



RCA SERVICE COMPANY, Inc.

MI-9333/33A

A Radio Corporation of America Subsidiary

PG-230 Series
PG-250 Series

CAMDEN • NEW JERSEY

CLASSIFICATION: TECHNICAL-PHOTOPHONE-AMPLIFIERS

DATE: JUNE 30, 1948

SUBJECT: MI-9333-33A PRE-AMPLIFIER

NUMBER: 2C3-22.04

Page 1 of 3

MI-9333 This is a rack mounted Pre-Amplifier, AC operated from external source. First made for use with the PG-230 and PG-250 series motion picture theatre sound systems in conjunction

with MI-9358/59 Power Amplifier and MI-9725/26 Volume Control.

MI-9333-A This Pre-Amplifier is the same as the MI-9333 except a volume control has been added.

SPECIFICATIONS

POWER SUPPLY- Power required from external source; (MI-9358/59) 6.3V. ac, 0.6 Amp. for heater. 255 V. dc, 4.2 MA +B for tube plate circuits. 255 V. dc, 20 MA +B for regulator circuit.

POWER SUPPLIED TO EXTERNAL DEVICES- 90 V. dc, for regulated PEC circuit.

INPUT- Source Impedance: High Impedance (space for 500 ohm input transformer if desired). Input Impedance; 100,000 ohms at 1000 cps.

OUTPUT- Output Impedance: 502 ohms at 400 cps. Load Impedance: 500 ohms.

GAIN- (1000 cycles) Grid input to 500 ohm load (no compensation) voltages supplied from MI-9358/59 amplifier: 64.5 db.

NOISE LEVEL- No compensation and voltages supplied from MI-9358/59 amplifier (.006-W. ref.) - 60.5 db.

TUBE COMPLEMENT- 1 RCA-1620 Pentode Input, 1 RCA-1620 Voltage Amplifier, 1 RCA-150-30 Voltage Regulator.

DIMENSIONS- Width 19", Height 7". Depth (front of Panel) 4" Weight (net) 11½ pounds.

TUBE SOCKET VOLTAGE

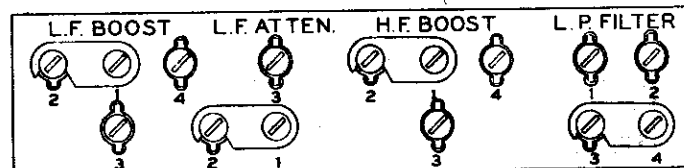
TUBE	PLATE CURRENT	PLATE TO CATHODE	CATHODE TO GROUND	HEATER
V-1 1620	0.47 MA	82 V. dc	1 V. dc	6.4 V. ac
V-2 1620	2.8 MA	192 V. dc	6.5 V. dc	6.4 V. ac
V-3 VR-150-30	11 MA	Regulated Voltage		115 V. dc

Voltages supplied from MI-9358/59

115 Volts AC Line 20,000 ohm-per-volt meter

FREQUENCY RESPONSE

FREQUENCY RESPONSE- Jumper Bars on front of terminal board may be connected as follows for various degrees of Frequency Response. Frequency Response curves are shown in Service Letters 2C8-53.25 (PG-230 Series) and 2C8-59.04 (PG-250 Series).



MI-9333 COMPENSATION TERMINAL BOARD WITH JUMPER BARS CONNECTED FOR NO COMPENSATION

HIGH FREQUENCY BOOST: (H.F. Boost)
Bar from 1-2 No boost.
Bar from 1-3 2.5 db boost.
Bar from 1-4 4 db boost.

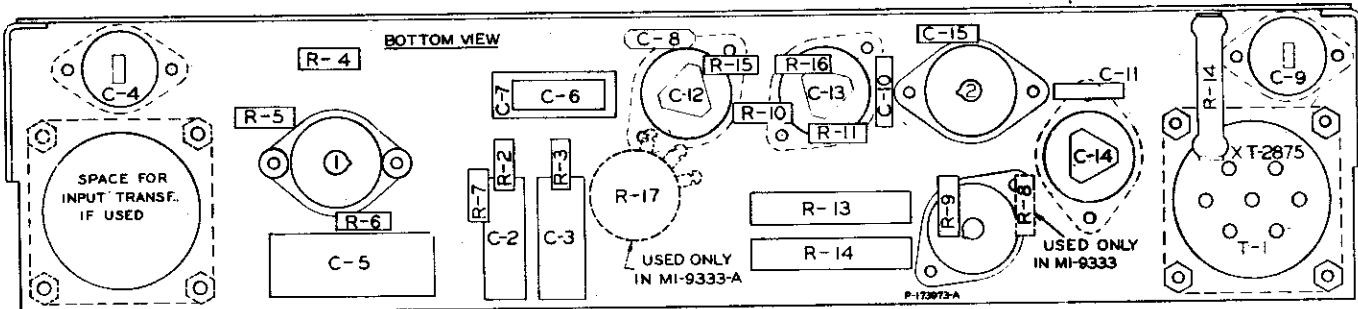
LOW FREQUENCY BOOST: (L.F. Boost)
Bar from 1-2 No compensation.
Bar from 1-3 2 db boost.
Bar from 1-4 4 db boost.

