

DATE 6-28-61SH. 1 OF 8

COMPILED BY

TMC SPECIFICATION NO. S -585

REV.

B

TITLE:

GPT-750()2 TIME DELAY CIRCUIT

JOB

APPROVED

*Ron Kohn*

MODIFICATION KIT (TMC NO. KIT-108)

I. EQUIPMENT AFFECTED

A. GPT-750(all models)2 transmitters.

II. PURPOSE

To increase the reliability of the time delay and control relay circuits on power supply RTP-2 by providing an increased reset time for control relay K602.

III. MATERIALS SUPPLIED IN KITITEM NO.DESCRIPTION

1	One each, TMC No. RW-109-34, (Symbol No. (R625) Resistor, Fixed, Wirewound 10K, 10 Watts.
2	One each, TMC No. RW-109-37, (Symbol No. (R626) Resistor, Fixed, Wirewound, 20K, 10 Watts.
3	One each, TMC No. CE-103-5, (Symbol No. (C-613) Capacitor, Fixed, Electrolytic 20 uf @ 250WVDC.
4	One each, TMC No. TE-102-2 Standoff, Insulated.
5	Two each, TMC No. SCBP0632BN36 Screw, Machine.
6	Three each, TMC No. LWE06MRN Lockwasher, External.
7	Two each, TMC No. FW06HBN Flat Washer.
8	Four each, TMC No. WA-102-6 Washer, Fibre., Shoulder.
9	Three each, TMC No. NTH0632BN8 Nut, Hexagonal.
10	One each, TMC No. TE-104-2 Terminal, Lug.
11	One each, TMC No. SCBP0440BN3 Screw Machine.
12	One each, TMC No. LWE04MRN Lockwasher.
13	Three inches, TMC No. MWC22(7)U0 Cable, Insulated (BLACK).
14	Twenty inches, TMC No. MWC22(7)U7 Cable, Insulated (VIOLET).
15	Thirty inches, TMC No. MWC22(7)U92 Cable, Insulated (WHITE/RED).
16	Thirty inches, TMC No. MWC22(7)U2 Cable, Insulated (RED).

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MODIFICATION KIT (TMC NO. KIT-108)

## MATERIALS SUPPLIED IN KIT (CONTINUED)

<u>ITEM NO.</u>	<u>DESCRIPTION</u>
17	One each, TMC No. TE-120-2 Spade Lug (NOTE: Crimp item 17 to one end of 16).
18	One each, TMC No. NP-362-3 Nameplate
19	Two inches, TMC No. MWG22(7)U0 Cable, Insulated (BLACK).
20	One each, TMC No. FC-100-1 Clip, Component.
21	One each, TMC No. SCBPO632BNH Screw, Machine.
22	One each, TMC No. RL-116-DC-3C-120 Relay, Symbol No. K604
23	Thirty inches, TMC No. CD-101-1-MW Cord, Lacing
24	One each, No. 29.Drill

## IV. TOOLS REQUIRED (TO BE PROVIDED BY INSTALLING ACTIVITY)

1. Soldering iron or gun, pencil type tip.
2. Electric drill, 1/4 chuck minimum.
3. Screwdriver, 5 inch.
4. 1/4" spin tight, 1/4" open end wrench, or slip-joint pliers.
5. Solder.

## V. PROCEDURE

NOTE 1 - References to photographs, drawings and parts lists as per TMC technical manual for RADIO TRANSMITTER MODEL GPT-750()2 dated 15 OCTOBER 1959.

NOTE 2 - All modifications will be made on the relay deck of POWER SUPPLY RTP-2. REF: Pages E-78 (fig. E-18) and E-79 (fig. E-19).

### STEP

1. SHUT DOWN and REMOVE ALL A.C. POWER CONNECTION FROM THE TRANSMITTER.
2. Loosen the eight panel mounting screws holding the RTP-2 power supply section and slide the unit outward.

