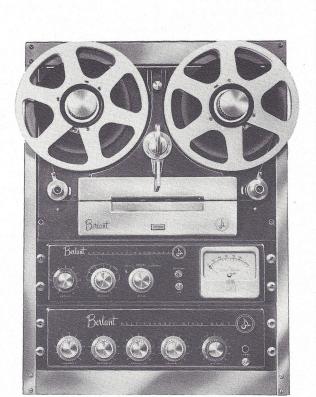
AUTHORIZED PRICE LIST
GENERAL SERVICES ADMINISTRATION
FEDERAL SUPPLY SERVICE
CLASS 54, PART III, SECTION B—
ITEMS 54-M-31751, 54-M-31790-100
CONTRACTOR BERLANT ASSOCIATES
PERIOD JULY 1, 1954 THROUGH JUNE 30, 1955
CONTRACT NO. GS-03S-13137
GSA DISTRIBUTION CODE 87











BROADCAST RECORDER

#### ANSWERS THE NEED

In a nation-wide questionnaire the chief engineers of radio stations and recording studios were asked to set the specifications for the ideal professional tape recorder.

They did ... THIS IS IT!

#### **PERFORMANCE**

Every requirement of frequency response, freedom from distortion, stability of motion, dynamic range, timing accuracy and tape handling ability is met and exceeded by this recorder at both tape speeds.

#### **DEPENDABILITY**

Designed and built for continuous operation under the most rigorous conditions, this recorder combines rugged components and advanced engineering to guarantee maximum dependability with minimum maintenance.

#### SIMPLICITY

New concepts in design, construction and operation result in a functional simplicity that is reflected in the recorder's performance, dependability and last, but not least — economy.

BERLANT ASSOCIATES
Manufacturers of



World's Foremost' High Fidelity Tape Recorder



Berlant

SPECIFICATIONS BR-1

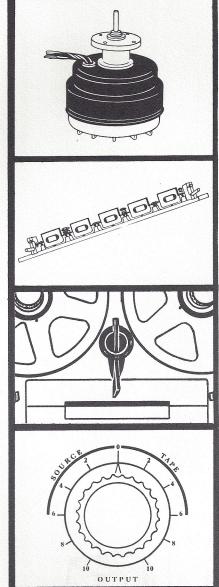
TAPE SPEEDS: Instant selection of 15"/Sec. or FREQUENCY RESPONSE:  $\pm\,2$  db from 40 to 15,000 CPS at 15"/Sec. ±2 db from 40 to 10,000 CPS at 7.5"/Sec.
SIGNAL TO NOISE RATIO: 55 db as measured by proposed NARTB standard (400 C P S at 3% T.H.D.) TOTAL HARMONIC DISTORTION: 2% at zero V.U TIMING ACCURACY: Better than 99.8% TOTAL FLUTTER AND WOW: Less than 0.1% RMS at 15"/Sec. Less than 0.2% RMS at 7.5"/Sec. REWIND AND FAST FORWARD: Less than 60 secs. for 2500 feet. FROM STOP TO 15"/SEC .: 0.1 second. HEAD MOUNTING: Interchangeable Bracket mounting up to FIVE heads. METER INDICATION: Bias current, record level, output level. MONITOR OUTPUT: From tape or input signal. INPUT IMPEDANCE: One megohm on high impedance microphone input. 50/250 ohms balanced or unbalanced with plug in transformer #T-3344. 200,000 ohms unbalanced bridging input.
INPUT SENSITIVITY: 55 db on microphone input. 0.1 volt on bridging input. OUTPUT IMPEDANCE: Cathode follower. 600 ohms balanced output with plug in transformer #T2560. OUTPUT LEVEL: 2 volts from cathode follower output. Zero DBM across 600 ohm line. FILAMENT SUPPLY: D.C. on all filaments. DIMENSIONS: Drive mechanism, 14"x 19". Mounting Depth, 6" below panel. Amplifier, 51/4"x 19". Mounting depth, 6" below panel. WEIGHT: Drive mechanism, 35 Lbs. Amplifier, 10 Lbs. TUBE LIST:

2-12AX7; 1-12AT7; 2-12AU7; 1-12BH7; 1-6X5GT

160 watts, 60 cycles, 115 volts.