LOW PASS FILTER: (L.P. Filter)
Bar from 4-3 No filter
Bar from 1-3, 4-2 Filter in circuit with 5500 cycle cut-off.

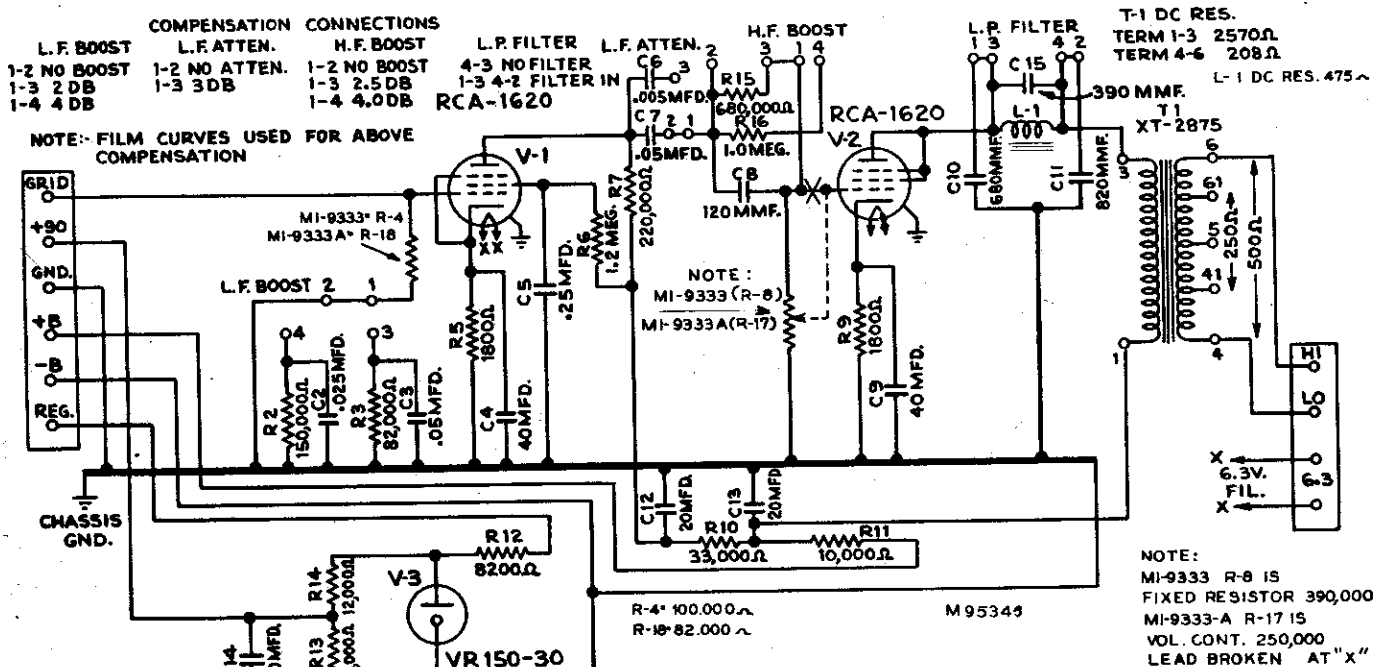
LOW FREQUENCY ATTENUATION: (L.F. Atten.)
Bar from 1-2 No Attenuation.
Bar from 1-3 3 db Attenuation

REPLACEMENT PARTS

DESCRIPTION	STOCK NO.	DESCRIPTION	STOCK NO.
Capacitor-.025 mfd. 400 V. (C-2)	70612	Resistor-390,000 ohms, ½ W. (R-8)	
Capacitor-.05 mfd. 400 V. (C-3, C-7)	70615	Resistor- 33,000 ohms, ½ W. (R-10)	
Capacitor-.40 mfd. 25 V. (C-4, C-9)	19807	Resistor- 10,000 ohms, 1 W. (R-11)	
Capacitor-.25 mfd. 400 V. (C-5)	70618	Resistor- Wire wound 8200 ohms, 10 W. (R-12)	45490
Capacitor-.005 mfd. 800 V. (C-6)	70627	Resistor- 18,000 ohms, 2 W. (R-13)	
Capacitor-120 mmf. 500 V. (C-8)	39630	Resistor- 12,000 ohms, 2 W. (R-14)	
Capacitor-680 mmf. 500 V. (C-10)	50338	Resistor-680,000 ohms, ½ W. (R-15)	
Capacitor-820 mmf. 500 V. (C-11)	47048	Resistor- 1 meg., ½ W. (R-16)	
Capacitor- 20 mfd. 450 V. (C-12, C-13, C-14)	32400	Volume Control- 250,000 ohms, (R-17) (MI-9333-A)	53880
Capacitor-390 mmf. 500 V. (C-15)	68542	Transformer- Output, XT-2875 (T-1)	18051
Reactor- 0.5 henries, 475 ohms (L-1)	50336	Socket- Tube, octal-V-1	28413
Resistor-150,000 ohms, ½ W. (R-2)		Socket- Tube, octal-V-2, V-3	31319
Resistor- 82,000 ohms, ½ W. (R-3, R-18)		Plate- Capacitor mounting (for C-4, C-9)	19820
Resistor-100,000 ohms, ½ W. (R-4)		Plate- Capacitor mounting (for C-12, 13, 14)	28452
Resistor-1,800 ohms, ½ W. (R-5, R-9)			
Resistor-1.2 meg., ½ W. (R-6)			
Resistor-220,000 ohms, ½ W. (R-7)			



