

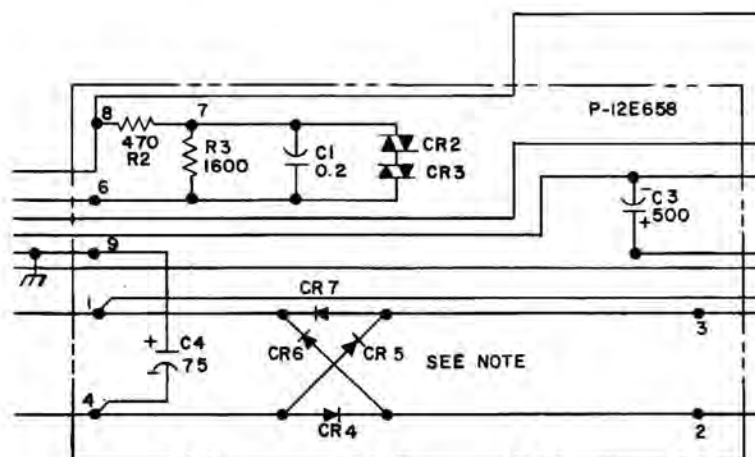
## SPEAKERPHONE SYSTEMS— 3 TYPE CONTROL UNITS AND TRANSMITTER UNITS CONNECTIONS

### I. GENERAL

1.01 This section shows connections between components in the 3-type speakerphone system.

1.02 This section is being reissued to:

- Add the 55B control unit.
- Add the 666B, 669A, 670A and 671A transmitter.



NOTE: 55A CONTROL UNITS MANUFACTURED BETWEEN APRIL AND OCTOBER OF 1962 ARE PRONE TO NOISE PROBLEMS. THESE CONTROL UNITS WERE WIRED ACCORDING TO FIG. 1A. THESE UNITS SHOULD BE REPLACED WITH CONTROL UNITS WIRED PER FIG. 1. DO NOT MODIFY CONTROL UNIT IN THE FIELD.

