

**INSTALLATION AND SERVICE DIVISION****RCA MANUFACTURING CO., INC.****CAMDEN, N. J.****CLASSIFICATION Technical - Photophone - Amplifiers****DATE Sept. 10, 1937****SUBJECT: MI-1223-A Amplifier and Monitor (PG-105)****NUMBER 2C3-4.1B****TO: A-5, B-1, B-2, B-3, C-7, D-7, E-7, F-7, G-1, G-2, G-3, G-4, H-7**

Supplementing 2C3-4.1 SECOND EDITION

**MI-1223-A AMPLIFIER (PG-105)****(For Low Capacity Cable Coupling to Photocell)***Technical Information*

Application .....	Theatre Sound Reproduction
Line voltage rating .....	105-125 volts
Line frequency .....	50-60 cycles
Power consumption (Max.) .....	165 watts
Input impedance (Photocell circuit) .....	82,000 ohms
(Special input) .....	2.2 megohms
Load impedances .....	4, 7.5 & 15 ohms
Power output (3.5 per cent distortion) .....	5 watts
Overall gain (Input V.A. to 15-ohm output) (Reference .0125 watts) .....	110 db
Output level (3.5% Harmonic distortion) (Reference .0125 watts) ...	26 db
Input level (Max. permissible) (Reference .0125 watts) .....	-40 db
(Min. for normal power output) (Reference .0125 watts) .....	-88 db
(Min. for usable power output) (Reference .0125 watts) .....	-85 db
Hum level (Across 15-ohm load) (Reference .0125 watts) .....	-12.6 db
Tube complement .....	1 RCA-6C6, 1 RCA-75, 3 RCA-42, 1 RCA-5Z3
Power supply to external units .....	100 volts at 100 ma to speaker field
	200 " " 100 ma " 2 " fields
	300 " " 100 ma " 3 " "

*NOTE: To convert zero reference level to .006 watts, add 3 db to values shown.*

*Mechanical Specifications*

Height .....	21-3/4 inches
Width .....	16-1/2 inches
Depth .....	7-7/16 inches
Weight .....	53-3/4 pounds
Finish .....	Gray Crackle
External connections .....	Plug & jack for input; Screw-type terminals for output and A.C.;
	Low-capacity cable input
Mounting .....	Cabinet mounted on wall

