RADIO CORPORATION OF AMERICA

INDUSTRIAL ELECTRONIC PRODUCTS

GAMDEN 2. NEW JERSEY



September, 1961

Dear Broadcaster:

Here is information on the new RCA Cartridge Tape Recorder as advertised in Broadcasting magazine. Also enclosed is a description of the units and their accessories plus a testimonial letter from Station WKPA in New Kensington, Pennsylvania. One point I would like to make is to assure you that this recorder is not a copy of presently available cartridge tape recorders. It is superior in every respect and includes several new and exclusive features. They are!

- 1. ALL TRANSISTOR -- Long life transistors and diodes are used in the RT-7A playback unit and the BA-7A recording amplifier.
- 2. GOOD REGULATION -- A high-quality synchronous motor drives the tape at a constant $7\frac{1}{2}$ IPS. This assures more precise program timing.
- 3. HIGH EFFICIENCY -- Capstan motor starts when a cartridge is inserted in the recorder. This insures longer motor life and it also assures lower operating temperature of the recorder.
- 4. COMPACT -- Panel height of the RT-7A unit and BA-7A unit is only 5½". This compares to 8-3/4" and 7" for competitive units. Panel width of both units is 19" to permit mounting in standard racks or the attractively styled console cabinet. RCA's units require less space than any competitive cartridge recorder.
- 5. INDUSTRY COMPATIBILITY -- The RCA RT-7A is a half track recorder with provision for recording program material on one track and cue tones on the second track. The system is compatible with that employed in other cartridge equipment.
- 6. "STANDARD" CUE TONE -- The BA-7A record amplifier will include an oscillator for recording a tone on the cue track at the beginning of each recording. This cue tone is within the frequency range of 700 to 1 KC. This cue tone is used to automatically cue each tape at the beginning of each program, the same as in other cartridge recorders.

RCA Pioneered and Developed Compatible Color Television

- 7. TRIP-CUE OPERATION -- The RCA RT-7A cartridge system incorporates a built-in feature that is unique for tape cartridge equipment. Provision has been made in the recording amplifier to generate two cue signals. One of those is used as previously described to cue up the beginning of the tapes. The other signal (an 18KC to 20KC signal) is inserted on the cue track and can be placed anywhere on the cue track. If it were placed at the end of a recording, this second cue tone would cause the playback unit to trip and start another recorder while the tape continues to run until stopped by the first cue tone. With this scheme a station could cause two or a dozen or more RT-7A tape recorders to play sequentially. This minor form of automation should prove to be of great value in playing back a series of spots or musical selections. The trip cue circuitry could also be employed to activate standard tape recorders. turntables, or other devices capable of being remotely started.
- 8. POWER CONSUMPTION -- Advanced design of transistorized electronics cuts down power input requirements to less than half of what competitors specify. Units run cooler, assuring longer life.
- 9. AUTOMATIC AUDIO SWITCHING -- The automatic audio switcher unit will feed up to four playback machines into one consolette input. Several of the switcher units may be connected to feed additional cartridge recorders to a single consolette input.
- 10. INTERLOCKED RECORDING -- Careful consideration has been given to prevent unintentional recording. The recorder must be intentionally placed on the record mode before a recording can be made. A recorder drops out of the record mode whenever the tape is stopped.
- 11. COMPLETE LINE OF ACCESSORIES -- As you can see in the schedule sheets attached, RCA is providing a complete line of accessories for cartridge tape equipment. A full line of cartridges, remote control panels, bulk erasers, splicers, and mounting consoles are available in a matched system. All units are attractively styled to be fully compatible with other broadcast equipment.

Delivery on the tape units and accessories is 30 days from receipt of your order. Prices are listed in the enclosed Schedule A. Order yours today! You'll benefit by smoother operations, happier personnel, and quality commercials every time. Put the sizzle in your sell!

I know the above description of the RCA cartridge tape equipment will prove helpful to you in making your decision on what cartridge tape equipment to choose for your station. If you have any questions about this equipment or any other broadcast equipment, please contact me.

emm Encl.