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MODIFICATION KIT (TMC NO. KIT-108)

## PROCEDURE CONTINUED

3. Remove K602, V608, V609, V610 and V611 from their sockets.
4. Remove the four mounting screws holding the relay deck to the main chassis and turn the relay deck over.
5. Drill the four mounting holes required. See page 5 of this specification.
6. Using the method of mounting R602 as a reference, mount R625 and R626.
7. Using the method of mounting C603 as a reference, mount C613. Solder the positive lead of C613 to the standoff. Solder the negative lead of the capacitor to ground lug. See pages 5 and 6 of this specification.
8. Unsolder the two orange and white wires from pin 4, K602, and resolder them to pin 5.
9. Solder the small black wire supplied with the kit between pins 4 and 1, K602.
10. Remove relay K603 from the chassis by removing the mounting nut.
11. Unsolder the wires from K603, maintaining lead length and without damaging insulation. Discard relay and used solder lug.
12. Connect the spade lug at the end of the red wire supplied with the kit to inside terminal 25, E603.
13. Feed wire through the grommet behind terminals 30 and 31 and following the chassis cabling bring the wire out through the grommet between R604 and R601.
14. Cut and solder the red wire to the upper terminal of R626 (20K).
15. Solder the violet wire to the upper terminal of R625 (10K) and extend through the grommet between R604 and R601.
16. Solder the red and white wire between the lower terminals of R625 (10K) and R626 (20K) and extend through grommet between R604 and R601.
17. Following the chassis cabling, feed the violet wire through the grommet between R606 and R608.

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APPROVED <i>Ron Kohn</i> MODIFICATION KIT (TMC NO. KIT-108)		

PROCEDURE CONTINUED

18. Following the chassis cabling, extend the red and white wire to the standoff connected to the positive side of C613 (20 uf), cut and solder.
19. Solder one end of the remaining red and white wire to the same point.
20. Following the chassis cabling, feed the red and white wire through the grommet between R606 and R608.
21. Cut and solder violet wire and red and white wire along with chassis cabling to new relay supplied with kit. Refer to page 7 of this specification.
22. Mount new Relay, item 22, & lace new wires to chassis cabling.
- 22.1 Change K603 Stamping to K604.
23. Replace K602, V608, V609, V610, V611 and remount relay deck to RTP-2 chassis.
24. Slide RTP-2 back into cabinet and tighten panel mounting screws.
- 24.1 Affix modification nameplate, item 18, conveniently near existing nameplate on Front Panel.
25. The power supply schematic for model RTP-2, fig. E-48 should be corrected as per page 8 of this specification.
26. The following change should be made to the parts list for the RTP-2, page E-69.
  - a. Change the operating voltage for K603 from 6.3 volts AC to 120 volts DC.
  - b. Delete K603, ~~RL-116-AC-3C-006.3.~~
27. The following items should be added to the parts list.

SYMBOL	DESCRIPTION	FUNCTION	TMC PART NO.
C613	Capacitor, Fixed, Electrolytic, 20 uf, 250 VDC	K604 time Constant Capacitor	CE-103-5
K604	Relay, Armature	Time Delay Lock-In	RL-116-DC-3C-120
R625	Resistor, Fixed, Wirewound 10K, 10 Watts	Voltage Divider	RW-109-34
R626	Resistor, Fixed, Wirewound 20K, 10 Watts	Voltage Divider	RW-109-37

