BROADCAST AUDIO EQUIPMENT

RCA

Instructions

RADIO CORPORATION OF AMERICA, Industrial Electronic Products

BN6B

Type BN-6B

Transistor Portable Remote Amplifier

REMOTE AMP

Tmk(s)®

IB-24723-3

EQUIPMENT LOST OR DAMAGED IN TRANSIT

When delivering the equipment to you, the truck driver or carrier's agent will present a receipt for your signature. Do not sign it until you have (a) inspected the containers for visible signs of damage and (b) counted the containers and compared with the amount shown on the shipping papers. If a shortage or if evidence of damage is noted, insist that notation to that effect be made on the shipping papers before you sign them.

Further, after receiving the equipment, unpack it and inspect thoroughly for concealed damage. If concealed damage is d scovered, immediately notify the carrier, confirming the notification in writing, and secure an inspection report. This item should be unpacked and inspected for damage WITHIN 15 DAYS after receipt.

Report all shortages and damages to RCA, Broadcast and Television Department, Camden 2, N. J.

Radio Corporation of America will file all claims for loss and damage on this equipment so long as the inspection report is obtained. Disposition of the damaged item will be furnished by RCA.

REPLACEMENT PARTS AND ENGINEERING SERVICE

RCA field engineering service is available at current rates. Requests for field engineering service may be addressed to your RCA Broadcast Field Representative or the RCA Service Company, Inc., Broadcast Service Division, Camden, N. J. Telephone: WOodlawn 3-8000.

When ordering replacement parts, please give symbol, description, and stock number of each item ordered.

The part which will be supplied against an order for a replacement item may not be an exact duplicate of the original part. However, it will be a satisfactory replacement differing only in minor mechanical or electrical characteristics. Such differences will in no way impair the operation of the equipment.

The following tabulations list service parts and electron tube ordering instructions according to your geographical location.

SERVICE PARTS

LOCATION	ORDER SERVICE PARTS FROM:
Continental United States, including Alaska and Hawaii	RCA Electron Tube Division, Parts and Equipment, P.O. Box 654, Camden, New Jersey or through your nearest RCA Regional Office, Emergency orders may be telephoned, telegraphed or teletyped to RCA Emergency Service, Bldg. 60, Camden, N.J. (Telephone: WO 3-8000).
Dominion of Canada	RCA Victor Company Limited, 1001 Lenoir Street, Montreal, Quebec or through your local Sales Representative or his office.
Outside of Continental United States, Alaska, Hawaii and the Dominion of Canada	RCA International Division, Clark, N. J., U.S.A., or through your local Sales Representative.

ELECTRON TUBES

LOCATION	ORDER ELECTRON TUBES FROM:
Continental United States, including Alaska and Hawaii	Local RCA Tube Distributor.
Dominion of Canada	RCA Victor Company Limited, 1001 Lenoir Street, Montreal, Quebec or through your local Sales Representative or his office.
Outside of Continental United States, Alaska, Hawaii and the Dominion of Canada	Local RCA Tube Distributor or from: Tube Department RCA International Division 30 Rockefeller Plaza New York 20, New York, U.S.A.

RETURN OF ELECTRON TUBES

If for any reason, it is desired to return tubes, please return them through your local RCA tube distributor, RCA Victor Co., Ltd., or RCA International Div., depending on your location.

PLEASE DO NOT RETURN TUBES DIRECTLY TO RCA WITHOUT AUTHORIZATION AND SHIPPING INSTRUCTIONS.

It is important that complete information regarding each tube (including type, serial number, hours of service and reason for its return) be given.

When tubes are returned, they should be shipped to the address specified on the Return Authorization form. A copy of the Return Authorization and also a Service Report for each tube should be packed with the tubes.

LIST OF RCA REGIONAL OFFICES

Atlanta 3, Georgia
1121 Rhodes-Haverty Bldg.
134 Peachtree St. N.W.
JAckson 4-7703

Boston 16, Mass.
Room 2301, John Hancock Bldg.
200 Berkley St.
HUbbard 2-1700

Chicago 54, Ill.
1186 Merchandise Mart Plaza
DElaware 7-0700

Cleveland 15, Ohio
1600 Keith Bldg.
CHerry 1-3450

Dallas 35, Texas
7901 Empire Freeway
FLeetwood 2-3911

Hollywood 28, Calif.
RCA Bldg., 1560 N. Vine St.
HOllywood 9-2154

Kansas City 6, Missouri
340 Home Savings Bldg.
HArrison 1-6480

New York 20, New York
36 W. 49th St.
JUdson 6-3800

Branch—San Francisco 2, Calif.
420 Taylor St.
ORdway 3-8027

Seattle, Washington
2250 First Ave., S.
MAin 2-8350

BROADCAST AUDIO EQUIPMENT

INSTRUCTIONS

Type BN-6B
Transistor Portable Remote Amplifier
MI-11221-B

RADIO CORPORATION OF AMERICA
INDUSTRIAL ELECTRONIC PRODUCTS, CAMDEN, N. J.

PRINTED IN U.S.A.
DU 5109

Figure 1 - Type BN-6B Transistor Portable Remote Amplifier

TECHNICAL DATA

Power Required

AC Power: 117 v, 50-60 cycles, 5 watt
DC Supply: Batteries MI-11778 (not supplied with MI-11221-B)

Fuse

1/16 amp 3AG

Transistor and Diode Complement

5 2N175 (RCA) Input stages and succeeding gain stage

3 2N109 (RCA) Gain stage, driver and PNP part of the complementary symmetry output stage

1 2N35 or 2N214 (Sylvania) NPN part of the complementary symmetry output stage

2 1N91 Germanium rectifiers

Frequency Response

±1-1/2 db at 30 to 15,000 cps

Source Impedance

150 ohms

Load Impedance

30 ohms

Input

150/30 ohms

Output

600/150 ohm + 18 dbm

Gain

88 db ± 2 db 150-ohm source to 600-ohm load

Harmonic Distortion

Less than 1.5% at 30 to 50 cps
Less than 1% at 50 to 10,000 cps
Less than 3% at 10,000 to 15,000 cps
(+ 18 db output)

Less than 1.25% at 30 to 50 cps
Less than 1% at 50 to 10,000 cps
Less than 1.25% at 10,000 to 15,000 cps
(+ 8 db output)

Noise Level

-52 dbm
Single channel, gain 68 db, master gain control set at 12, mixer gain at 16.

Correspond to signal-to-noise ratio 70 db at rated power output of + 18 dbm.

Dimensions and Weight

Height - 5-5/8 inches
Width - 16-1/2 inches
Depth - 10-1/2 inches

Weight - 25 pounds (approximately)
Finish - two tone umber gray

DESCRIPTION

The Type BN-6B Amplifier, MI-11221-B, is a four channel unit designed especially for broadcast programs remote from the studio. This unit amplifies low level signals to a level suitable for transmission over a telephone line to the studio. Other features include complete cuing and monitoring facilities, etched circuit boards, use of transistors and germanium diodes and of either batteries or self-contained ac power supply.