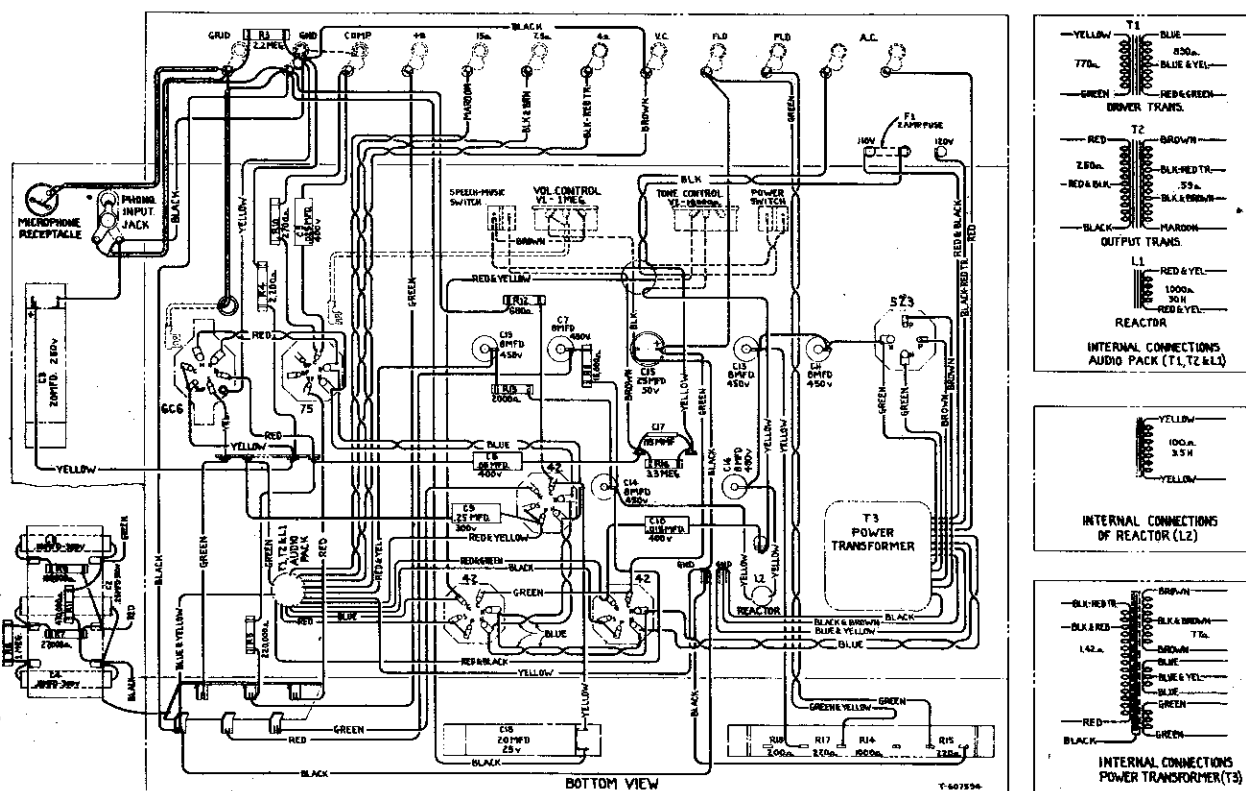
**Circuit Changes**

Several changes from the MI-1223 circuit have been made in the MI-1223-A amplifier.

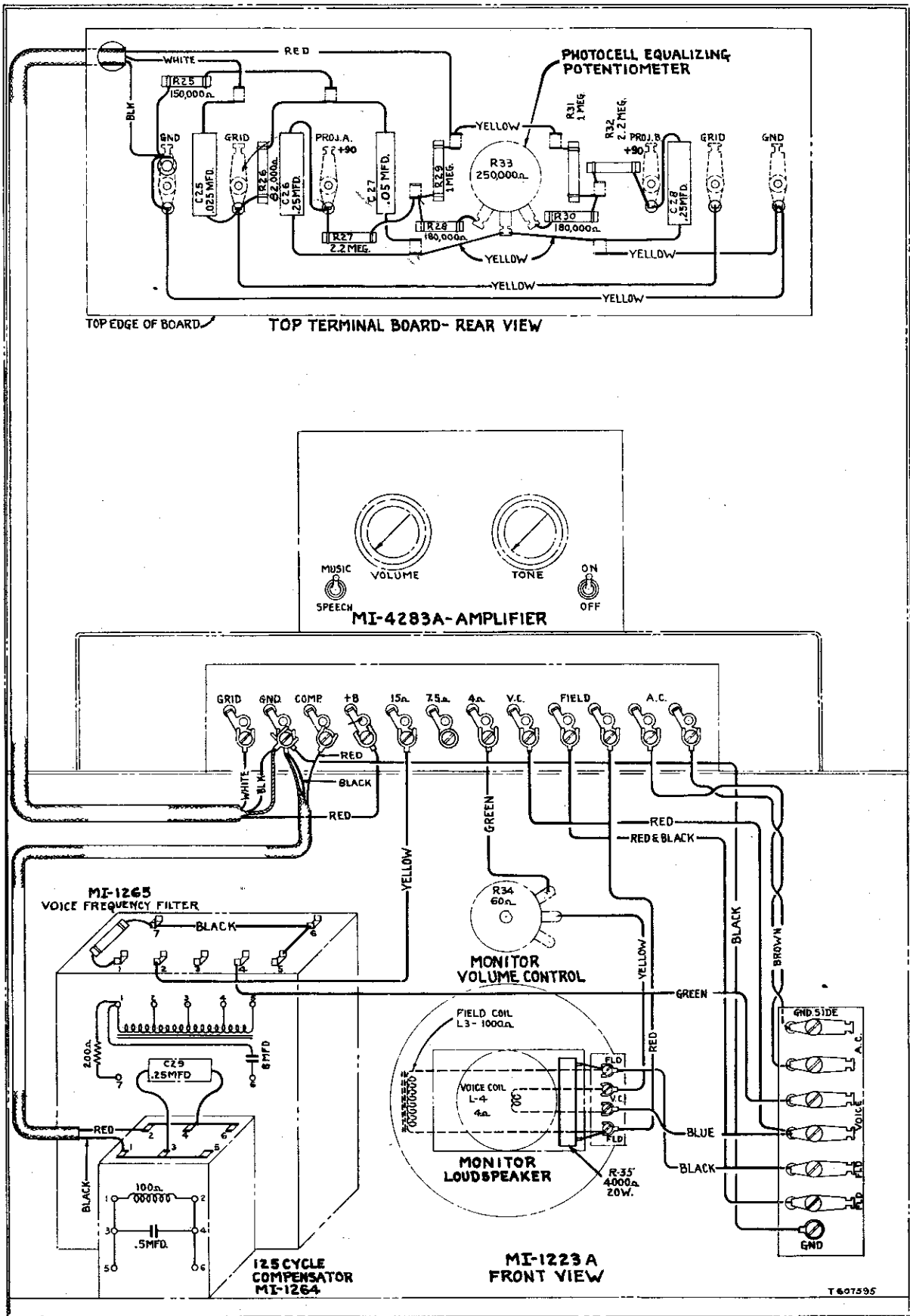
(a) R-26 is now 82,000 ohms (Stock No. 41365) instead of 56,000 ohms.