Fig. 1A - Modification of P-12E658 Printed Wiring Board

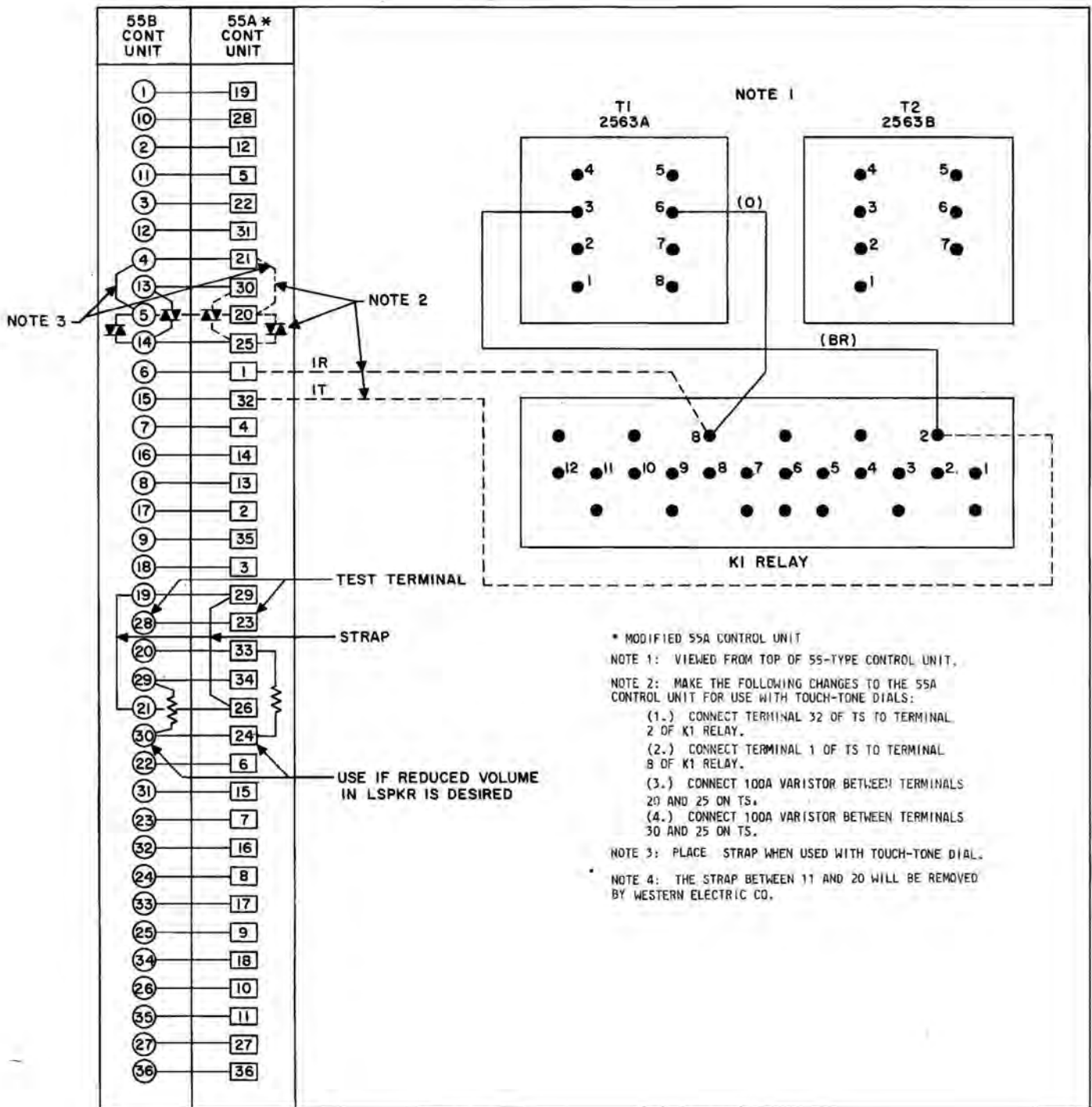