The BN-6B amplifier is supplied in a rugged carrying case. The specially designed lid may be removed from the hinge pins, turned over and replaced against the side with the mounting grommets. In this position the lid forms a rest for the entire assembly at an angle which makes the control panel easily accessible for operation. The AC power cord is supplied clamped inside the lid of the carrying case. A weather-proof canvas carrying case MI-11377 is also available as optional or accessory equipment.

Circuit

The BN-6B Amplifier has four separate input channels which can be operated either balanced or unbalanced. Balanced operation is accomplished by plug-in transformers MI-11776 (992074-1) which may be ordered separately. The 2N175 low-noise transistors are used in the input stages and in the following preamplifier stage. The driver stage is a conventional amplifier stage. No phase inversion is necessary since a complementary symmetry stage is used in the output. An isolation pad is connected to the transformer primary to protect the output transistors from damage in case of shorting the line.

The VU meter both monitors, the output level and tests the battery current. A separate flashlight type battery is necessary for VU meter illumination when the unit is operated from battery supply. Batteries are not supplied with the equipment. Lightweight, long life mercury batteries should be ordered for the battery power supply. The battery kit MI-11778 may be ordered which includes 5 PR. Mallory #TR135R, 6.5 volt type and one RCA #VS036, 1.5 volt type. The ac power supply consists of a full wave rectifier circuit using germanium diodes and an r-c filter.

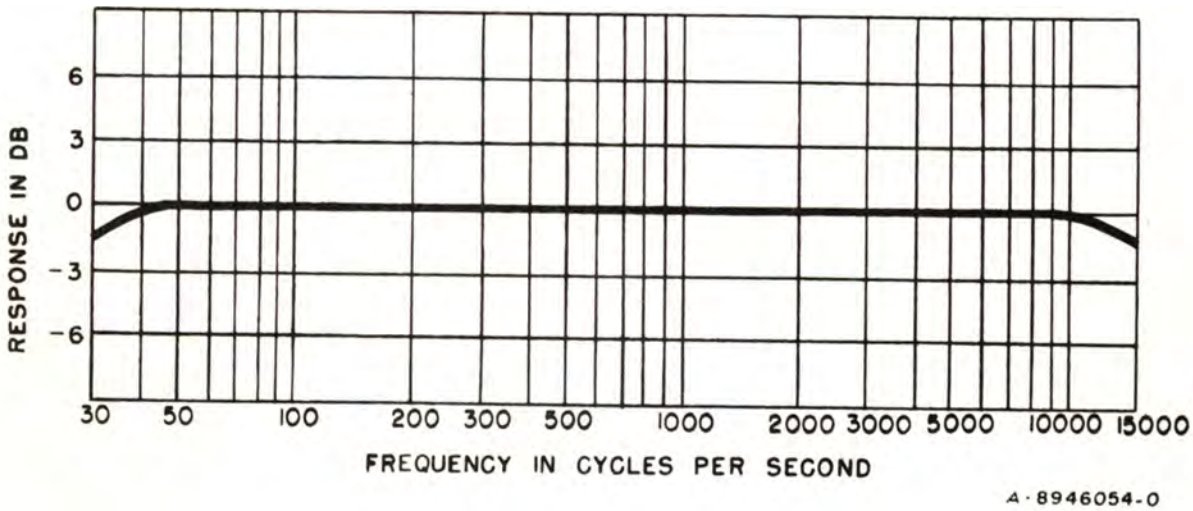


Figure 2 - Typical Frequency Response Curve

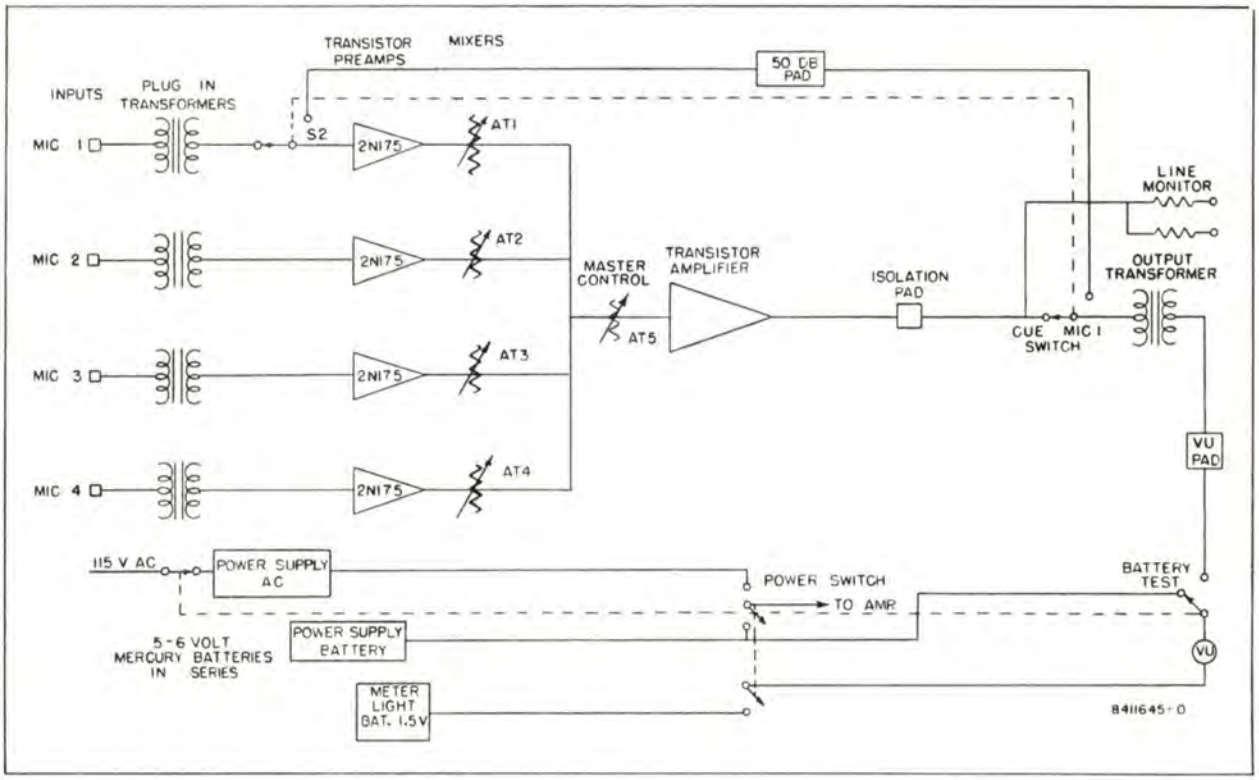


Figure 3 - Block Diagram

INSTALLATION

Transistors

All transistors are shipped in place. The sockets are mounted on the printed circuit boards. Replacement transistors are easily plugged in as needed.

