



INSTRUCTIONS FOR

Preamplifier Power Supply

TYPE BX-1A

(MI-11305)

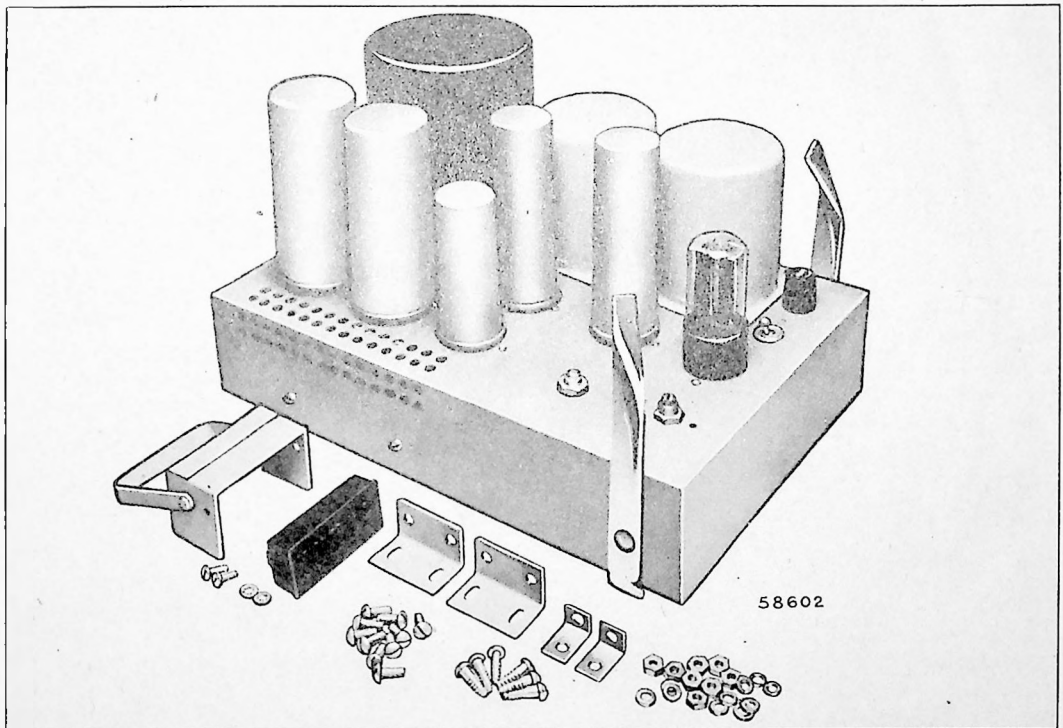


Figure 1—Type BX-1A Preamplifier Power Supply

TECHNICAL DATA

Power Supply Required

100 to 130 volts
50 to 60 cycles
65 watts

Radiofron

1 RCA 5Y3 GT/G or 1 RCA 5Y3/G

Fuse

A-C line, 1 ampere

Output Hum Level

Approximately—134 db when 0 db = 0.001 watt
below 50 ma d-c load at 250 volts dc

Power Output

D-C Supply
180 to 250 volts
Up to 50 ma

A-C Supply
6.3 volts
Up to 3.6 amperes

Dimensions and Weight

Length—12 $\frac{5}{8}$ inches
Width—8 $\frac{1}{16}$ inches
Height—7 inches
Weight—15 $\frac{1}{2}$ pounds

DESCRIPTION

The Type BX-1A MI-11305 Preamplifier Power Supply is designed to provide d-c plate and a-c heater power for amplifiers in which the hum level must be kept low. This power supply has a full-wave vacuum-tube rectifier circuit designed to operate from a source of 100 to 130 volts, 50 to 60 cycles. Manual voltage regulation and hum control are provided by controls mounted on the chassis. The unit uses plug-in type electrolytic capacitors. The chassis has a plug-in type of base construction. A mating receptacle is furnished with the power supply. A socket cover, handles, mounting brackets and associated hardware are also supplied with the MI-11305. All connections from the power supply are made to a 10-terminal plug at the rear of the chassis.

INSTALLATION

Assembly

Place all plug-in capacitors and the tube in the proper sockets. Each capacitor is marked with its capacity and voltage rating. Similar marking on the chassis near the sockets indicates the proper socket for each unit. The tube marking and chassis

lettering also correspond.

Mounting

The Type BX-1A Preamplifier Power Supply is designed to be mounted on a Type 36-B or Type BR-2A Panel-and-Shelf Assembly. To mount the power supply on a Type 36-B shelf, first attach the two mounting brackets to the rear of the chassis by means of four machine screws, hex nuts and lockwashers. Fasten the chassis to the shelf with four machine screws through the mounting-bracket holes and the holes in the rear of the shelf. Use lockwashers to prevent loosening of the screws.