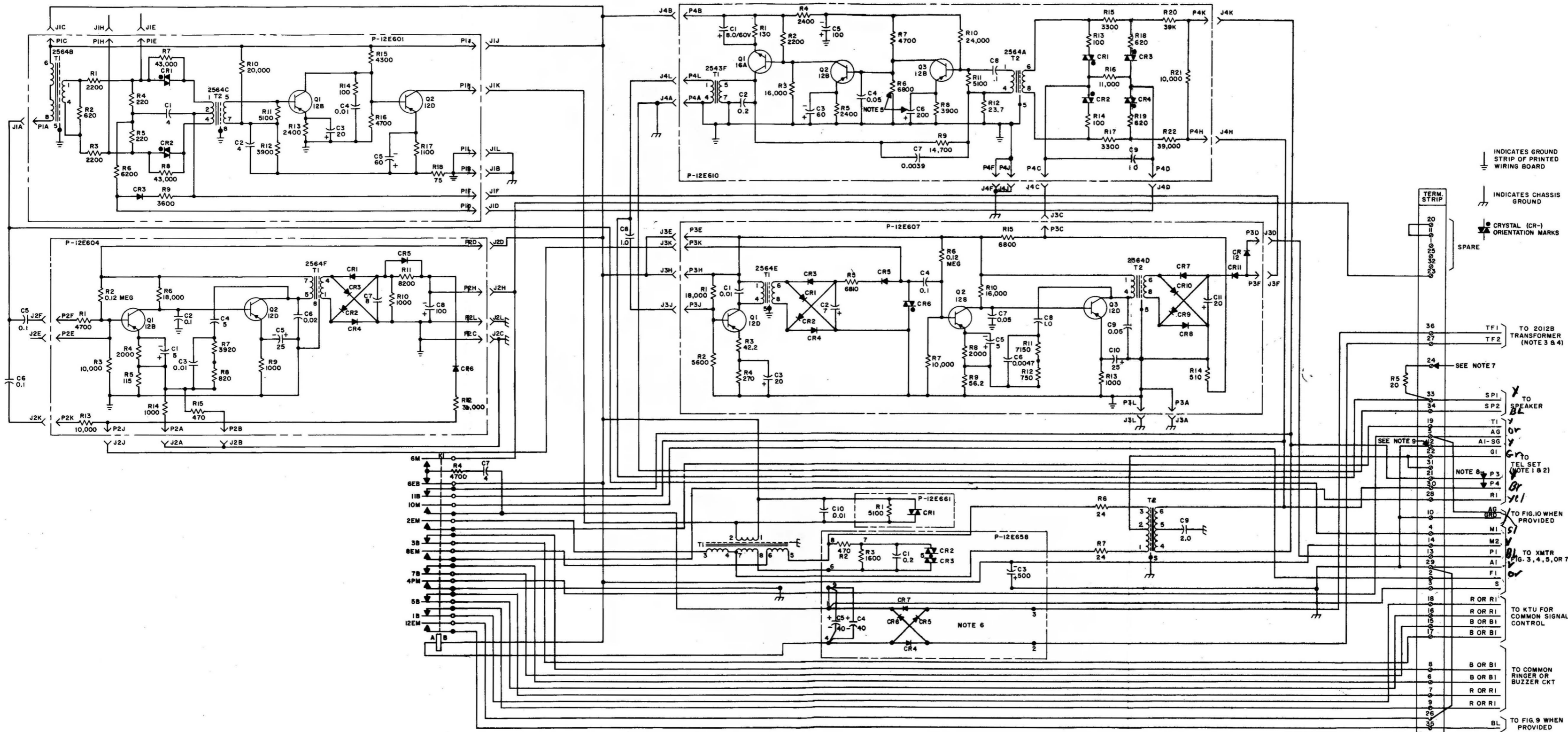
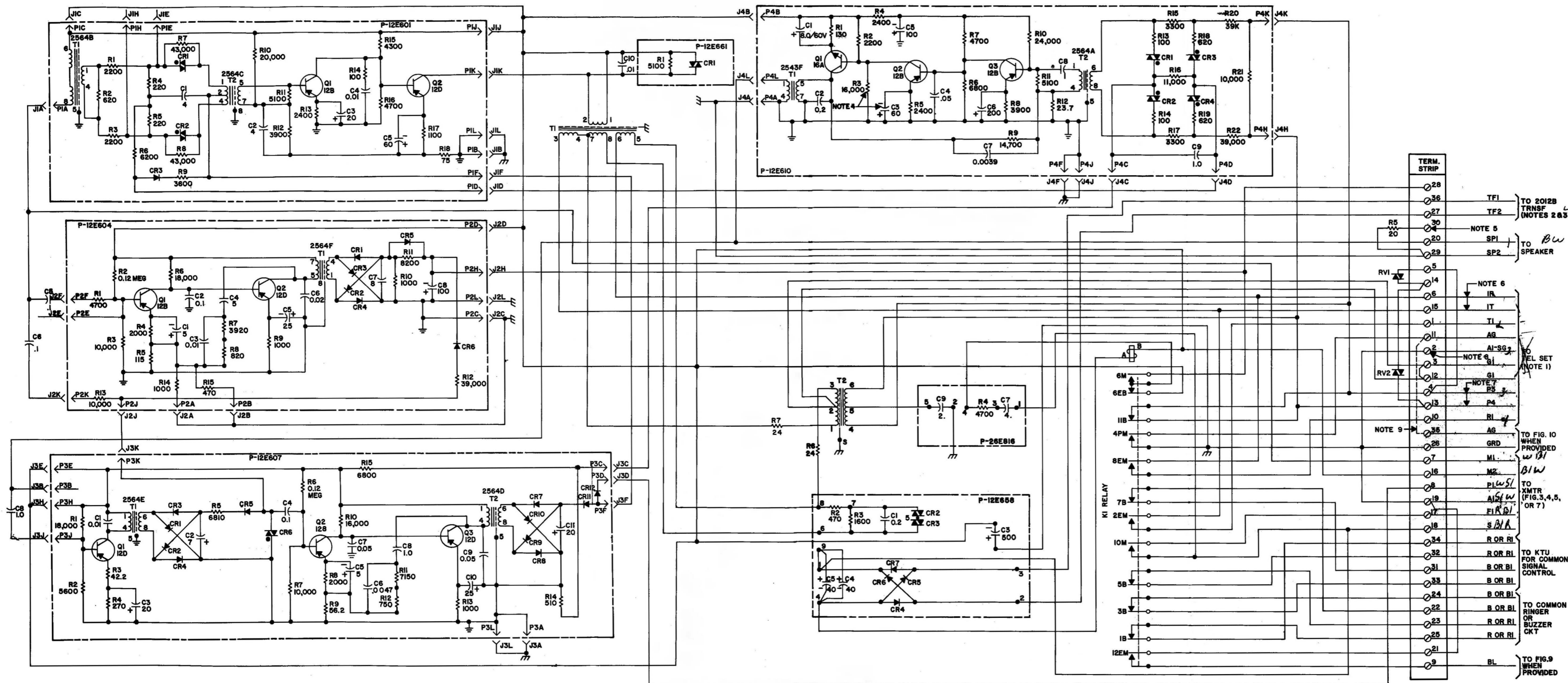