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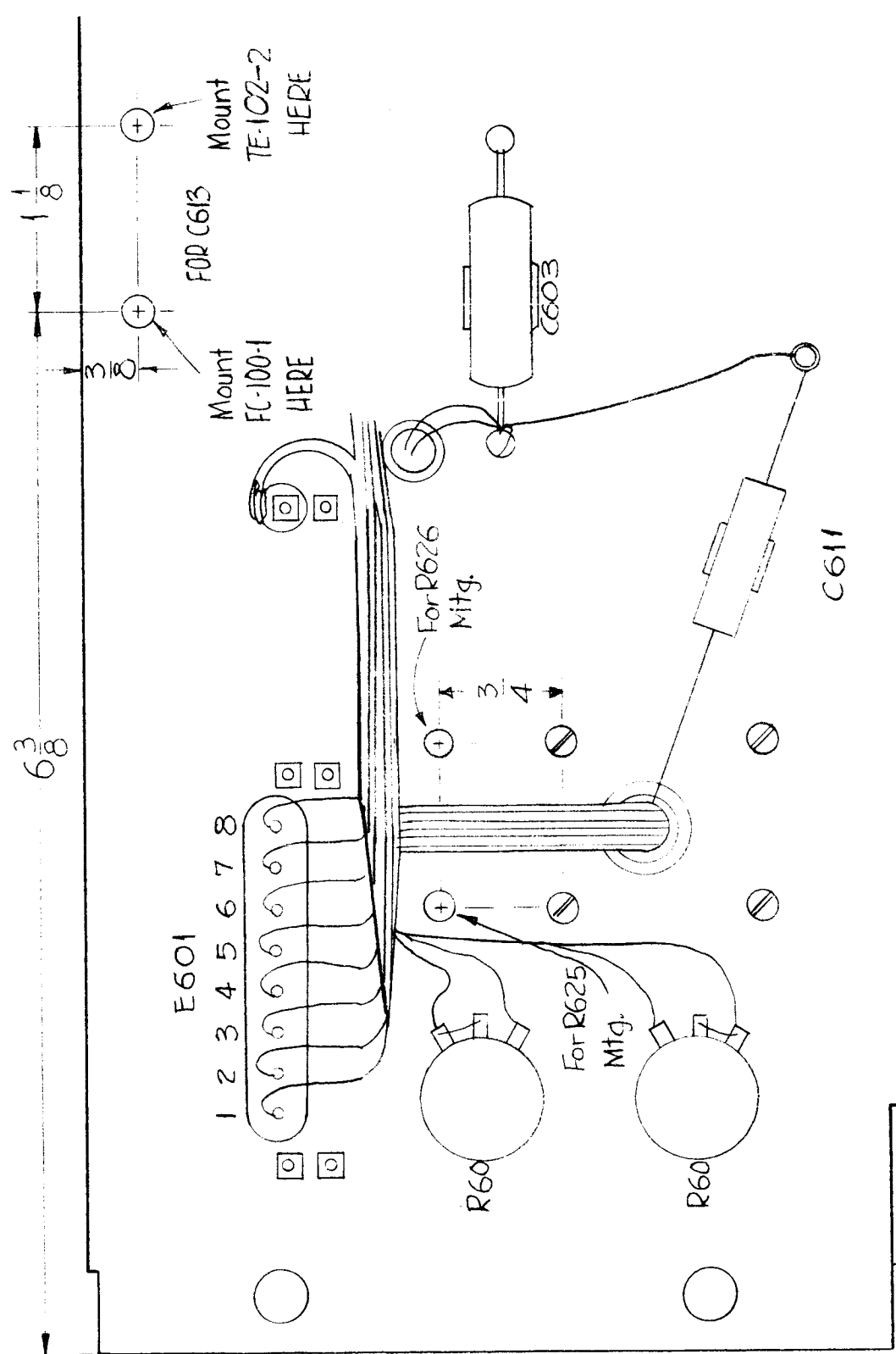
# TMC SPECIFICATION NO. S-585

REV. B

TITLE: KIT-108

JOB

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HOLE LOCATION, RELAY DECK  
MOUNT R625, R626 ON OPPOSITE SIDE.