Broadcast Equipment Sales

Very truly yours,

7901 Carpenter Freeway Dallas, Texas

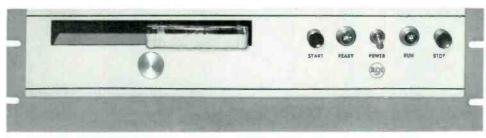
R. E. Smith



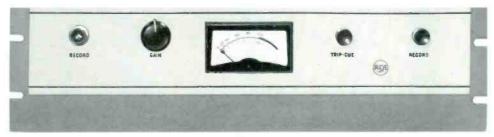
CARTRIDGE TAPE SYSTEM

TYPE RT-7A

B.1721



Playback Unit, Type RT-7A



Record Amplifier, Type BA-7A

FEATURES

- Immediate playback of taped commercials without threading or cueing
- Handles pre-recorded tape cartridge with up to 31 minutes playback time
- Complete transistor circuitry
- Cue tone for precision starts
- Contains trip-cue circuit for use in automation

- Synchronous motor runs only when cartridge is inserted
- Remote control provisions
- Full range frequency response at 7.5 IPS
- Each unit only 51/4 inches high for standard rack or console mounting
- Dependable, quiet operation

DESCRIPTION

The RCA Tape Cartridge System, Type RT-7A, places split second control of recorded programming at the broadcaster's fingertips. Broadcast material from "Quickie" spot announcements to complete programs may be recorded and stored ready for instant selection and playback. Delayed broadcast, spot announcement campaigns, production aids, themes, station breaks—anything that can be recorded may be handled by the RT-7A with a minimum of time and effort, even by non-technical personnel. With tape cartridges cueing and threading of tape is unnecessary. The desired cartridge is selected, placed in the playback unit and forgotten until "Air" time when it is instantly played back at the touch of the start button. Transistor circuitry, low power consumption, light weight and simplicity of operation makes the RT-7A an ideal choice for remote program recording or playback from remote broadcast locations.

In the TV studio, automatic operation of a slide projector may be accomplished by the trip-cue feature of the RT-7A. An announcement requiring one or more slides may be recorded with trip cues which, in turn, can be used to operate the slide projector as the announcement progresses.

The RCA Tape Cartridge System consists of two separate units, the Type RT-7A Playback Unit and the BA-7A Record Amplifier. Both units have a uniform panel height of only 5¼ inches and a panel width of 19 inches for standard rack or console mounting.

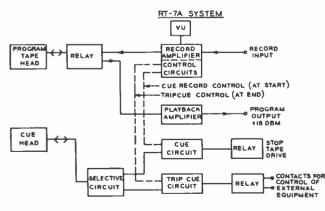
The RT-7A Playback Unit has been designed to reproduce tape cartridges loaded with lubricated tape varying in length from 40 seconds to 31 minutes. The RT-7A consists of a tape deck, power supply, playback amplifier and cue circuitry all designed for continuous use and housed in covered chassis. At the left of the front panel a horizontal

slot opening is provided for insertion of the tape cartridge. Manual controls, mounted to the right, include an "On-Off" toggle switch and "Start" and "Stop" pushbuttons. "Ready and Run" pilot lights indicate the operation condition of the equipment. Upon one insertion of a cartridge in the RT-7A, the "Ready" light comes on. When the "Start" button is depressed the "Run" light comes on and the tape moves across the playback and cue tone heads until a cue tone stops the equipment. At this point the "Ready" light is relit and the cartridge may be removed. Solenoid relays control the start and stop functions of the unit through impulses generated by a cue tone control circuit. These cue tone bursts are inserted automatically each time the tape is started during recording so that taped announcements may always be properly recued and ready for reuse.

A special feature of the RT-7A is the use of a second tripcue circuit which is independent of the cue-tone circuit. This feature allows the broadcaster to record a second trip-cue tone immediately at the conclusion of the program material. The trip-cue, when activated, during playback can be used to start the next device in an automatic or semi-automatic system with split second timing.

The Record Amplifier, Type BA-7A, contains a VU meter for correct level adjustment, an input level control and the necessary cue and trip-cue tone controls. Operating voltages for the BA-7A are supplied by the RT-7A Playback Unit. Careful consideration has been given to prevention of accidental recording. The recorder must be intentionally placed in the record mode before a recording can be made, and drops out of this mode whenever the tape is stopped. A cue tone is automatically recorded each time the START button is operated when in the record mode. Used cartridges can be erased with accessory Bulk Eraser, MI-11992.

Simplified Diagram of Cartridge Tape System.