CAUTION: Do not remove or insert the transistors when the power is ON. Transistors may be damaged resulting in excessive noise and distortion. Allow approximately 1 minute after power is off before removing transistors.

Internal Connections

The BN-6B amplifier is shipped connected for either 150 or 30 ohm unbalanced input and a 600 ohm output. A plug is provided for each input socket. For an unbalanced line either 30 or 150 ohm microphone may be used. For a balanced line the plug-in transformer MI-11776 may be ordered. The sockets are connected for 150-ohm input balanced line; however, for a 30-ohm balanced line, move connections on the socket from terminal 1 to terminal 2 and from terminal 5 to terminal 4.

Installation of Batteries

The preamplifier is shipped without batteries. These may be ordered separately as MI-11778 which includes five PR. Mallory #TR135R - 6.5 volts and one RCA #VS036 - 1.5 volts. To install the RCA battery, remove the cover and place it firmly in the clips secured to the top shelf of the chassis in the right hand corner. A cylindrical case holds the five batteries and is secured by two clips fastened to the bottom of the chassis.

VU Meter

The VU meter mounted on the front panel is a standard meter and provides a means of measuring both the volume level of the amplifier output and the battery current. To measure the battery current, turn the POWER switch to the BATT TEST position. When the meter indicates the center position or 100,

the battery current is at its peak, 32 volts. The amplifier should not be operated with the battery reading below 10% less than the 100 reading. The VU meter attenuator is designed to give a meter reading of 0 on the VU scale with an output of 8 dbm. The mercury type batteries are capable of approximately 40 hours continuous operation. The RCA battery which supplies the meter illumination should be changed whenever the light appears dim.

AC Power Cord

The eight-foot power cord is supplied folded and clipped into the lid of the carrying case as shown in figure 7. The AC connector on the back panel is a twist lock type. Connect the power cord matching plug to the amplifier connector and plug the other end into a convenient 117-volt outlet.

CUE-MIC-I Switch

Plug a set of headphones in the PHONO jack provided for monitoring the output. Normally the signal from the studio is strong enough to hear the signal on line gain; if the signal should be weak, turn the spring return switch to the CUE position. The signal will then be amplified through the BN-6B amplifier to the headphones independent of whether the line is balanced or unbalanced. This is a spring return switch to assure operation on MIC-1 position at all times.

Binding Posts

Three binding posts are mounted on the back of the chassis, two for the line output connection and one for ground. The output connection is made through the telephone line for remote operation.

OPERATION

When the source of power to be used has been determined, AC or battery, set the amplifier on a convenient surface and adjust the handle underneath as desired. Then proceed as follows:

1. If AC power is to be used, plug the cable connector into the receptacle on the back of the amplifier and connect to a convenient 117-volt ac outlet. Turn the POWER switch to the AC ON position.

2. If batteries are to be used, turn the POWER switch to the BATT. TEST position and check the VU meter reading. If the reading is satisfactory, not below 10% less than the 100 reading, turn the POWER switch to BATT ON position.

3. Plug headphones in the PHONO jack provided for monitoring.

4. Plug in the microphones; all four receptacles may be used at one time if desired. Low impedance broadcast microphones such as the RCA BK-5A or BK-6A are recommended. Make certain that each cable on the microphones selected has a connector, plug XLR-3-12C, MI-11089A, matching the receptacles on the BN-6B amplifier.

MAINTENANCE

Fuse Replacement

When replacing a fuse, make sure that the replacement fuse is of the same type and rating, 1/16 amp 3AG, slo-blo, as the one furnished with the amplifier. To use a fuse of higher rating for replacement purposes will needlessly endanger the windings of the power transformer.

Servicing of the Etched Wiring Board Assemblies

The etched wiring boards are made of .062 inch thick paper base phenolic laminate to one side of which is bonded a thin sheet of copper. The conductor pattern is formed by an etching process. Component leads are threaded through holes which are punched into the board. The ends of the leads extending through the board are bent over against the copper conductors. The complete assembly is subsequently dip-soldered.

Components may be replaced easily by following these simple instructions. Care should be observed not to break or crack the board by undue stress or to damage the bonding adhesive by applying too much heat during soldering.

I. Tools Required

a. A small (35 watt or less) pencil type soldering iron.