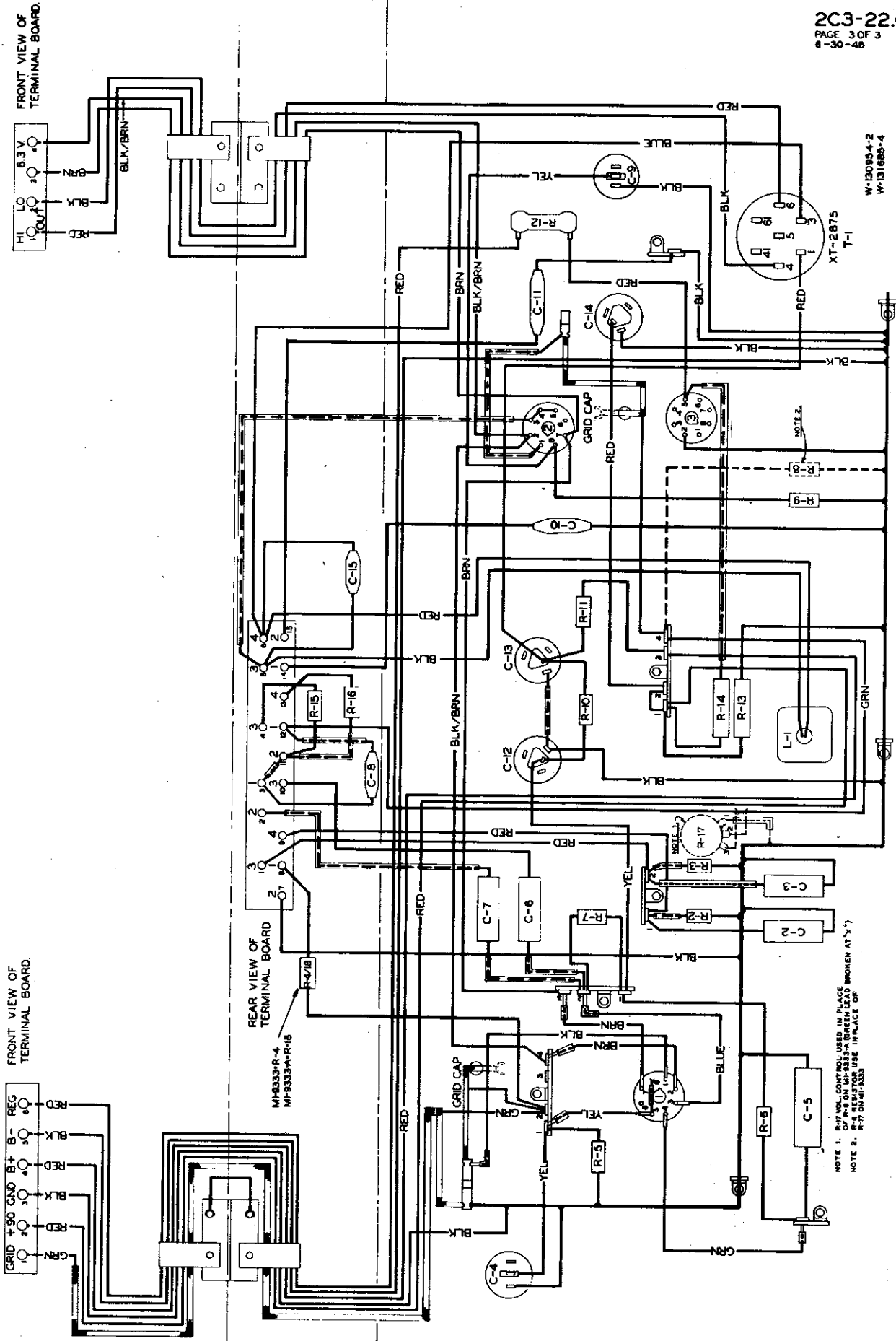
MI-9333/9333-A PARTS LAYOUT



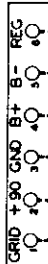
MI-9333 & 9333-A PRE-AMPLIFIER

SCHEMATIC DIAGRAM

W-130954-2
W-131685-4



FRONT VIEW OF
TERMINAL BOARD



REAR VIEW OF
TERMINAL BOARD



NOTE 1: R-17 AND C-17 ARE IN PLACE BROKEN AT Y?
NOTE 2: R-8 RESISTOR USE IN PLACE OF R-7 ON MI-9333

MI-9333 & 9333-A PRE AMPLIFIER WIRING DIAGRAM