SPECIFICATIONS

21	ECIFICATIONS	
Frequency Response		—12,000 cps at 7.5 ips 15,000 cps at 7.5 ips
Distortion	2% or less at	normal recording level
Signal-ta-Noise Rotio		
Waw and Flutter		
Tape Speed		7.5 ips
Equalization	Standard EIA	playback equalization
Playing Time	1 sec. to 31 minutes in	3 basic cartridge sizes
Cueing Accuracy		
Starting Time		0.05 sec. or less
Output	+18 dbm, 150	or 600 ohms, balanced
Input	20 dbm or line (+)	ge, bolanced 600 ohms
Power1	15/230 volt; a-c, 50/	60 cycles, single phase
Power Consumption	Sto	andby position—8 wotts
		eady position—29 watts
		back position—35 watts cord position—40 watts
Transistor and Diade Car		cord position 40 words
RT-7A Playback Unit:		
5—2N406	1—2N1184B	1—2N301
1—2N404 1—1N60	2—1N2069 2—2N398	4—2N220 3—1N1763
4-2N586	2-214376	3-1141703
BA-7A Record Amplifie	r:	
	2—2N586	1—1N60
Finish	Umber groy and	l satin etched oluminum
Dimensions Overall:	100	. E1/.// Link 19// Jane
RI-/ A	19" wide	e, 5¼" high, 12" deep e, 5¼" high, 10" deep
Weight:		, •,•
		35 lbs.
		11 lbs.
Stock Identification:		MI-11957
		MI-11490
		MI-11958
Spare Transistor & Dio	de Kit for BA-/A	MI-11491
Accessory Equip	ment	
Remote Control Panel wit Remote Control Panel w		
buttons for recording		
Automatic Switcher, switc		
console input		
Console cabinet to house one BA-7A (gray "Tex	e two KI-/A or one tured Textolite" lomin	KI-/A and ated finish
and removable legs. S deep, with legs 30" h	iize: 21" long, 13" hi	igh, 191/4"
deep, with legs 30" h	igh	MI-11984
Cartridge storage rack Maunts above or below	to hold 80 type 300	cartridges
tured Textalite" finish	w mi-i 1963 cabinet. (1 1.) Size: 36" lana.	16" high.
9" deep		MI-11985
Console Cabinet to hous	se four RT-7A's or thr	ee RT-7A's
and one BA-7A. (Gray finish with removable	y "Textured Textolite"	lominoted
191/4" deep, with legs	30" high	MI-11983
Tape Cartridge Eraser		MI-11992
40 second, series 300 car		
70 second, series 300 car 3½ minute, series 300 ca		
51/2 minute, series 300 co	artridges, packed 6 to	a boxMI-11988-4
10√2 minute, series 300 c	artridges, packed 6 to	a boxMI-11988-5
16 minute, series 600 car		
31 minute, series 1200 c Series 300 blank cartridg		
Series 600 blank cartridg		
Series 1200 blank cartrid		
Azimuth duanment tane	TIUUUUU and 14 000 /	rycie tonel MI-11027

Azimuth alignment tape (10,000 and 14,000 cycle tone) MI-11987 MM-151 Bulk lubricated tape (1700' on 7" reel)......MI-11986



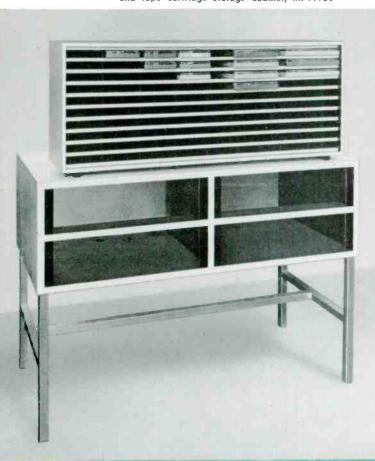
CATALOG

FEATURES

- Choice of attractively styled consoles for two or four RT-7 Playback/Record units
- Matching storage cabinet with large tape cartridge capacity
- Affords ease of identification and efficient handling of cartridges
- Flexible mounting system meets varying studio space requirements
- Adjustable cabinet spacers accommodate small or large cartridge
- Provisions for mounting automatic switcher, standard audio panels and other equipment



Four-Unit Console, MI-11893 and Tape Cartridge Storage Cabinet, MI-11985



DESCRIPTION

RCA Tape Cartridge Consoles provide mountings at a convenient operating level for the RT-7 Tape Cartridge Playback Units and the BA-7 Tape Cartridge Record Amplifier. MI-11984 is a two-unit console designed to mount two playback units, or one playback unit and one recorder. MI-11983 Console is a four-unit cabinet to mount four playback or one recorder and three playback units with sufficient space at the rear to mount an Audio Automatic Switcher, MI-11982. A Tape Cartridge Storage Cabinet, MI-11985, provides ten shelves 11/2 inches high which may be divided as desired to accommodate an assortment of all three series (300, 600 and 1200) of tape cartridges by positioning the eight specially designed spacer boards and 10 individual separators.