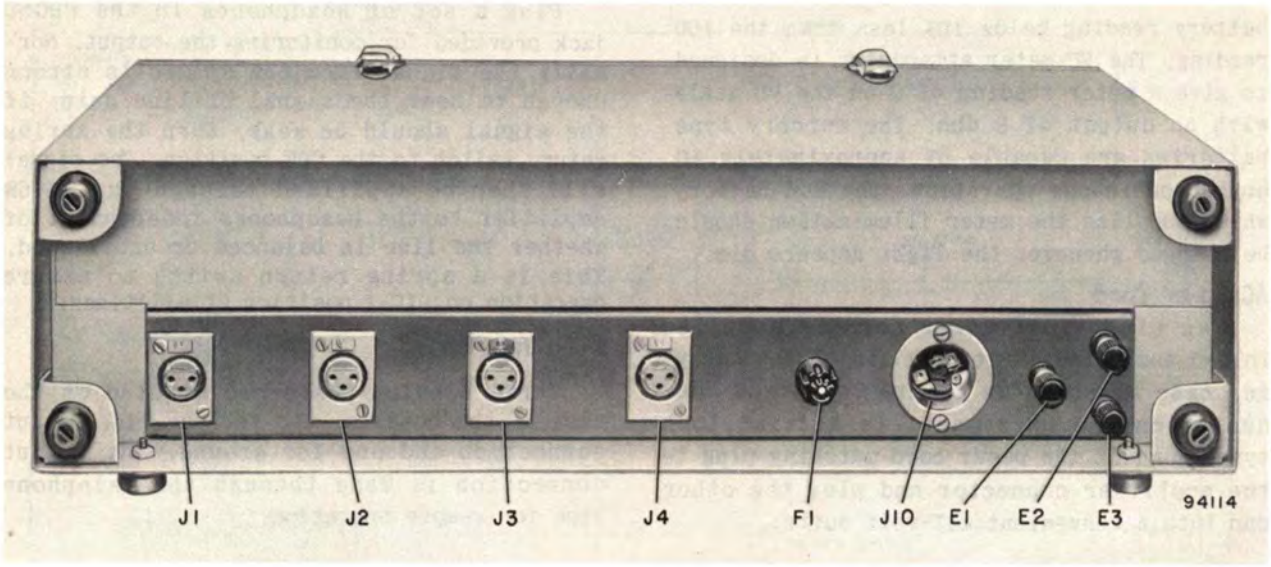


Figure 4 - Rear View of Amplifier

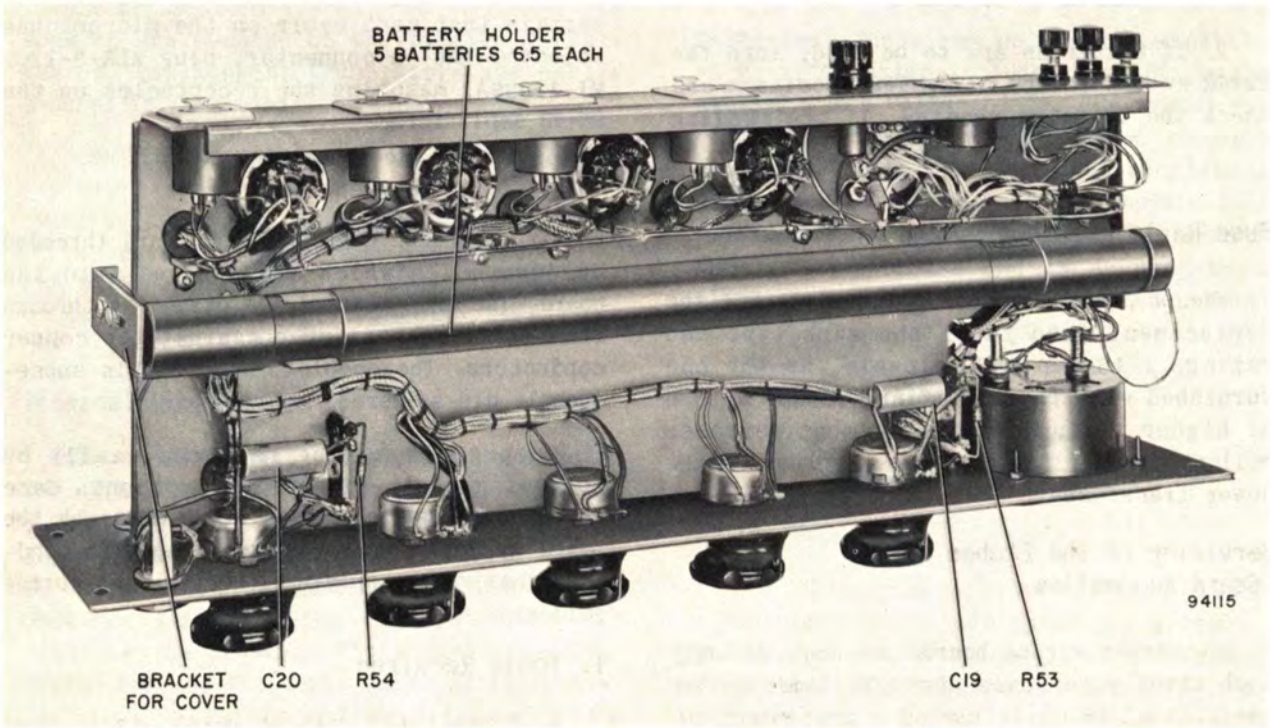


Figure 5 - Battery Tubular Case on Bottom of Chassis

b. A pair of small diagonal cutters.

c. A pair of small long nose pliers.

d. A scribe or pick.

e. A small knife.

2. Emergency Repairs

If it is known which component is defective, it may be replaced without removing the board from its mounting.

a. In the case of a small component, such as a 1/2 or 1 watt resistor, cut the component in half using diagonal pliers. Crush the body by means of the long nose pliers. This is done to obtain extra lead length. In the case of larger components, clip the leads as close as possible to the component body.

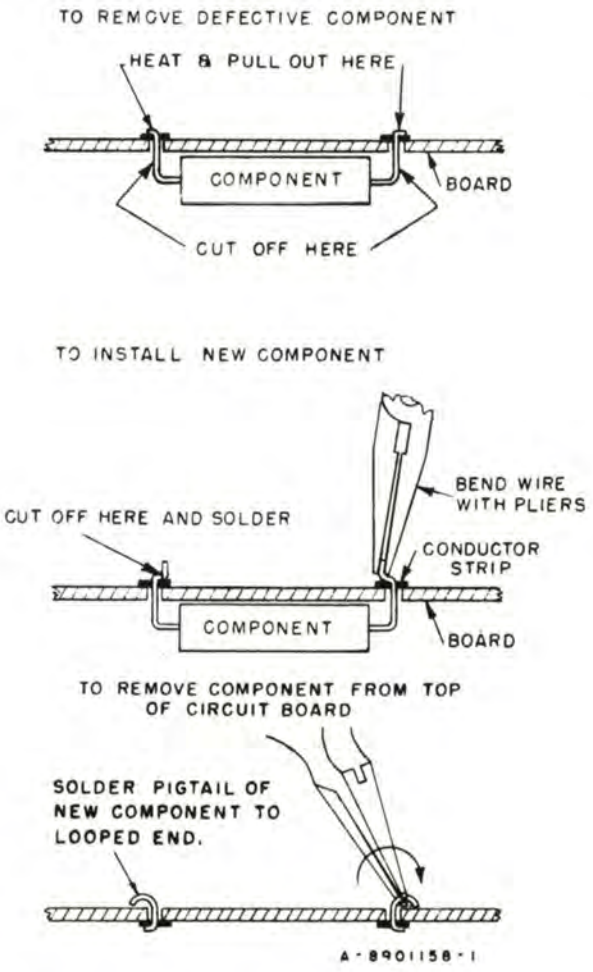


Figure 6 - Method for Replacement of Components on Printed Circuits

b. Using long nose pliers, form a loop of the lead ends as shown in figure 6.

c. Thread the leads of the new components through these loops. Cut off the excess lead, crimp and solder the connection.

3. Permanent Repairs

a. Remove the hardware fastening the board to the chassis and tilt the board up.

b. Isolate the defective component. If it is necessary to disconnect a component from the circuit for test, heat the junction of the component lead and the etched wiring with the soldering iron. The heat should be concentrated on the component lead rather than the etched wiring pattern. Pry up and straighten the bent over portion of the component lead with a knife blade, then pull lead through the hole with pliers.

c. To remove the defective component, snip the leads off at the component side of the board, see figure 6.

d. Using a small soldering iron (35 watts or less) heat the leads and remove them from the printed wiring side of the board. Be careful not to apply too much heat or force to avoid damage to the thin copper conductors.

e. Clean and preform the leads of the new component and insert through the holes until the component body is tight against the board.

f. On the circuit side, grasp the component lead and bend it over in the direction of the circuit pattern.

g. Crimp the wire tightly against the board (see figure 6), and cut off the excess component lead. Leave about 1/16 inch of wire protruding from the edge of the hole.

h. Heat the lead and apply rosin core solder. *DO NOT USE PASTE OR ACID FLUX.* Remove excess rosin from the joints with alcohol.

i. Replace the circuit board, using the original hardware.

4. Replacement of Transistor Sockets

Follow the same procedures outlined for components. The tiny transistor sockets are mounted on top of the circuit board.