Fig. 1B - Modification of 55A Control Unit for Use with TOUCH-TONE Dial Telephone Sets



- NOTE 1: FOR TELEPHONE SET CONNECTIONS, REFER TO APPROPRIATE SECTION.
- NOTE 2: TO MODIFY THE 55A CONTROL UNIT TO WORK WITH TOUCH-TONE DIAL TELEPHONE SETS, SEE FIG. 1B.
- NOTE 3: DUE TO THE LOWER VOLTAGE RATING, THE 2012A TRANSFORMER SHOULD NOT BE USED TO POWER THE 55A CONTROL UNIT.
- NOTE 4: DO NOT USE ANY GROUNDED POWER SUPPLY TO POWER THE 55A CONTROL UNIT, SUCH AS THE 18V AC TAP ON THE 101 TYPE POWER SUPPLY. USE OF A GROUNDED POWER SUPPLY WILL AFFECT OPERATION OF THE UNIT.
- NOTE 5: RESISTANCE VALUES ARE IN OHMS, AND CAPACITANCE VALUE ARE IN MICROFARADS, UNLESS OTHERWISE NOTED.
- NOTE 6: 55A CONTROL UNITS MANUFACTURED BETWEEN APRIL AND OCTOBER OF 1962 ARE PRONE TO NOISE PROBLEMS. THESE CONTROL UNITS WERE WIRED ACCORDING TO FIG. 1A. THESE UNITS SHOULD BE REPLACED WITH CONTROL UNITS WIRED AS PER FIG. 1. DO NOT MODIFY CONTROL UNIT IN THE FIELD.
- NOTE 7: IF REDUCED VOLUME FROM THE LOUSPEAKER IS DESIRED, CONNECT SP1 LEAD TO TERMINAL 24.
- NOTE 8: USE FOR DIAL CLICK SUPPRESSION WITH ROTARY DIAL TELEPHONE SETS THAT ARE DIALED FROM AN "ON HOOK" CONDITION.
- NOTE 9: CONNECT LOCAL GROUND.

Fig. 1 - 55A Control Unit



- NOTE 1: FOR TELEPHONE CONNECTIONS, REFER TO APPROPRIATE SECTION.
- NOTE 2: DUE TO THE LOWER VOLTAGE RATING, THE 2012A TRANSFORMER SHOULD NOT BE USED TO POWER THE 55A CONTROL UNIT.
- NOTE 3: DO NOT USE ANY GROUNDED POWER SUPPLY TO POWER THE 55A CONTROL UNIT, SUCH AS THE 18V AC TAP ON THE 101-TYPE POWER SUPPLY. USE OF A GROUNDED POWER SUPPLY WILL AFFECT OPERATION OF THE UNIT.
- NOTE 4: RESISTANCE VALUES ARE IN OHMS, AND CAPACITANCE VALUES ARE IN MICROFARADS, UNLESS OTHERWISE NOTED.
- NOTE 5: IF REDUCED VOLUME IS DESIRED FROM THE LOUD-SPEAKER, CONNECT SP2 LEAD TO TERMINAL 30.
- NOTE 6: CONNECT TO TOUCH-TONE DIAL TELEPHONE SETS THAT ARE DIALED IN AN "ON HOOK" CONDITION.
- NOTE 7: USE FOR DIAL CLICK SUPPRESSION WITH ROTARY DIAL TELEPHONE SETS THAT ARE DIALED FROM AN "ON HOOK" CONDITION.
- NOTE 8: CONNECT LOCAL GROUND.
- NOTE 9: STRAP 11 TO 35 FOR CONTROL OF AUX RELAY CIRCUIT FOR USE WITH 750A OR 755A PBX.

