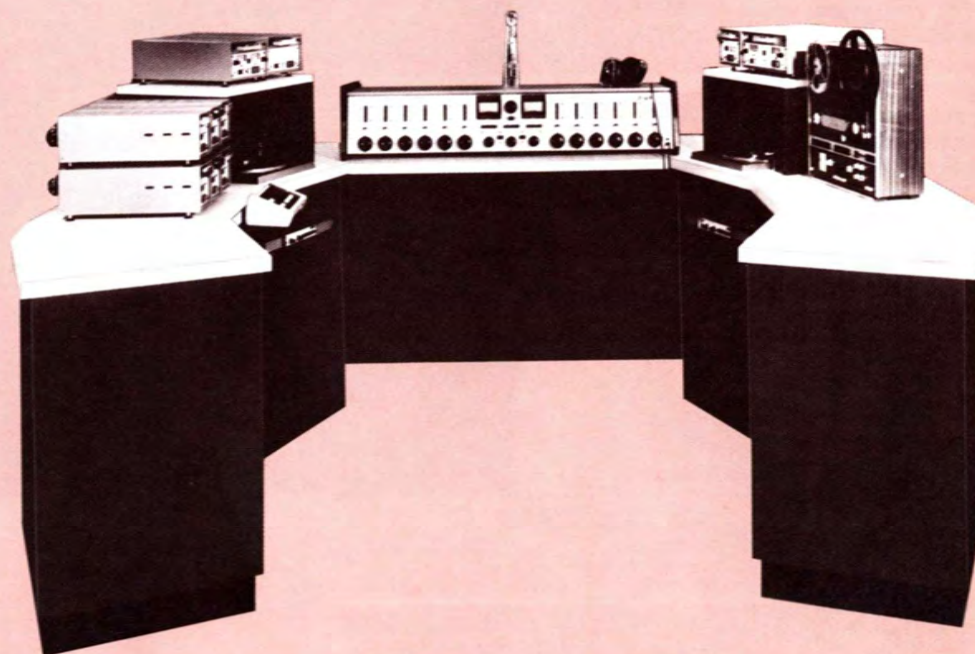


## **TURNTABLE AND CART MACHINE CABINETS**

Ampro single-bay turntable and equipment cabinets include rack-mounting rails to accommodate 17½" of standard EIA panel-mounted equipment. Tops are easily removed to allow instant interchange of turntables or flat table tops. Two or more cabinets may be interlocked to form a flush, multi-cabinet. Front and rear closure panels are provided.

## **CONSOLE TABLES**

Sleek, solidly-built Ampro console tables are studio mates for Ampro turntable and cart machine cabinets. Placed together, they form a flush-mounted facade without the use of spacers or additional legs. Complete with rear support and interlocking brackets for flush mounting. "Pie" sections and custom-sized table tops are also available on special order.



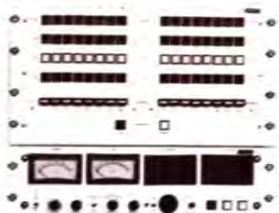
# AMPRO SPECIAL SYSTEMS, CUSTOM AUDIO SYSTEMS

## Ampro NOAA Weather/Emergency Broadcasting System

Designed and manufactured by Ampro for the National Weather Service, the system is available both in manual and remote control configurations. Typically, each weather station using this equipment broadcasts a general weather synopsis and forecast, updated several times each day, supplementary hourly updates including area temperatures, area weather, and three or four-hour forecasts, plus marine forecasts. Travelers' advisories are also broadcast.

Remote control systems are microprocessor operated and controlled via Touch-Tone® telephone inputs from a remote dial-in location.

Systems are expandable for use as message centers, diagnostic storage facilities and other applications.



**Flight Path Weather Broadcasting System**  
Designed and Built by Ampro for the FAA

# AMPRO PREVIEWS



## Ampro ROTOCART — Series CT2400 Multiple Cartridge Selector and Reproducer

Accommodates 24 NAB Type A cartridges to automate selection and playback. Tape transport, head assembly and reproduce circuitry are identical to Ampro's time-proven cartridge tape equipment. For playback, cartridges are removed entirely from drum onto stable deck platform, assuring proper phasing characteristics. Cartridge load and unload time is 0.5 seconds. Sequential access time is 1.5 seconds maximum after tape "stop", and random select access time is a maximum of 7 seconds after tape "stop". Cartridge drum is completely removable. Control panel can be used remotely up to ten feet with extension cable. Random select switch assembly, optionally available, allows interfacing to most automation systems. All controls are buffered and protected by momentary ground closures. Designed for drop-in replacement in existing systems.

*Coming Up . . .*



Additional  
Ampro equipment  
currently under development  
includes Modular Amplifiers, Audio Processing  
Equipment, and Stand-up Consoles. Watch for announcements.

Gentlemen:

Please send additional information on:

- \_\_\_\_\_ Ampro Audio Consoles with Rotary Faders
- \_\_\_\_\_ Ampro Audio Consoles with Linear Faders
- \_\_\_\_\_ Ampro Cartridge Reproducers
- \_\_\_\_\_ Ampro Cartridge Recorders/Reproducers
- \_\_\_\_\_ Ampro Disc Reproducers, Tonearms, Preamps,  
Remote Controls and Panels
- \_\_\_\_\_ Ampro Operating Aids and Studio Accessories
- \_\_\_\_\_ Ampro Modular Studio Furniture
- \_\_\_\_\_ Please have salesman call.
- \_\_\_\_\_ OTHER: \_\_\_\_\_

NAME \_\_\_\_\_

TITLE \_\_\_\_\_

STATION \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_

STATE \_\_\_\_\_ ZIP \_\_\_\_\_

TELEPHONE \_\_\_\_\_

(Area Code)

Gentlemen:

Please send additional information on:

- \_\_\_\_\_ Ampro Audio Consoles with Rotary Faders
- \_\_\_\_\_ Ampro Audio Consoles with Linear Faders
- \_\_\_\_\_ Ampro Cartridge Reproducers
- \_\_\_\_\_ Ampro Cartridge Recorders/Reproducers
- \_\_\_\_\_ Ampro Disc Reproducers, Tonearms, Preamps,  
Remote Controls and Panels
- \_\_\_\_\_ Ampro Operating Aids and Studio Accessories
- \_\_\_\_\_ Ampro Modular Studio Furniture
- \_\_\_\_\_ Please have salesman call.
- \_\_\_\_\_ OTHER: \_\_\_\_\_

NAME \_\_\_\_\_

TITLE \_\_\_\_\_

STATION \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_

STATE \_\_\_\_\_ ZIP \_\_\_\_\_

TELEPHONE \_\_\_\_\_

(Area Code)



# AMPRO BROADCASTING, INC.

AMPRO BROADCASTING, INC. • 850 PENNSYLVANIA BOULEVARD • FEASTERVILLE, PA. 19047 • TEL: (215) 322-5100

[www.SteamPoweredRadio.Com](http://www.SteamPoweredRadio.Com)