Consoles and cabinet are sturdily constructed of plywood with a gray, textured Textolite laminate finish. Holes in the cabinet accommodate interconnection cables and afford ventilation. Protective screens, attached to the rear frames also provide ventilation. Removable legs, which come disassembled with necessary hardware, are 17-inches long and afford a convenient operating height of 30 inches overall for the consoles. The cabinets may be used without legs.

Cabinet MI-11985 is set up to store 80 small, 300 Series tape cartridges. To accommodate the larger 600 and 1200 series cartridges, in whatever combination desired, the separators and spacer boards must be adjusted or removed. The storage cabinet may be placed on top of the consoles. Two cabinets can be accommodated if stood back-to-back. Mounting feet have been provided so that the cabinet may be placed on the floor underneath the MI-11983 Console. There is room for two storage cabinets, one on each side of the cross bar.

SPECIFICATIONS

	2 Unit	4 Unit	Storage
	Console	Console	Cabinet
	MI-11984	MI-11983	MI-11985
Construction	Plywood	Plywood	Plywood
Finish	Grav Textured	Gray Textured	Gray Texture
	Textolite	Textolite	Textolite
	Laminate	Laminate	Laminate
Legs	17" long,	17" long,	
	removable	removable	
Dimensions (overall)			
Width	203/4"	403/4"	357/8"
Depth	195/6"	195/6"	9"
Height (less legs)	13"	13"	16"
Height (with legs)	30′′	30"	_
Weight (approximate)	25	40	30

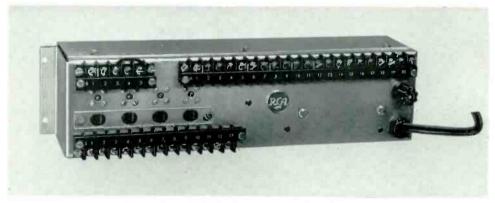
Equipment Supplied

Console Cabinet for two RT-7 or one RT-7 and one BA-7
Units complete with legs and mounting hardwareMI-11984
Console Cabinet for four RT-7 or three RT-7 and one BA-7
Units complete with legs, crossbar, and mounting hard-
wareMI-11983
Cartridge Storage Cabinet with dividers and spacer boards
set up to store 80 small, 300 series tape cartridges MI-11985



Convenient two-unit cabinet console for mounting one RT-7 Tape Cartridge Playback Unit and one BA-7 Record Amplifier, or two RT-7 Playback Units.

AUDIO AUTOMATIC SWITCHER, MI-11982



Front view of Audio Automatic Switcher, MI-11982.

Audio Automatic Switcher, MI-11982, is an important unit in RCA's Cartridge Tape System affording a means to switch up to four RT-7 outputs to one console input. Thus a maximum of four units may be serviced by one MI-11982 switcher; however, the switchers may be connected in tandem to service multiple playback units when desired.

Equipment Supplied

Audio Automatic Switcher complete with line cord and plug....MI-11982

SPECIFICATIONS

3. 2011	CATIONS
Operation	Sequential
	volts, a-c, 50/60 cycles, single phase
Line Cord and Plug	
Fuse	
Diode	1 Type 1N1763
Dimensions (overall):	
Height	31/4"
Width	13"
Depth	211/6"
Waight	4 IL.

www.americanradiobjetary.co

BULK ERASER, MI-11992

Bulk Eraser, MI-11992, affords complete erasure of any recorded reel of tape or magnetic sound film, whether it is plastic or metal. The eraser will demagnetize record-playback and erase heads, thus eliminating distortion and tape background noise problems.

The bulk eraser is housed in a plastic, hand-grip case measuring only 4% inches in diameter and 4% inches high overall. A momentary-contact, ON-OFF pushbutton safety switch prevents current being applied when not in use. To operate, simply plug into any a-c outlet and hold over the reel of tape, then rotate the eraser around the tape for several seconds. Slowly withdraw the eraser from the tape to arms length before releasing on-off pushbutton.

SPECIFICATIONS

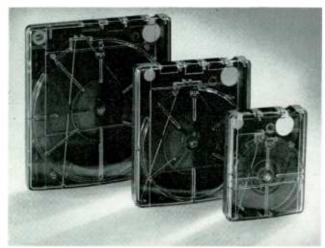
Power Consumption	100-130 volts, 50/60 cycles, a-c,
	single phase, 8.5 amps
SwitchMomentary	contact rating 15 amp a-c inductive
Line Cord	
Dimensions (overall)47/8" d	ia. by 43/4" high (including handle)
Weight	



Bulk Eraser, MI-11992, affords convenient means of cleaning magnetic tape and film of sound and noise.