INDICATES GROUND STRIP OF PRINTED CIRCUIT BOARD.  
 INDICATES CHASSIS GROUND.  
 CRYSTAL (CR-) ORIENTATION MARKS



Fig. 2 - 55A Control Unit

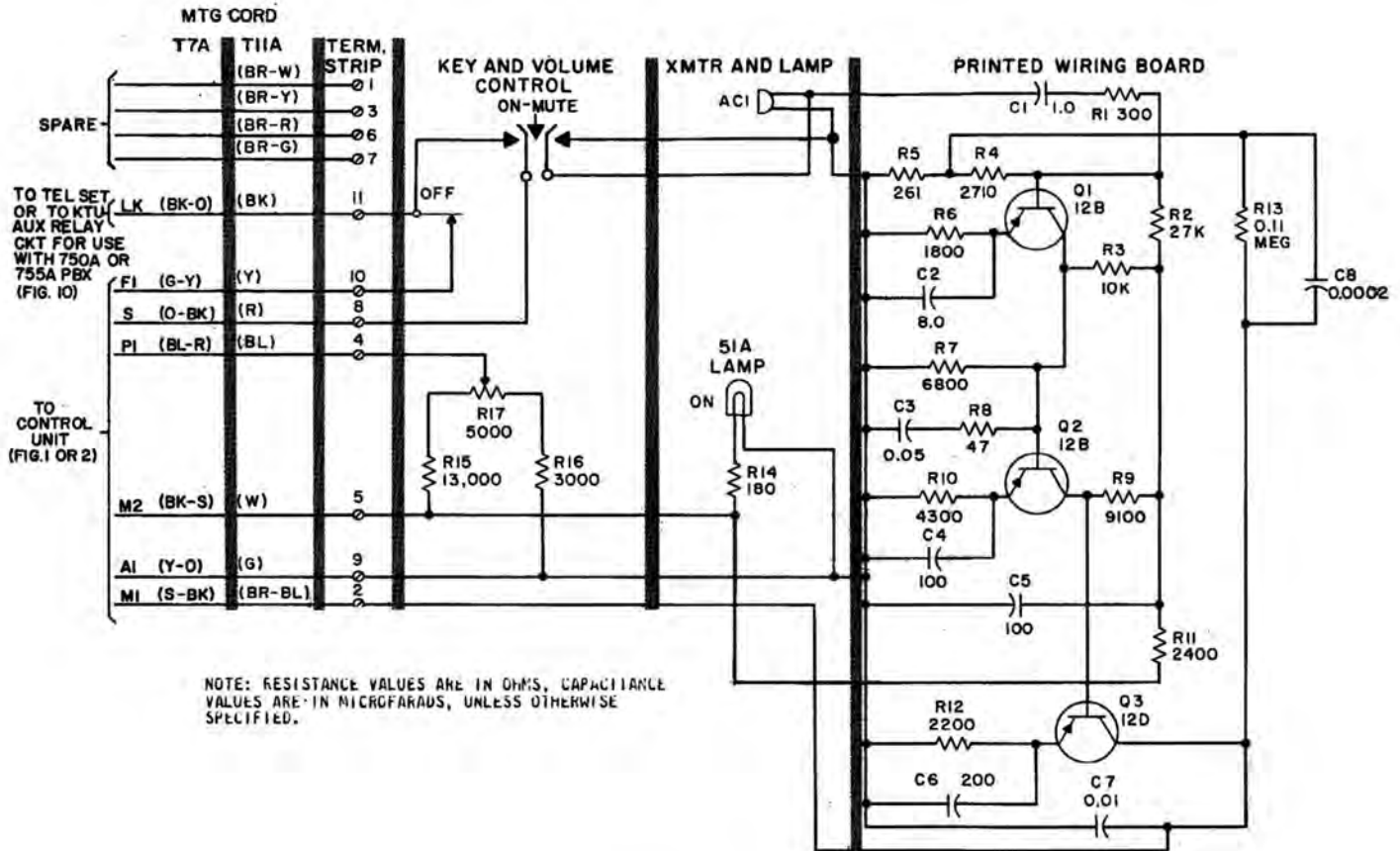
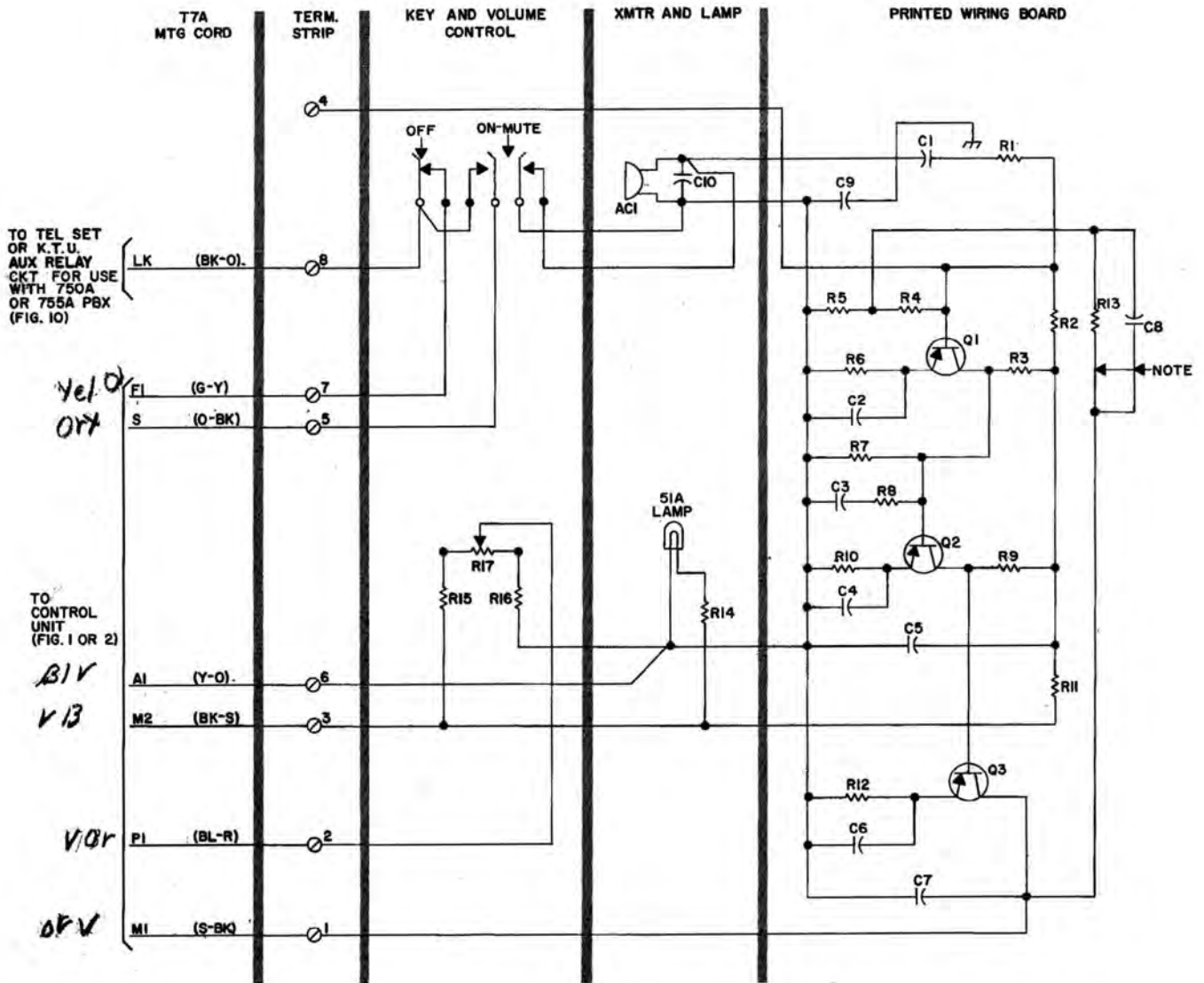