POWER REQUIRED:





## PLUS

## **EXCLUSIVE FEATURES**

This radical improvement in design brings a new standard of quality to sound recording. An integral unit, consisting of an "inside out" hysteresis synchronous motor, fly-wheel and blower provides a cooler, lighter, smoother drive than has been previously possible.

#### **FIVE HEADS**

Instead of the usual three heads, the BR-1 can accommodate up to five. This permits playback of a delayed broadcast while recording an incoming program on the same tape. Single and dual track operation of one recorder is also possible.

All operations of the recorder are combined in a single, convenient error-proof lever system. Tape handling in fast forward and rewind can be at any speed from zero to full spooling. This permits rapid location of any desired section of tape.

#### A-B TEST FADER

from the incoming signal to playback from the tape eliminates all clicks and noises previously inherent in such A-B tests.

#### UNISYNC DRIVE

#### UNIFIED CONTROL

An exclusive method of fading

The Berlant "Reelok" of original MAINTENANCE

**CUEING AND EDITING** 

The cueing position of the BR-1's unified control places the tape in contact with the heads and releases the brakes so that the reels can be rotated by hand while listening to the signal. When the exact cue point is reached, the control lever is switched to editing position, opening the head cover for easy access to the tape.

#### **ERASE SAFETY**

Positive interlock of record system with the control level makes accidental erasure impossible.

#### SIGNAL LEVEL INDICATOR

An extremely accurate and stable VTVM circuit measures bias level. The 41/2" illuminated meter is a dependable guide to the operator at all times.

#### STRAIGHT LINE THREADING

Quick and simple loading is achieved by straight line threading of the tape, which, in operation, is completely entrapped within hardened ground guides. Striction effects, amplitude variations and tracking error are reduced below any former standards.

#### THREE MOTORS

Combined with the new Unisync Drive are two expertly engineered, heavy duty torque motors for proper tape motion in record, playback, fast forward and rewind positions.

#### ADJUSTABLE BIAS

A bias level adjustment with adequate reserve permits resetting bias to suit special requirements of various tape coatings for perfection in recording.

#### **AUTOMATIC CUT-OFF**

In case of tape breakage or runout, recorder is automatically turned off.

#### REEL LOCKS

design positively fastens all sizes of reels, including the 101/2" NARTB, without use of adapters.

The combination of unitized construction with plug-in connectors and open access to all components, coupled with freedom from belts, clutches or pulleys, results in simplicity of maintenance unequalled in any other recorder now available.

## TO THE ENGINEER...

Compare this machine, point by point, with any other recorder on the market, regardless of price. You will find it the ideal recorder for your needs.



### THE BERLANT MULTICHANNEL MIXER

Versatile beyond belief, this 4-channel high level mixer handles any combination of audio inputs and feeds balanced or unbalanced loads with truly remarkable performance.

Plug-in accessories adapt the mixer from high to low impedance microphones. Variable reluctance pickups and high level signal sources such as tape recorders, radio tuners and crystal pickups can all be mixed in any desired combinations by plug-in accessories.

Addition of a plug-in output transformer adapts the MCM-2 to the needs of radio stations, recording studios and other professional users.

The built-in power supply and master gain control makes the unit entirely independent of surrounding equipment; insures extremely low hum and high signal-to-noise ratio. Because of its extreme versatility and high quality the Berlant Multichannel Mixer solves a problem for:

**CHURCHES SCHOOLS** RECORDING STUDIOS SOUND ENTHUSIASTS.

MUSICIANS RADIO STATIONS







## four input multichannel mixer

#### SPECIFICATIONS, MCM-2

### FREQUENCY RESPONSE:

 $50-15,000 \text{ CPS} \pm 1 \text{ db}.$ 

#### DISTORTION:

Less than 1% total harmonic distortion at full output.

#### SIGNAL TO NOISE RATIO:

Better than 55 db at full gain.

#### INPUT IMPEDANCE:

One megohm on high impedance input. 50/250 ohms with plug-in input transformer #T3344.

#### INPUT SENSITIVITY:

65 db below 1 volt will drive to full output level.

#### INPUT CONTROLS:

Individual control potentiometers on all four channels after second stage of amplification.

#### **OUTPUT IMPEDANCE:**

Cathode follower. 600 ohm balanced output with plug-in output transformer #T2560.