Voltage Readings

The following table shows the typical voltage to ground readings at the transistor socket terminal. These readings were obtained with an RCA Voltohmist. The values are approximate and may vary ±20% due to production tolerances on transistors. The measurements were made with all gain controls at zero, plugs P5, P6, P7 and P8 in the unit and the line voltage was 115v a.c.

VOLTAGE CHART

Transistors	Pin 4	Capacitors	(-) Terminal
XQ1	-4.2V	C5	-15.1V
XQ2	-4.2V	C12	-34.3V
XQ3	-4.2V	C13	-38.7V
XQ4	-4.2V	C14	-42.9V
XQ5	-11.1V	C15	-26.9V
XQ6	-9.0V	C16	-15.9V
XQ7	-15.0V	C18	-34.3V
XQ8	-34.3V		
XQ9	0 V		

LIST OF PARTS

Symbol No.	*Stock No.*	*Drawing No.*	*Description*
AT1 to AT4	213300	758505-2	Resistor: variable, comp., 25,000 ohm ±10%, 2 w
AT5	213299	758505-1	Resistor: variable, comp., 10,000 ohm ±10%, 2 w
			CAPACITORS:
C1	106114	990130-1	electrolytic, 10 μf, 10 v
C2	213301	984655-26	electrolytic, 1.0 μf, 50 v
C3	79181	984655-16	electrolytic, 2.0 μf, 50 v
C4	213301	984655-26	electrolytic, 1.0 μf, 50 v
C5	213302	984655-27	electrolytic, 50 μf, 50 v
C6	106114	990130-1	electrolytic, 10 μf, 10 v
C7	213301	984655-26	electrolytic, 1.0 μf, 50 v
C8	106114	990130-1	electrolytic, 10 μf, 10 v
C9	213301	984655-26	electrolytic, 1.0 μf, 50 v
C10	106114	990130-1	electrolytic, 10 μf, 10 v
C11	213301	984655-26	electrolytic, 1.0 μf, 50 v
C12	213304	984655-29	electrolytic, 250 μf, 50 v
C13 to C16	213303	984655-28	electrolytic, 100 μf, 50 v
C17	210001	984655-30	electrolytic, 250 μf, 6 v
C18	213304	984655-29	electrolytic, 250 μf, 50 v
C19	106055	990130-10	electrolytic, 100 μf, -10 +250%, 15 v
C20	79181	984655-16	electrolytic, 2.0 μf, 50 v
CR1, CR2	210963		Rectifier: germanium (IN91)
E1 to E3	46907	181193-5	Post: binding
F1	211428	990157-102	Fuse: 1/16 amp., 3 AG
J1 to J4	213288	8926959-1	Connector: female, 3 cont.
J5 to J8	105783	882886-2	Connector: female, 8 cont.

Symbol No.	*Stock No.*	*Drawing No.*	*Description*
J9	98593	180882-1	Jack: female, single cont.
J10	54472	889482-3	Connector: AC
M1	213286	486639-1	Meter: VU
P1 to P4			Not used
P5 to P8	213298	8926985-501	Connector: male, 9 cont.
			RESISTORS: *Fixed, composition unless otherwise specified*
R1		735730-89	180,000 ohm ±10%, ½ w
R2		735730-77	18,000 ohm ±10%, ½ w
R3		735730-129	100 ohm ±5%, ½ w
R4		735730-132	75 ohm ±5%, ½ w
R5		735730-74	10,000 ohm ±10%, ½ w
R6		735730-210	130,000 ohm ±5%, ½ w
R7		735730-50	100 ohm ±10%, ½ w
R8		735730-72	6800 ohm ±10%, ½ w
R9		735730-68	3300 ohm ±10%, ½ w
R10		735730-212	160,000 ohm ±5%, ½ w
R11		735730-133	82 ohm ±5%, ½ w
R12		735730-70	4700 ohm ±10%, ½ w
R13		735730-73	8200 ohm ±10%, ½ w
R14		735730-68	3300 ohm ±10%, ½ w
R15		735730-130	62 ohm ±5%, ½ w
R16		735730-87	120,000 ohm ±10%, ½ w
R17		735730-130	62 ohm ±5%, ½ w
R18		735730-70	4700 ohm ±10%, ½ w
R19, R20		735730-125	39 ohm ±5%, ½ w
R21		735730-139	150 ohm ±5%, ½ w
R22		735730-70	4700 ohm ±10%, ½ w
R23		735730-89	180,000 ohm ±10%, ½ w
R24		735730-77	18,000 ohm ±10%, ½ w
R25		735730-129	100 ohm ±5%, ½ w
R26		735730-132	75 ohm ±5%, ½ w
R27		735730-74	10,000 ohm ±10%, ½ w
R28		735730-89	180,000 ohm ±10%, ½ w
R29		735730-77	18,000 ohm ±10%, ½ w
R30		735730-129	100 ohm ±5%, ½ w
R31		735730-132	75 ohm ±5%, ½ w
R32		735730-74	10,000 ohm ±10%, ½ w
R33		735730-89	180,000 ohm ±10%, ½ w
R34		735730-77	18,000 ohm ±10%, ½ w
R35		735730-129	100 ohm ±5%, ½ w
R36		735730-132	75 ohm ±5%, ½ w
R37		735730-74	10,000 ohm ±10%, ½ w
R38		735730-65	1800 ohm ±10%, ½ w
R39		735730-175	4300 ohm ±5%, ½ w
R40		735732-164	1600 ohm ±5%, 2 w
R41, R42		735731-137	120 ohm ±5%, 1 w
R43		735730-146	300 ohm ±5%, ½ w
R44		735730-203	68,000 ohm ±5%, ½ w
R45		735730-154	620 ohm ±5%, ½ w
R46		735730-180	7500 ohm ±5%, ½ w
R47		735730-70	4700 ohm ±10%, ½ w
R48		735730-61	820 ohm ±10%, ½ w
R49		735730-154	620 ohm ±5%, ½ w
R50		735730-158	910 ohm ±5%, ½ w
R51		735730-120	24 ohm ±5%, ½ w
R52	214949	722384-230	wire wound, 1.5 ohm ±5%, 1 w
R53		735730-72	6800 ohm ±10%, ½ w
R54		735730-74	10,000 ohm ±10%, ½ w
S1	213296	486640-1	Switch: rotary, wafer type, 3 sec., 4 pos.
S2	213297	486641-1	Switch: rotary, wafer type, 1 sec., 2 pos.
T1	213305	992043-1	Transformer: output
T2	213306	992086-1	Transformer: power
T3	213627	992074-1	Transformer: input
XF1	205914	8811104-1	Holder: fuse