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COMPILED BY

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REV. B

TITLE:

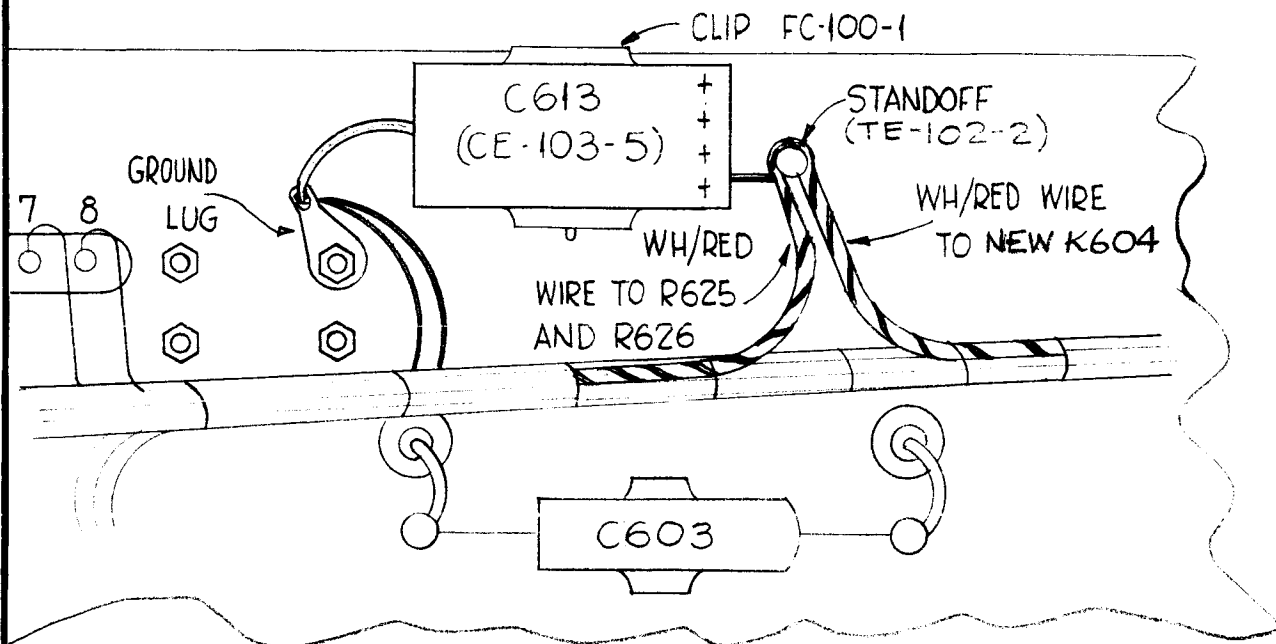
**KIT-108**

JOB

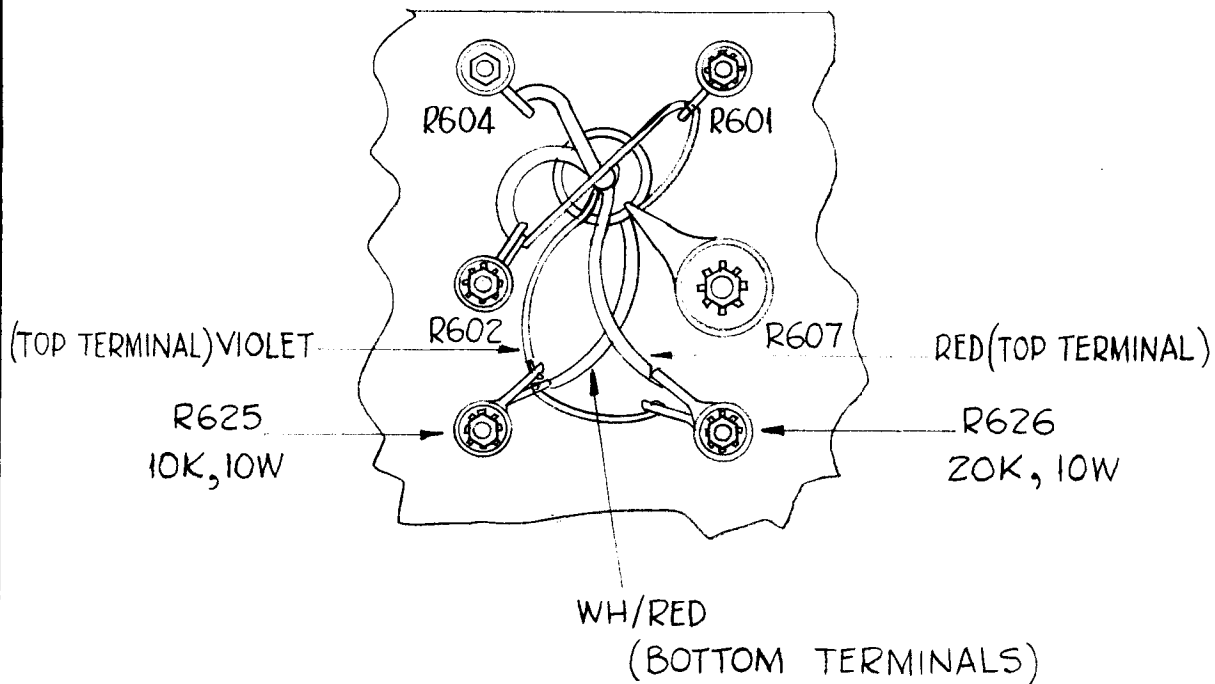
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*Ron Kite*