- (b) C-27 is now .05 mfd. (Stock No. 4886) instead of .015 mfd.
- (c) The MI-4283-C amplifier chassis is now used in place of the MI-4283-A unit. The principle difference between the two chassis is that the output terminal board on the MI-4283-C provides for four-wire stage loudspeaker connections instead of three wires as in the MI-4273-A.
- (d) The Monitor volume control, R-34, is changed to Stock No. 23994.
- (e) R-35, a 4,000 ohm, 20-watt resistor (Stock No. 23958) has been added across the Monitor speaker field winding.
- (f) The amplifier volume control, V-1, has been changed in type, however, it is supplied under the original Stock No. 23935.
- (g) R-28 and R-30 are now 180,000 ohms, listed under Stock No. 23527. The original value was 270,000 ohms in the MI-4223 amplifier.

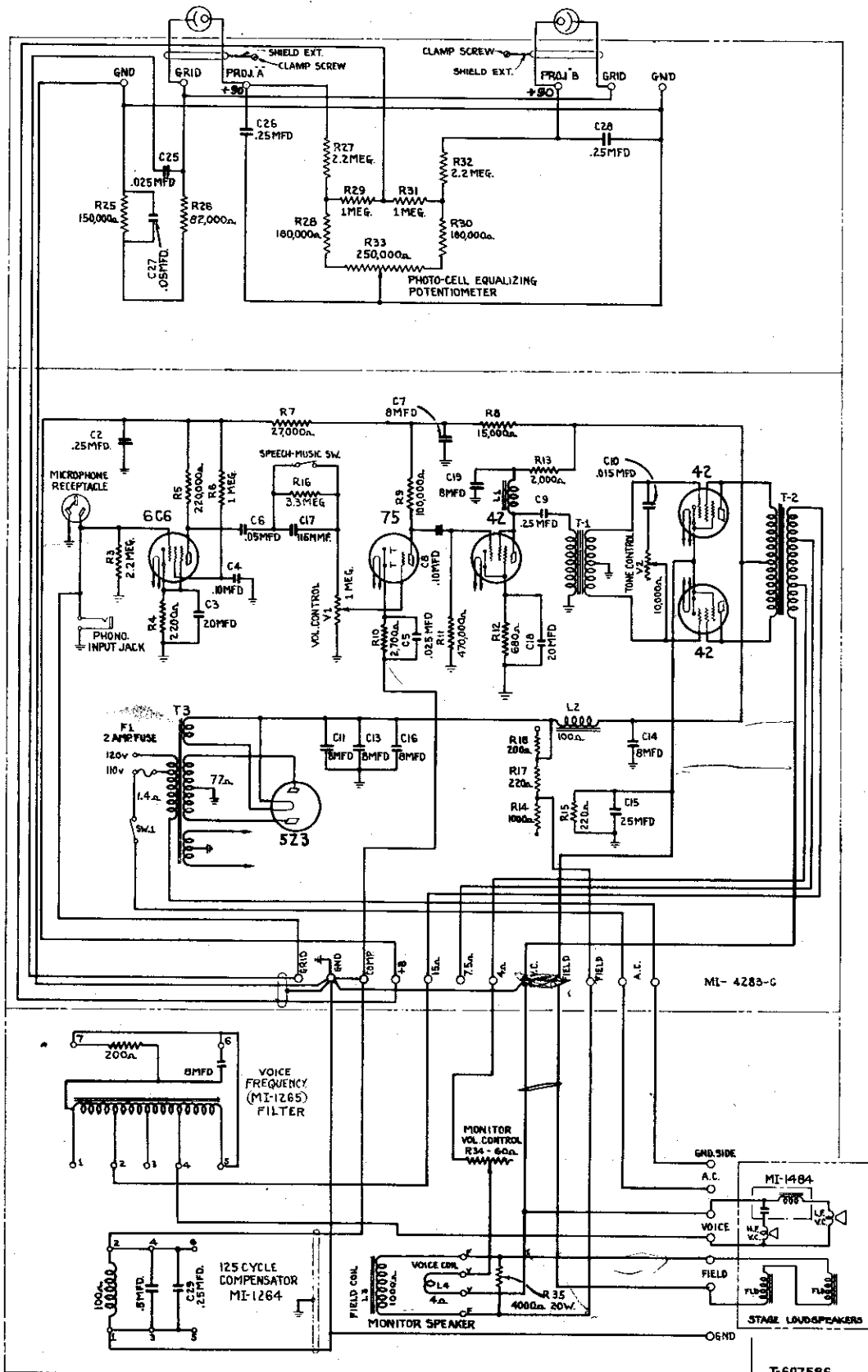
**NOTE:** With the exception of the changes listed herein, data such as replacement parts, socket voltage readings, filters, etc., given in 2C3-4.1, Second Edition, covers the MI-4223-A Amplifier.



T-607594 - Chassis Wiring - MI-4283-C



T-607595 - Cabinet Wiring - MI-1223-A



T-607586 - Overall Schematic - MI-1223-A