Symbol No.	*Stock No.*	*Drawing No.*	*Description*
XQ1 to XQ9	215818	8888533-7	Socket: transistor
			MISCELLANEOUS:
		8926984-501	Cable: power, with male and female connectors
	32098	180707-3	Cable: power, with 2 contact male connectors
	32661	878243-1	Connector: female, 2 contact
	213290	8926966-1	Cap: battery tube
	213291	47764-1	Escutcheon: panel overlay
	203645	181654-1	Foot: rubber
	30925	875443-9	Handle: carrying case
	214647	8941269-1	Holder: battery
	17268	737820-505	Knob: microphone controls
	30075	712336-507	Knob: "off-on" and mic switch
	213293	8926999-501	Printed Circuit: amplifier component assembly
	213292	8926994-501	Printed Circuit: power supply filter
	213295	8926972-501	Spring: battery contact pressure
	213289	8924067-1	Tubing: battery holder

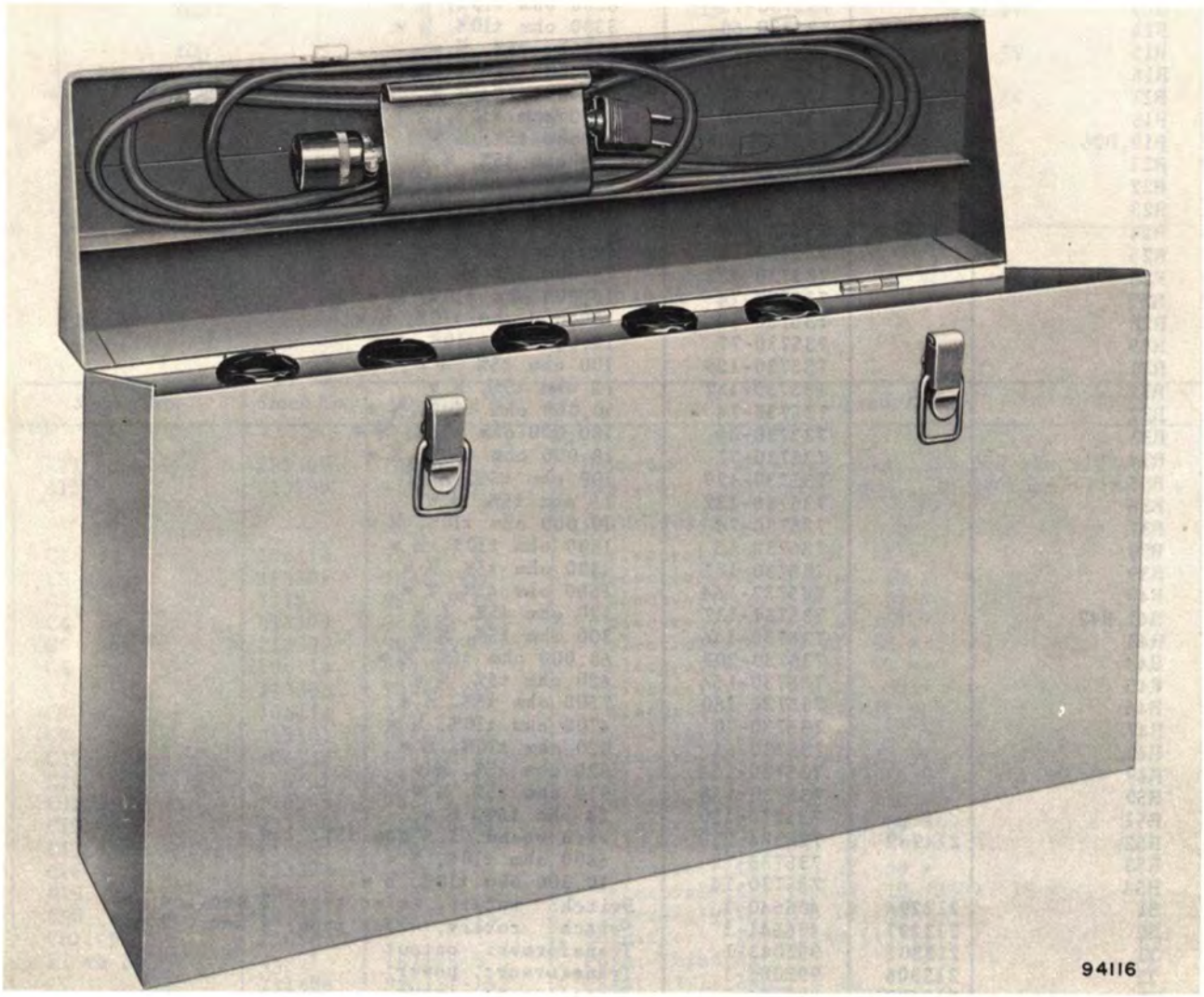


Figure 7 - BN-6B Remote Amplifier (Lid and Cable in Carrying Position)