Fig. 3 - 666A Transmitter



NOTE: RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS, UNLESS OTHERWISE SPECIFIED.

Fig. 4 - 666B Transmitter

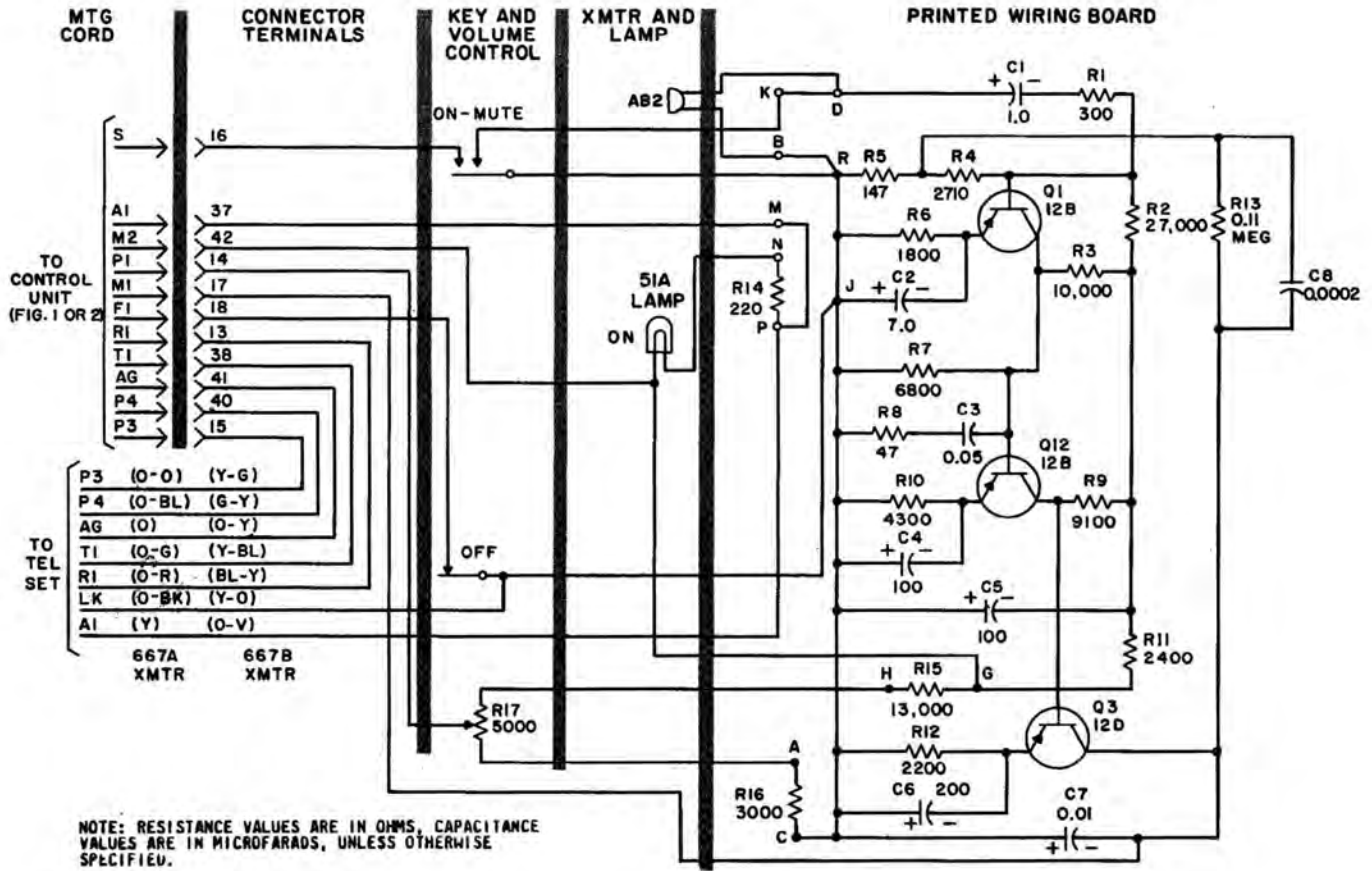
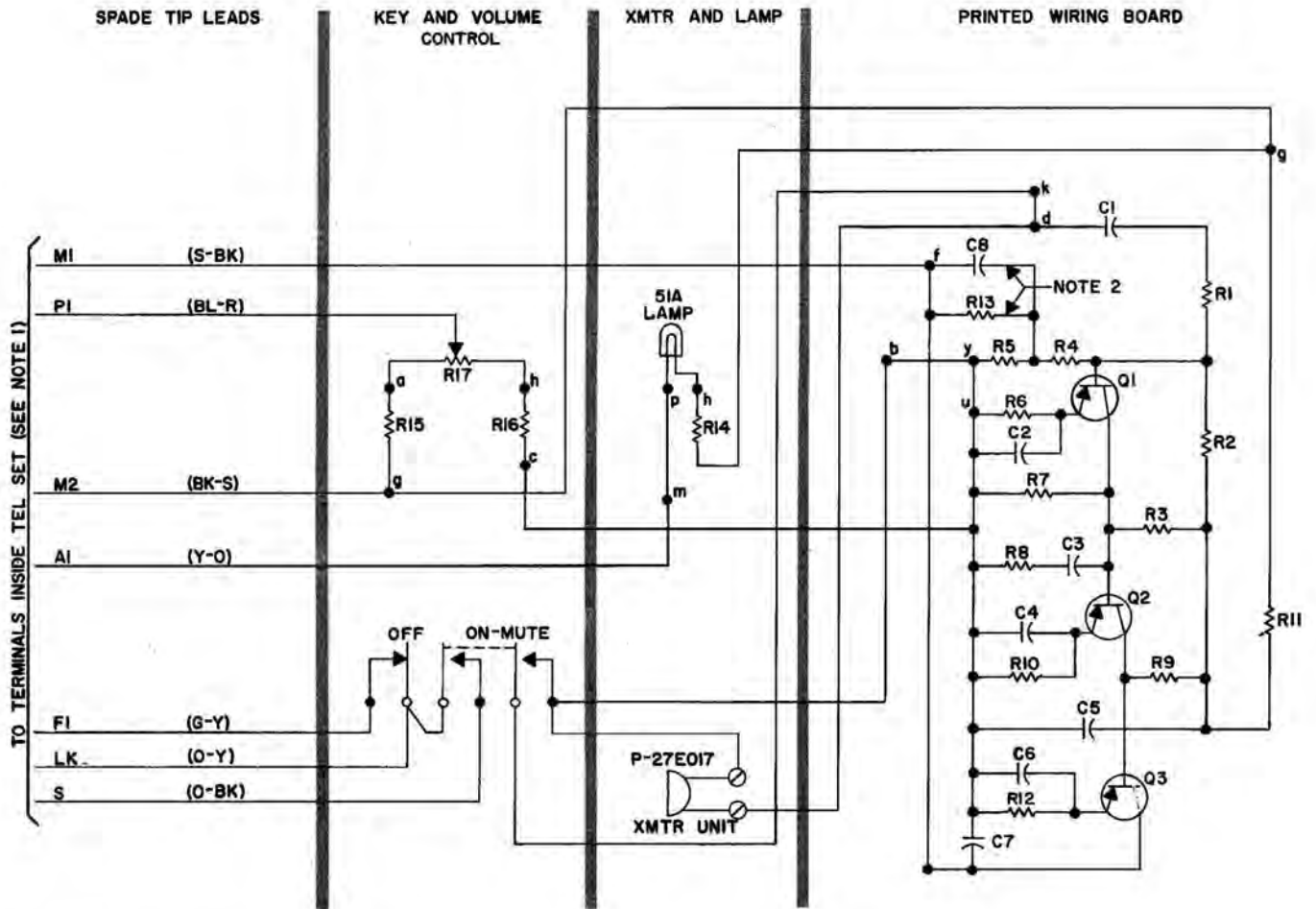