Equipment Supplied

SERIES OF CARTRIDGES, MI-11988 SERIES



Series 1200, 600 or 300 (large, medium and small) tape cartridges offer broadcaster choice of playing time ranging from seconds to a half hour.

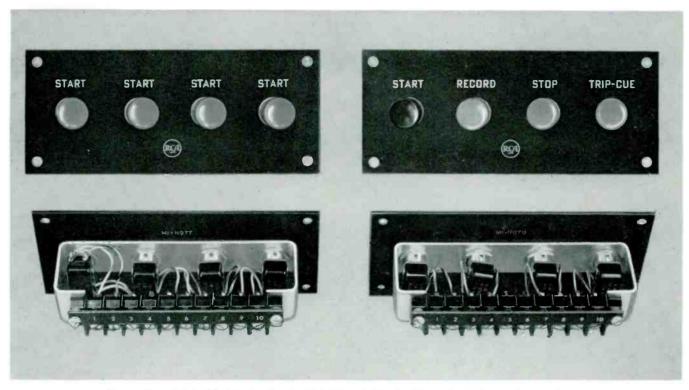
Cartridges, blank or tape loaded, for use with the RCA Type RT-7 Tape Cartridge System are made available in varying sizes and with convenient playing time ranging from 40 seconds to more than a half hour. Cartridge cases are plastic with clear top and RCA Light Umber Gray base. Cartridges are loaded with Type B151 single-coated lubricated tape, and wound for continuous-loop operation with the RT-7 Playback Unit. Special tape lengths are available to order.

Optional and Accessory Equipment

Azimuth Alignment Tape (10,000 and 14,000 cycles tone)	
supplied in 300 series cartridge	987
Type B151 Bulk Lubricated Tape (1700 feet on 7-inch reel) MI-11	986
Frequency Reponse Cartridge,	
calibrated, voice identified test frequencies MI-11	993-1

Specifications and Ordering Information

Stock Identification	Series	Playing Time	Size Overall	Unit Weight	Packing	Total Weight
MI-11988-1	300	40 secs.	4" w x 51/8" d x 7/8" h	3 oz.	6/box/MI	11/4 lbs.
MI-11988-2	300	70 secs.	4" w x 51/8" d x 7/8" h	31/2 oz.	6/box/MI	11/2 lbs.
MI-11988-3	300	31/2 min.	4" w x 51/8" d x 7/8" h	4 oz.	6/box/MI	13/4 lbs.
MJ-11988-4	300	51/2 min.	4" w x 51/8" d x 1/8" h	41/2 oz.	6/box/MI	2 lbs.
MI-11988-5	300	101/2 min.	4" w x 51/8" d x 7/8" h	51/2 oz.	6/box/MI	21/4 lbs.
MJ-11988-6	600	16 min.	6" w x 7" d x 7/8" h	10 oz.	2/box/MI	11/2 lbs.
MI-11988-7	1200	31 min.	75∕a" w x 83⁄a" d x 7⁄a" h	13 oz.	2/box/MI	2 lbs.
MI-11988-8	300	blank	4" w x 51/8" d x 7/8" h	2¾ oz.	6/box/MI	11/8 lbs.
MI-11988-9	600	blank	6" w x 7" d x 1/8" h	3 oz.	6/box/MI	11/4 lbs.
MI-11988-10	1200	blank	75/8" w x 83/8" d x 7/8" h	4 oz.	2/box/MI	10 oz.



Front and rear views of RT-7 System Remote Control Panels. Panel MI-11977 (on left) remotely controls one to four RT-7 Playback Units. Panel MI-11979 (on right) remotely controls functions of the Record Amplifier.

RT-7 REMOTE CONTROL PANEL

Remote Control Panel, MI-11977 provides a convenient means for remotely controlling from one to four RT-7 Cartridge Tape Playback Units. Through a rear terminal board connections may easily be made directly to the playback unit or to the MI-11982 Audio Switcher for controlling multiple units. Four red pushbuttons on an aluminum panel, labelled "START," control all operations.