To mount the chassis on a Type BR-2A shelf, fit the rear plug of the power-supply chassis into the socket on the shelf.

Attach the two handles to the chassis by means of the two pivots, C washers and spring washers. These handles should be mounted through mounting holes on the sides of the chassis near the front.

Terminal Connections

The rear plug has 10 terminals numbered from 3 through 12; numbers 5 and 6 for the a-c line, numbers 9 and 11 for the d-c plate power (number 11 is the positive connection), and numbers 7 and 8

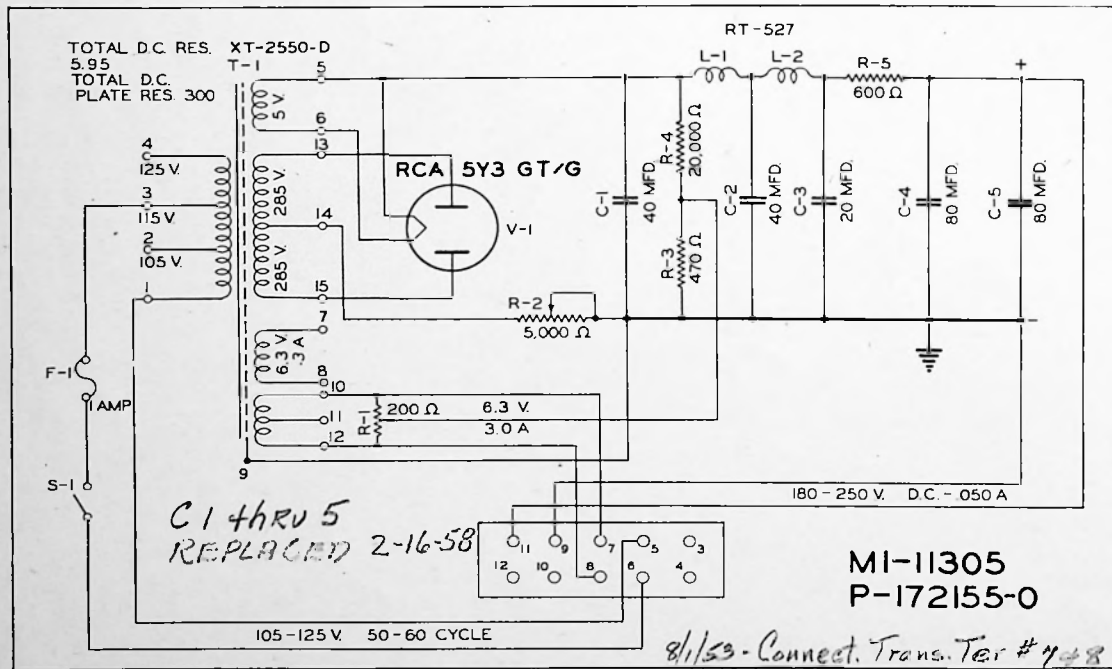


Figure 2—Type BX-1A Preamplifier Power Supply (schematic diagram)