Fig. 5 - 667-Type Transmitter

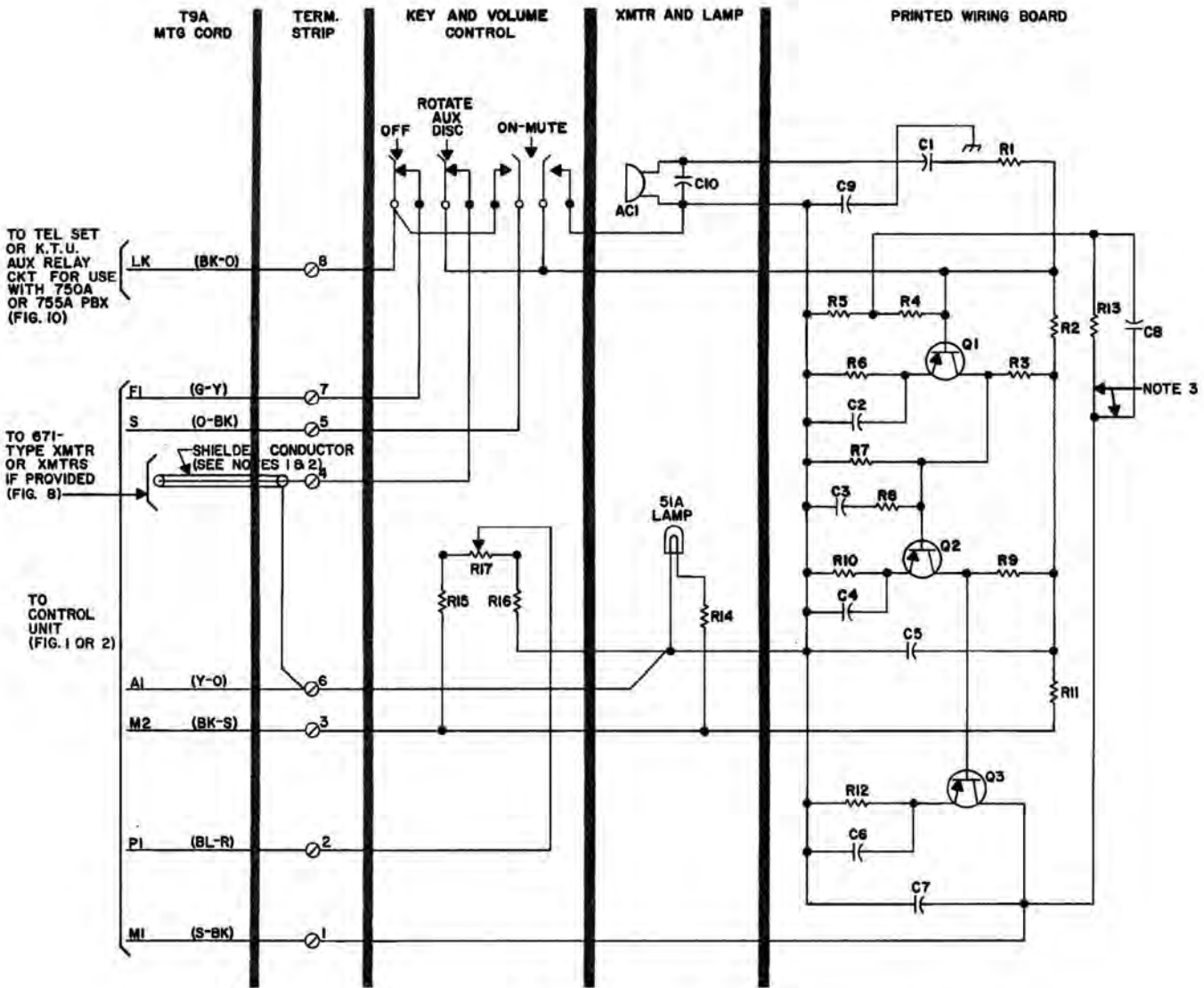


NOTE 1: THE 669A TRANSMITTER IS DESIGNED FOR MOUNTING INSIDE CERTAIN TELEPHONE SETS. SEE SECTIONS COVERING CONNECTIONS FOR PARTICULAR TELEPHONE SET.

NOTE 2: RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS, UNLESS OTHERWISE SPECIFIED.

Fig. 6 - 669A Transmitter



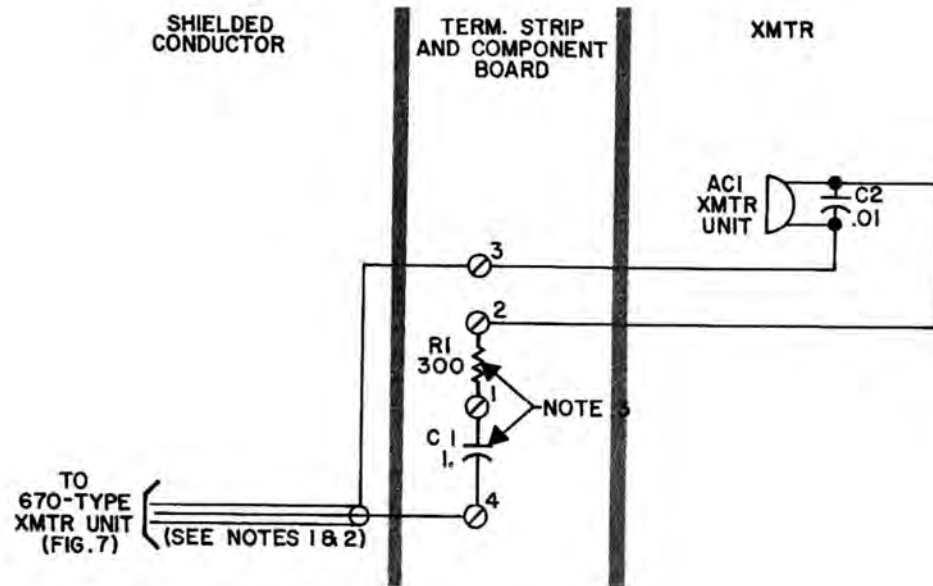


NOTE 1: THE SHIELDED CONDUCTOR OF MTG CORD T9A HAS TWO LEADS (THE SHIELD AND THE CONDUCTOR). THE SHIELD IS THE LONGER OF THE TWO LEADS. CONNECT SHIELD OF THE MTG. CORD TO SHIELD OF CONDUCTORS FROM THE 671 XMTR OR XMTRS.

NOTE 2: EACH 670A XMTR UNIT IS LIMITED TO NO MORE THAN FIVE AUXILIARY TRANSMITTER UNITS. (671-TYPE XMTRS).

NOTE 3: RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS, UNLESS OTHERWISE SPECIFIED.