C613 SHOWN PROPERLY MOUNTED AND WIRED.



R625 AND R626 SHOWN PROPERLY MOUNTED AND WIRED.

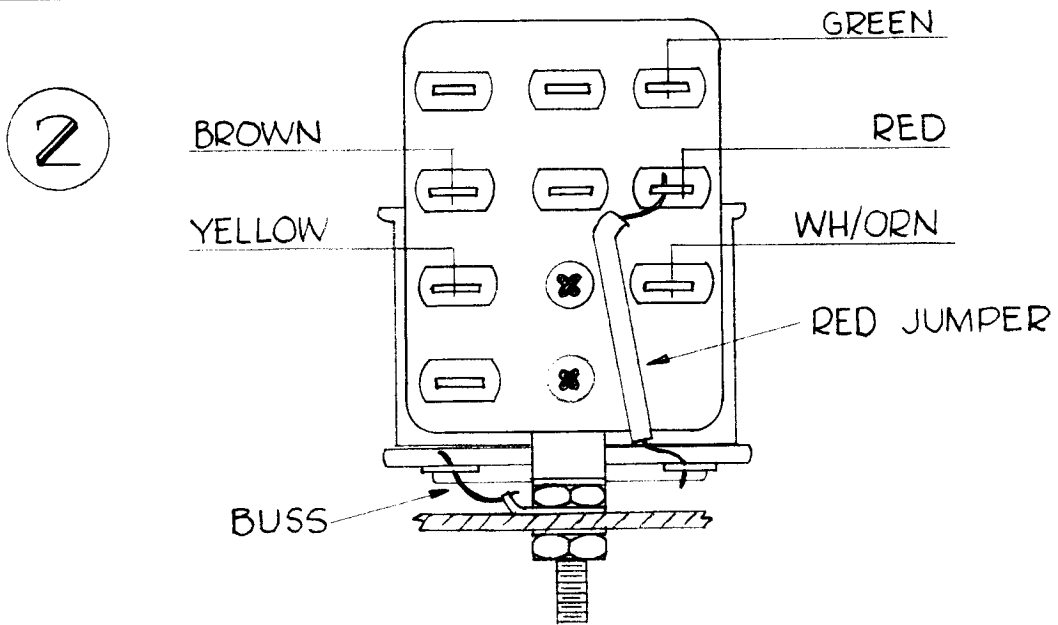
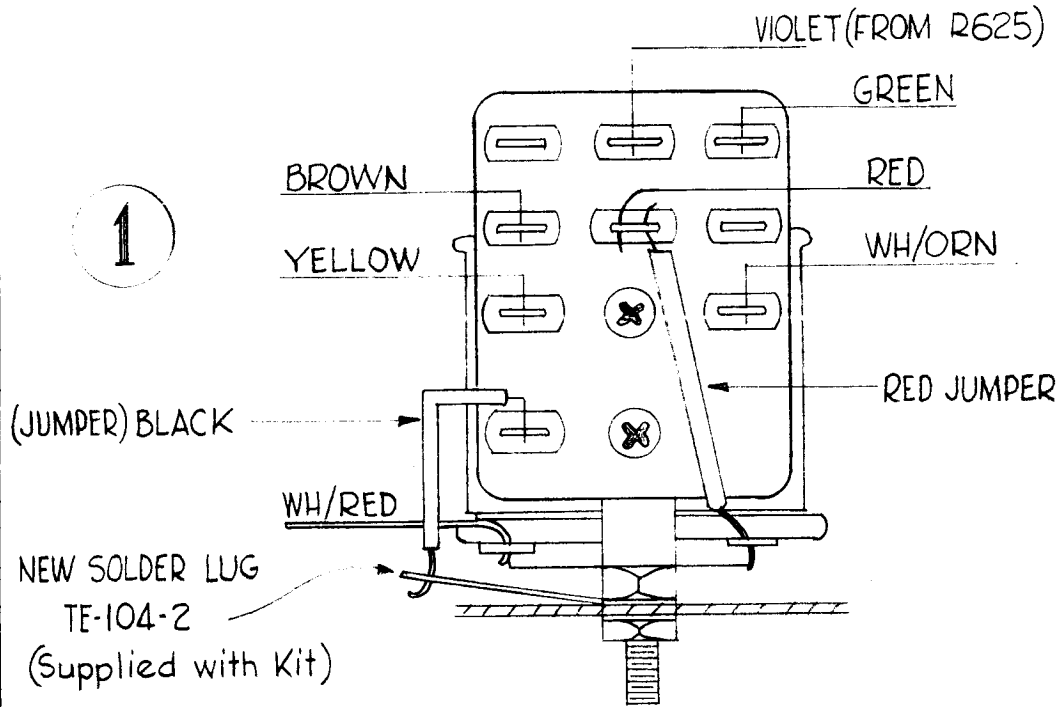