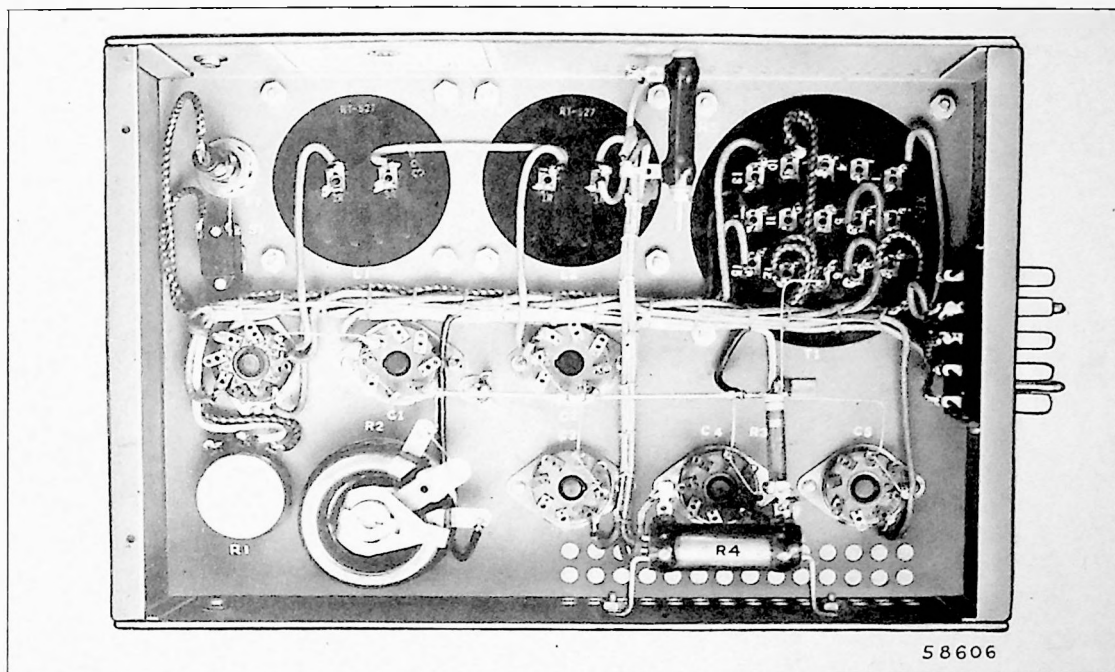


Figure 3—Location of Parts

for the a-c heater supply. Terminals numbered 3, 4, 10 and 12 are not connected. The connecting of transformer taps 7 and 8 for another a-c heater supply can be facilitated by wires from these transformer taps to two of the unused terminals. Connections to the external amplifier are then made from the corresponding terminal of the receptacle which fits over the plug. This receptacle contains solder-type terminals.

A-C Power Connections

The power transformer T-1 is connected at the factory for 115-volt operation, and should remain so connected, unless it is known that the a-c line voltage at the place of installation is always considerably above or below 115 volts. (All terminals referred to below are those on the transformer.)

a. When the a-c line voltage ranges from 100 to 110 volts during the operating period, transfer the T-1 primary lead from the 115-volt terminal (No. 3) to the 105-volt terminal (No. 2).

b. When the a-c line voltage ranges from 120 to 130 volts during the operating period, transfer the T-1 primary lead from the 115-volt terminal (No. 3) to the 125-volt terminal (No. 4).

c. A-C line voltages ranging above 130 volts or below 100 volts should not be used to supply the Type BX-1A unit.

Receptacle and Socket Cover

If the Type BX-1A is mounted in a location where it is necessary to use the receptacle furnished with the amplifier, fit this receptacle over the chassis plug. After connections have been made to external circuits, screw the socket cover to the receptacle, using two binder-head screws and lock-washers. This socket cover includes a bracket to facilitate removing the receptacle without pulling on a cable.

Recommended Associated Equipment

The Type BX-1A Preamplifier Power Supply provides d-c plate and a-c heater power for any of the following or equivalent equipment:

- a. 6 MI-11218-A, Type 85-C Preamplifiers.
- b. 10 MI-11207-A, Type 85-B Preamplifiers.
- c. 10 MI-11208, Type 85-X Isolation Amplifiers.

D-C Plate-Voltage Adjustment

Use the VOLTAGE REG. control (R-2) screw-

driver adjustment to vary the d-c plate supply from 180 to 250 volts. A d-c voltmeter placed across terminals number 11 (positive connection) and 9 should be used to obtain the desired voltage.

Hum Adjustment

Adjust the HUM control (R-1) to the position giving minimum hum in the output of amplifiers connected to the MI-11305 unit. This is a screw-driver adjustment.

REPLACEMENT PARTS

The following parts list is included to provide identification when ordering replacement parts. Order from *RCA Replacement Parts Department, Camden, New Jersey*, giving the *Stock Number* and *Description* of the parts wanted. Replacement parts supplied may be slightly different in form or size from the original parts but will be completely interchangeable with them.

LIST OF PARTS

Symbol	Description	Stock No.
C-1, -2	Capacitor, 40 mf, 450 volts	39457
C-3	Capacitor, 20 mf, 450 volts	39597
C-4, -5	Capacitor, 80 mf, 450 volts	39458
F-1	Fuse, 1 ampere	14133
L-1, -2	Reactor, filter, RT-527	17429
R-1	Resistor, variable, 200 ohms	18953
R-2	Resistor, variable, 5,000 ohms, 50 watts	18954
R-3	Resistor, 470 ohms, 1 watt	30681
R-4	Resistor, 20,000 ohms, 25 watts	44315
R-5	Resistor, 600 ohms, 10 watts	18952

Symbol	Description	Stock No.
S-1	Switch, power	48791
T-1	Transformer, power, XT-2550-D	44683
	Handle, left	52403
	Handle, right	52404
	Holder, fuse	48894
	Plug, male	48788
	Socket, capacitor	45368
	Socket, tube	31319
	Washer, C	8078
	Washer, spring, C	2917

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