Fig. 7 - 670A Transmitter

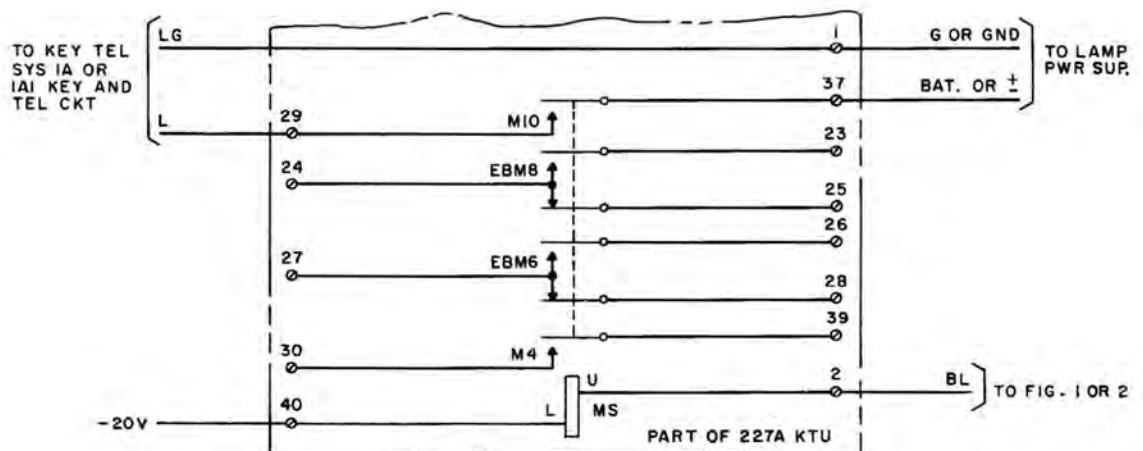


NOTE 1: THE SHIELDED CONDUCTOR IS NOT A PART OF THE TRANSMITTER, AND MUST BE OBTAINED SEPARATELY.

NOTE 2: CONNECT SHIELD TO TERMINAL 3 AND CONDUCTOR TO TERMINAL 4.

NOTE 3: RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS, UNLESS OTHERWISE SPECIFIED.

**Fig. 8 - 671A Transmitter**



**Fig. 9 - Station Busy-Lamp Control Circuit**

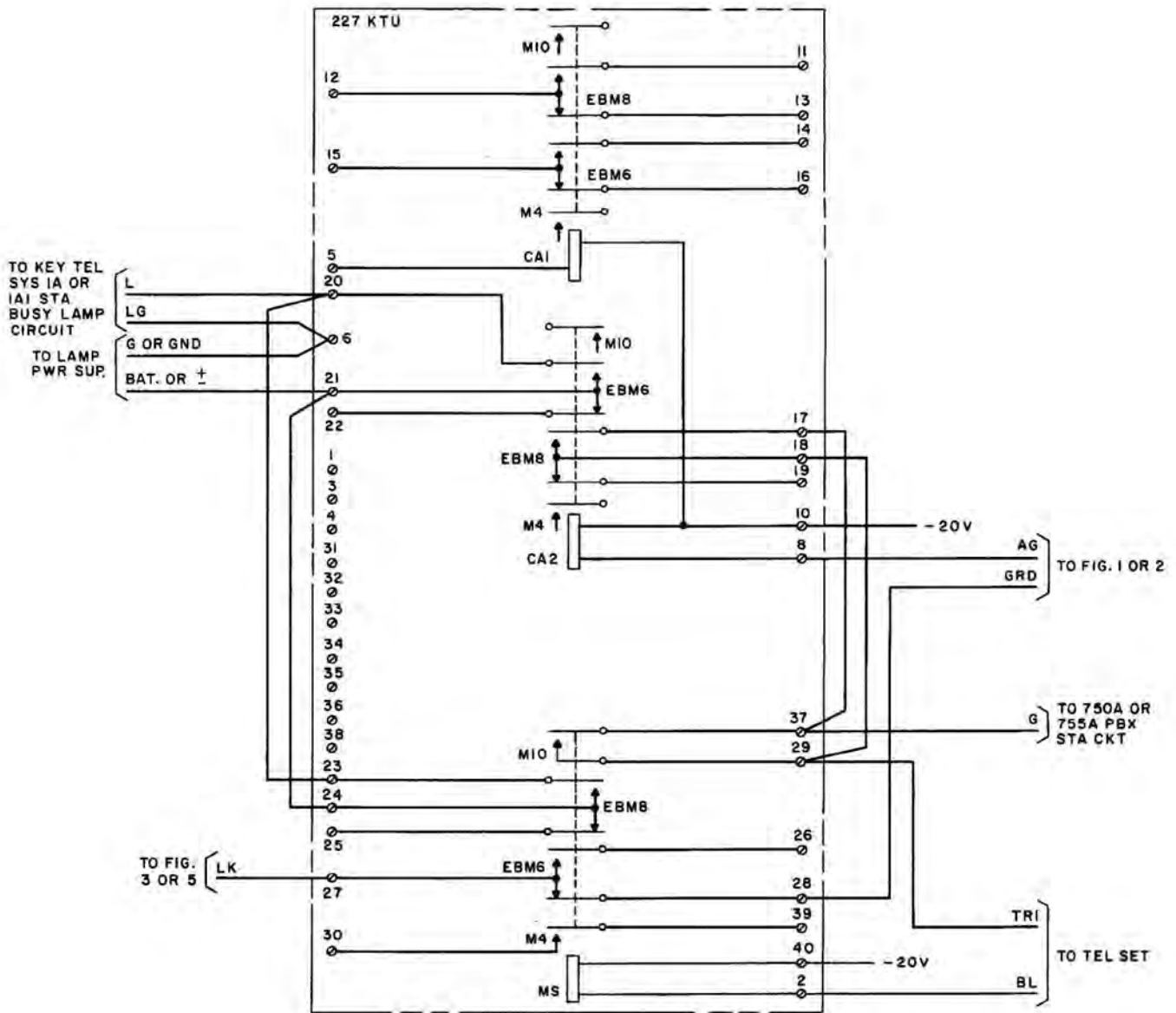


Fig. 10 - Auxiliary Relay Circuit for Use with 750A or 755A PBX