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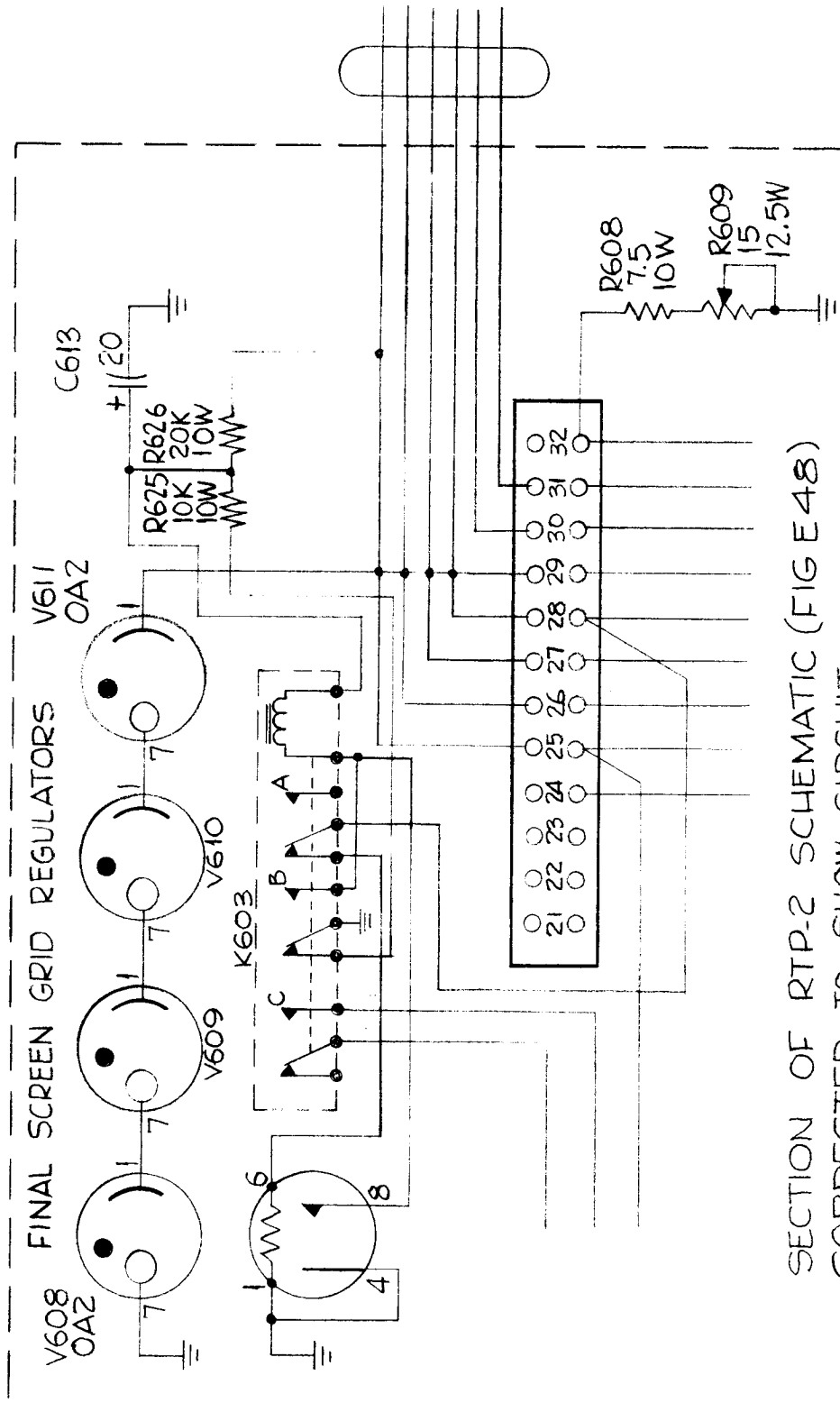
RELAY COLOR CODE