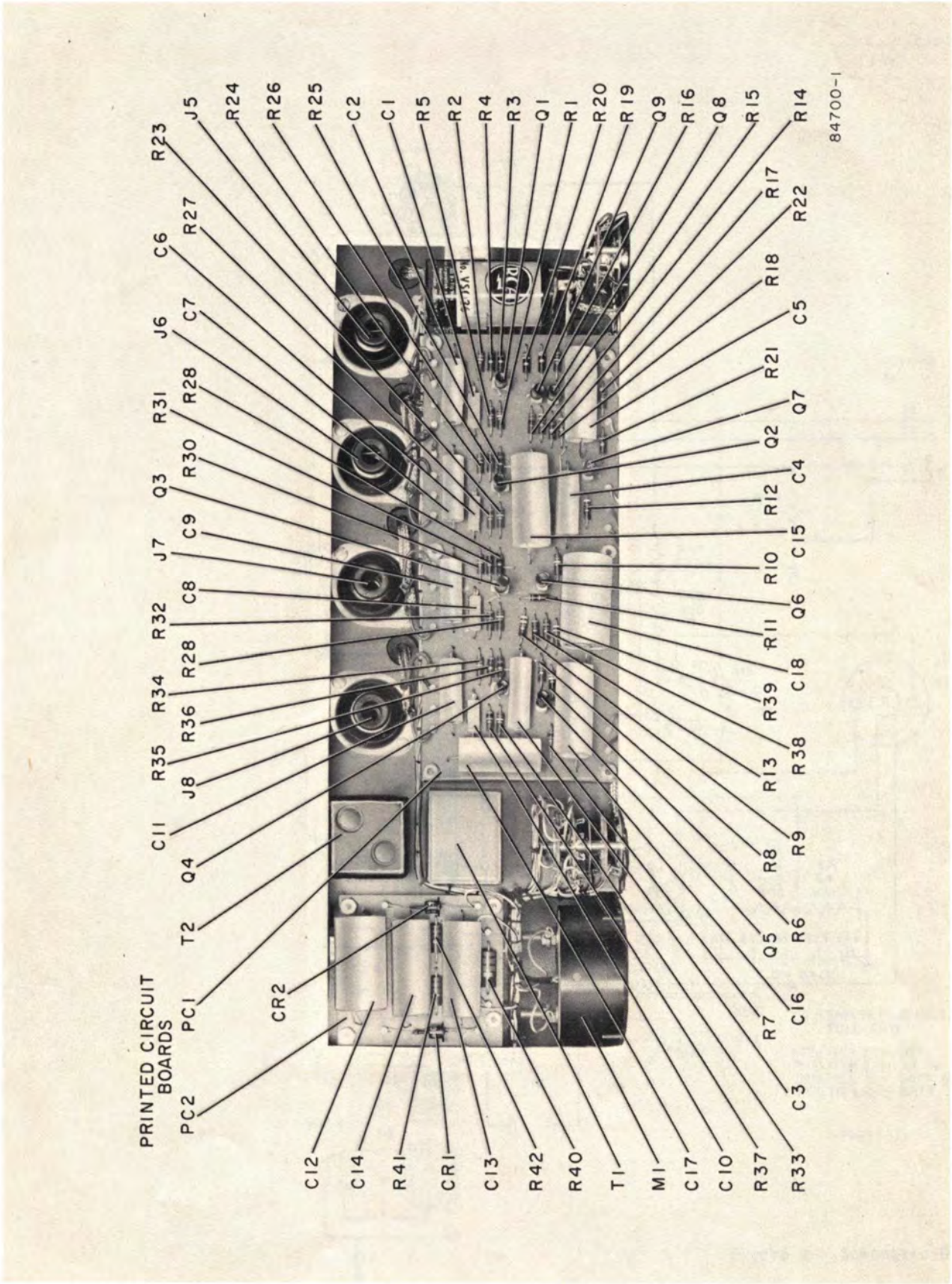
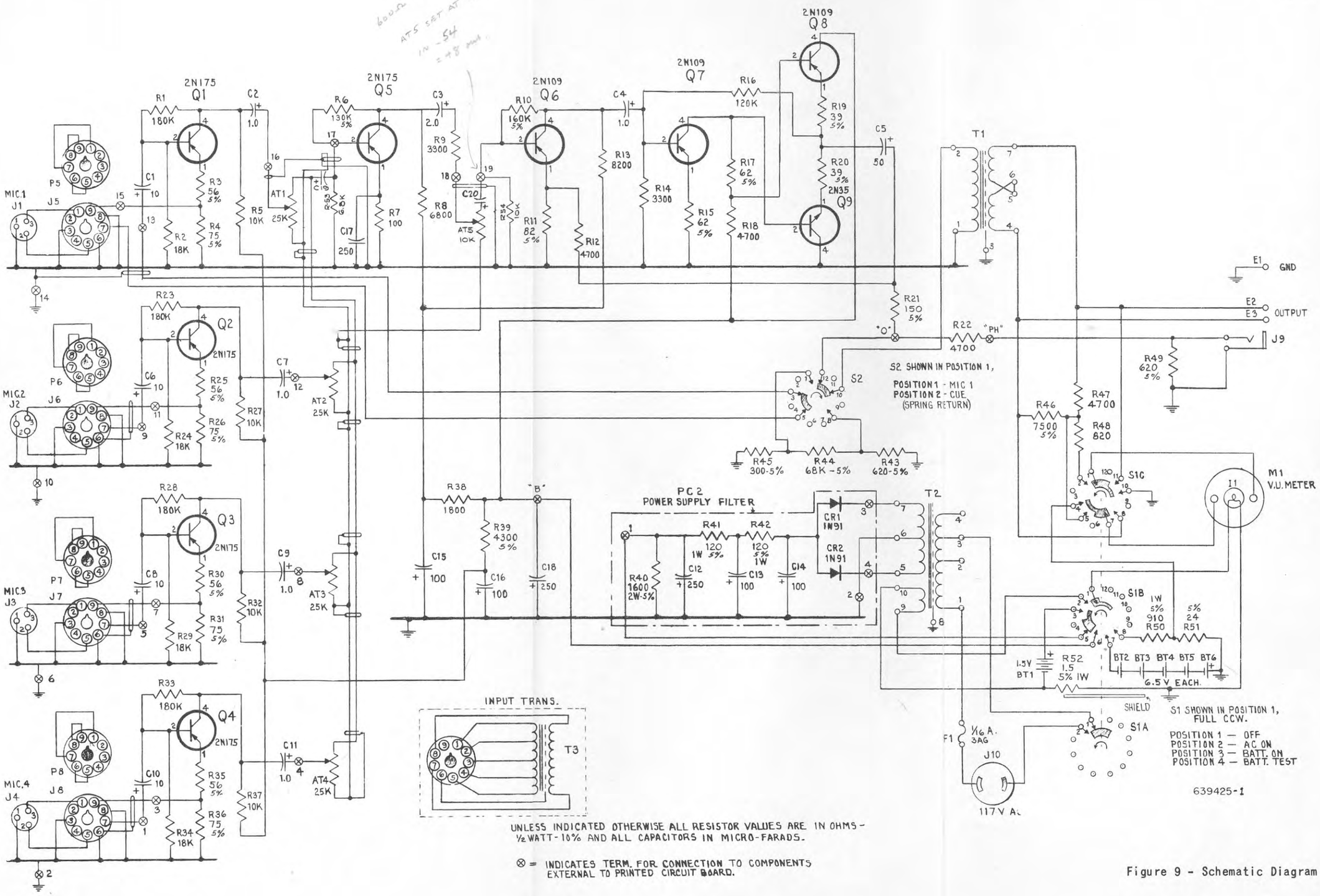


Figure 8 - Amplifier With Cover Removed Showing Printed Circuit Boards



UNLESS INDICATED OTHERWISE ALL RESISTOR VALUES ARE IN OHMS - ½ WATT - 10% AND ALL CAPACITORS IN MICRO-FARADS.

⊗ = INDICATES TERM. FOR CONNECTION TO COMPONENTS EXTERNAL TO PRINTED CIRCUIT BOARD.