## **OUTPUT LEVEL:**

2 volts from cathode follower output. Zero DBM across 600 ohm line.

#### **OUTPUT CONTROL:**

Master gain controls mixed signal from all four channels simultaneously.

#### FILAMENT SUPPLY:

D.C. on all filaments.

#### DIMENSIONS:

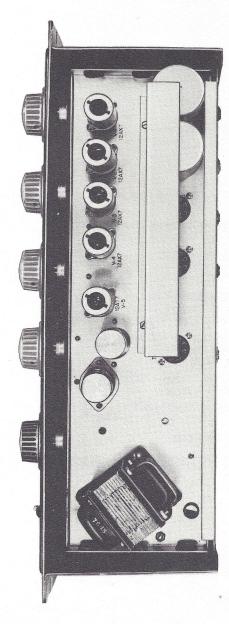
Mounted on 51/4" x 19" relay rack panel. Depth behind panel mounting surface, 6 inches.

12 pounds without plug-in transformers.

15 pounds with 5 plug-in transformers.

#### POWER REQUIRED:

115 volts, 60 cycles, 40 watts.



## PLUG-IN ACCESSORIES, MCM-2



## **INPUT TRANSFORMER (T-3344)**

Full frequency response shielded plug-in transformer for matching high impedance input to 50/250 ohm microphones \$18.00

#### **OUTPUT TRANSFORMER (T-2560)**

Full frequency response low distortion plug-in transformer for matching cathode follower output to 600 ohm balanced line output \$25.00



#### LOSSER PAD (L-69)

Knob adjustment to attenuate high impedance high level signals from phonograph, tape recorder, tuner, etc., to match microphone level without overloading. Attenuation can be set at zero db, 25 db or 50 db \$7.50



#### PHONO EQUALIZER (E-47)

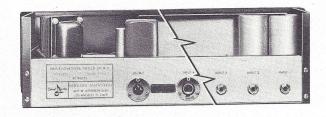
Matches variable reluctance phonograph to microphone input and provides proper equalization

\$7.50

# Berlant multichannel mixer mcm-2 in cc-1 carrying case



FRONT VIEW



REAR VIEW

AVAILABLE
WITH CANNON CONNECTORS
OR PHONO JACKS



## PROFESSIONAL USERS NET PRICES Effective May 15, 1954 (Prices subject to change without notice)

Cat. No.	
BR-1	BROADCAST RECORDER: 7½ and 15 i.p.s. Complete, consisting of separate drive mechanism and amplifier. Rack panel or horizontal mounting, single track heads
BR-2	BROADCAST RECORDER: Same as BR-1, except with dual track heads\$545.00
MCM-2J	BASIC MIXER, fitted with 3-contact telephone jacks. \$137.50
MCM-2C	MIXER, fitted with Cannon XL connectors\$145.00
MCM-2R	$\begin{array}{c} \textbf{MIXER,}  \text{with push-pull stage and transformer for} \\ +15 \text{VU 600 ohm output and Cannon XL connectors.} \\ & \textbf{\$175.00} \end{array}$
T-3344	INPUT TRANSFORMER: Full frequency response shielded plug-in transformer for matching high impedance input to 50/250 ohm microphones

BRDC-1	CARRYING CASE for Broadcast Drive Mechanishm. \$47.50
BRAC-1	CARRYING CASE for Broadcast Amplifier and Multi- Channel Mixer\$47.50
CC-1	CARRYING CASE for Amplifier\$24.50
T-2560	OUTPUT TRANSFORMER: Full frequency response plug- in transformer for matching cathode follower output to 600 ohm balanced line output\$25.00
L-69	LOSSER PAD: To attenuate high impedance high level signals to match microphone level. Attenuation can be set at zero db, 25 db, or 50 db
E-47	PHONO EQUALIZER: Matches variable reluctance pick- up to microphone input\$7.50
CC-1	CARRYING CASE for Mixer, MCM-2\$24.50

BERLANT ASSOCIATES 4917 West Jefferson Blvd., Los Angeles 16, California

MANUFACTURERS OF

Oncertone — WORLD'S FOREMOST HIGH FIDELITY TAPE RECORDERS AND ACCESSORIES

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