FIG. 1 SHOWS RELAY AFTER MODIFICATION. (K604)

FIG. 2 " " BEFORE " " (K603)



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SECTION OF RTP-2 SCHEMATIC (FIG E48)  
 CORRECTED TO SHOW CIRCUIT  
 MODIFIED USING KIT-108



**REVISION SHEET**    **THE TECHNICAL MATERIEL CORP.**  
**MAMARONECK**                      **NEW YORK**

SPEC. 585  
GPT-750( )2, RTP

**MODEL**    S-585                      **PROJECT NO**    \_\_\_\_\_

DATE	REV.	PAGE	EMN#	DESCRIPTION	CHK.	APP.
8-3-61	A	2	5397	On item No. 22, add Symbol No. K604.	✓	
8-3-61	A	4	5397	Chg. Step 22 from "Re-mount new K603" to "Mount new Relay, item 22"	✓	
		"	"	Add Step 22.1 "Change K603 Stamping to K604."	✓	
		"	"	Add Step 24.1, "Affix Nameplate".	✓	
		"	"	On Step 26 b., changed to read "Delete K603, RL-116-AC-3C-006.3"	✓	
		"	"	On Step 27, add "K604 Relay, Armature, Time Delay, Lock-In RL-116-DC-3C-120."	✓	
8-3-61	A	6	5397	On C613 Mounting Detail, chg. "TO NEW K604" from "TO K603".	✓	
8-3-61	A	7	5397	On Figure 1 note, add (K604), on Figure 2 note, add (K603).	✓	
11/2/66	B	1,2	17188	Revised per EMN		all