639425-1

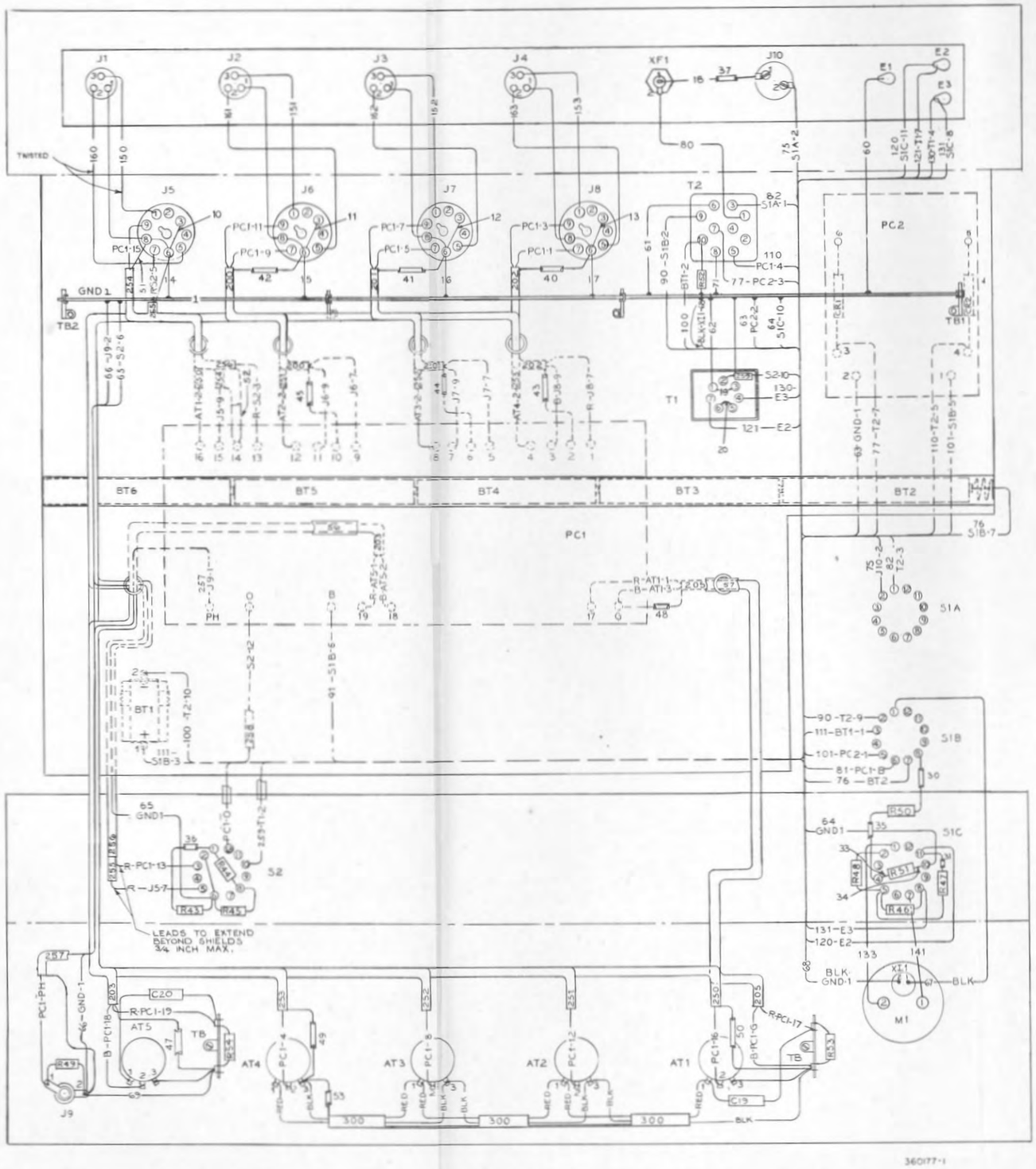
Figure 9 - Schematic Diagram

WIRE TABLE				8924016-501	
WIRE NO. INCL.			PS OR DWG NO.	ITEM NO	OPEN NOS
1	WIRE TINNED COPPER .081 DIA		2000105-13	78	
10-20	WIRE TINNED COPPER .032 DIA		2010168-20	79	
30-37	TUBING INSUL. BLK. .042 I.D.		2010008-3	80	
40-54	TUBING INSUL. BLK. .133 I.D.		2010008-11	81	
60-71	WIRE, WHT-BLACK		999101-90	82	
75-77		RED/BLK	-920	83	
80-82		RED/BLUE	-926	84	
90-91		RED/BRN	-921	85	
100-101		RED/YEL	-924	86	
110-111		RED	-92	87	
120-122		BLUE	-96	88	122
130-133		BLUE/BRN	-961	89	132
140-141		BLUE/RED	-962	90	140
150-153		GREEN	-90	91	
160-163	WIRE, WHT-GRN/BRN		999101-961	92	
200-205	SHIELDED PR. RED/BLK		2010768-12	93	204
250-259	SHIELDED SINGLE RED		2010768-21	94	
300	SHIELDED CABLE		486665510	77	
56-57	TUBING INSUL. BLK. .166 I.D.		2010008-13	96	

(1) FOR LIST OF PARTS FOR ABOVE WIRE TABLE SEE DWG. 8924016-501.

NOTES

1-SOLDER ALL ELECTRICAL CONNECTIONS USING ITEM 75.
2-CABLE AND THEN LACE WIRES. WIRES WHERE NECESSARY USING LACING CORD ITEM 76.



360177-1

Figure 10 - Connection Diagram

CBS RADIO

SHEET No. 7

AUDIO FACILITIES MEASUREMENTS

STATION..... Studio. BN-6B Date. 9/12/61

MEASURING DATA: Mic. channels measured as per Dwg. TD-80 Circuit #1, unless otherwise noted.
Line channels measured as per Dwg. TD-73A, Circuit #1, unless otherwise noted.
Power levels expressed in DBM (0 DBM = 1 milliwatt.)
Oscillator for measurements.....#.....
Distortion meter for meas.....#.....
Transmission set for meas.....#.....

CONDITIONS FOR MEASUREMENTS

Input to	Pre 1		2		3		4			
Output from										
Gain Setting (DB from Max)	14	16	14 - 16		15 - 16		14 - 16			
Source Imped	250 B		250 B		250 B		250 B			
Load Imped	600		600		600		600			
Input Level	-55	-44.8	-55	-45	-53	-45	-55	-45		
Output Level	+8	+18	+8	+7.8	+3	+7.8	+8			
Gain in DB										

DISTORTION MEASUREMENTS IN % RMS

CPS										
50	0.26	0.8								
100	0.23	1.0	.18	.8	.18	.7	.21	.68		
400	0.2	1.4								
1000	0.18	1.5	0.14	1.1	.15	1.2	.16	1.1		
5000	0.25	1.4								
7500	0.31	1.1	.3	.8	.1	.74	.33	.75		

NOISE LEVEL MEASUREMENTS IN DB BELOW OUTPUT LEVEL AT 400 CPS

CPS										
Unweighted	-64	-73	-62	-72	-61	-71	-57	-67		

RESPONSE-FREQ. MEASUREMENTS IN DB DEVIATION FROM 1000 CPS LEVEL

CPS										
50	-1.2	-1.1								
100	-.5	-.5	-.6	-.8	-.6	-.8	-.6	-.7		
200	-.2	-.2								
500	0	-.2								
1000	0	0	0	-.2	0	-.2	0	-.2		
2000	+.1	0								
5000	0	0								
10000	-.6	-.7	-.8	-10	-.8	-1.	-.8	-1.6		
15000	-2.	-2								

BN-6B VU Reads 3/4 db Low

MEASURED BY.....

Form T.O.-7-CBS 998-4/55

RADIO CORPORATION OF AMERICA

INDUSTRIAL ELECTRONIC PRODUCTS, CAMDEN, N. J.