SPECIFICATIONS

Dimensions (overall):	
Height	21/2"
vice by	6"
Depth	213/16"
Weight	½ lb.
The state of the s	Dark umber grav

Equipment Supplied

Remote Control Panel for RT-7 Playback Unit Complete......MI-11977

BA-7 REMOTE CONTROL PANEL

Remote control of the BA-7 Record Amplifier in the RT-7 Cartridge Tape System is provided by Remote Control Panel, MI-11979. Operational functions of the BA-7 can be transferred to the remote control panel with its four pushbutton controls—START, RECORD, STOP, AND TRIP-CUE. The panel is identical in size and styling with the remote control panel for the RT-7 Playback Unit.

SPECIFICATIONS

Dimensions (overall):	
Height	21/2"
Width	6"
Depth	213/16"
Weight	
Finish	
Equipment Supplied	
Remote Control Panel for BA-7 Record Amplif	Ger MI 11970



TR-6 (0961) Page....1

SCHEDULE A LIST OF EQUIPMENT AND SERVICES TO BE FURNISHED BY RCA

TEM	QTY.	MI NUMBER	DESCRIPTION AND UNIT PRICE		AMOUNT	ESTIMATED DELIVERY DAT
			CARTRIDGE TAPE RECORDERS			
		11957	RT-7A Cartridge Tape Playback Unit	\$551.25		
		11490	Spare Transistor & Diode Kit for RT-7A			
		11958	BA-7A Cartridge Tape Recording Amplifie:	r 350.00		
		11491	Spare Transistor & Diode Kit for BA-7A			
		11977	Remote Control Panel with four start buttons.	25.00		
		11979	Remote Control Panel with Start, Record Stop and Trip Cue Buttons	25.00		
		11982	Audio Automatic Switcher	135.00		
		11984	Console Cabinet (mounts 2 units)	95.00		
		11983	Console Cabinet (mounts 4 units)	120.00		
		11985	Cartridge Storage Rack	120.00		
		11992	Tape Cartridge Eraser	35.00		
		11991	Tape Splicer			
		11988-1	40 Second Series 300 Cartridge (Packed 6 to an MI)	15.60/BX		
		11988-2	70 Second Series 300 Cartridge (Packed 6 to an MI)	16.02/B		
		11988-3	3.5 Min Series 300 Cartridge (Packed 6 to an MI)	17.88/B		
		11988-4	5.5 Min Series 300 Cartridge (Packed 6 to an MI)	21.66/B		
		11988-5	10.5 Min Series 300 Cartridge (Packed 6 to an MI)	28.50/BX		
		11988-6	16 Min Series 600 Cartridges (Packed 2 to an MI)	13.50/B		
		11988-7	31 Min Series 1200 Cartridge (Packed 2 to an MI)	20.80/B		



TR-6)
(0961	.)

Page	2
of	2

SCHEDULE A LIST OF EQUIPMENT AND SERVICES TO BE FURNISHED BY RCA

EM Q	DESCRIPTION AND UNIT PRICE			AMOUNT	DELIVERY DAT
	11988-8	Series 300 Blank Cartridges (Packed 6 to an MI)	12.00/BX		
	11988-9	Series 600 Blank Cartridges (Packed 6 to an MI)	17.64/EX		
ļ	11988-10	Series Blank Cartridges (Packed 2 to an MI)	8.28/BX		
	11987	Azimuth Alignment Tape	5.75		
	11986	NM 151 Bulk Lubricated tape	8.50		
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MELVIN A. GOLDBERG, GENERAL MANAGER

ALLEGHENY-KISKI BROADCASTING COMPANY

810 FIFTH AVENUE New Kensington, Pa.

EDISON 7-3588

321 FIFTH \VENUE TARENTUM, 1A.

July 7, 1961

James E. Landy R.C.A. 1600 Keith Bldg. 1621 Euclid Avenue Cleveland 15, Ohio RECEIVED
JUL 10 1961
J. E. LANDY

Dear Jim,

Your BT-7A (Cartridge Playback Unit) is a thing of beauty! If (and we have great expectations) it continues with its present performance, it will be a joy forever here at WKPA.

Features that fit in beautifully with our already packed controll room are the compactness of the two playback units and the accompanying record unit. The virtually silent operation of the units makes our operator wonder if this mechanical marvel is really working. But there it is in all its perfect reproduction -- you gets out what you puts are sometimes even better.

Cue fluffs are a thing of the past at WKPA. Our BT-7A has is missed a cue yet! We love them...the perfect companions with the sound you'd love to touch.

Sincerely,

Production Manager, WKPA

PS/enc. JG:dmk

SELLING RESULTS - WITH 1000 WATTS

