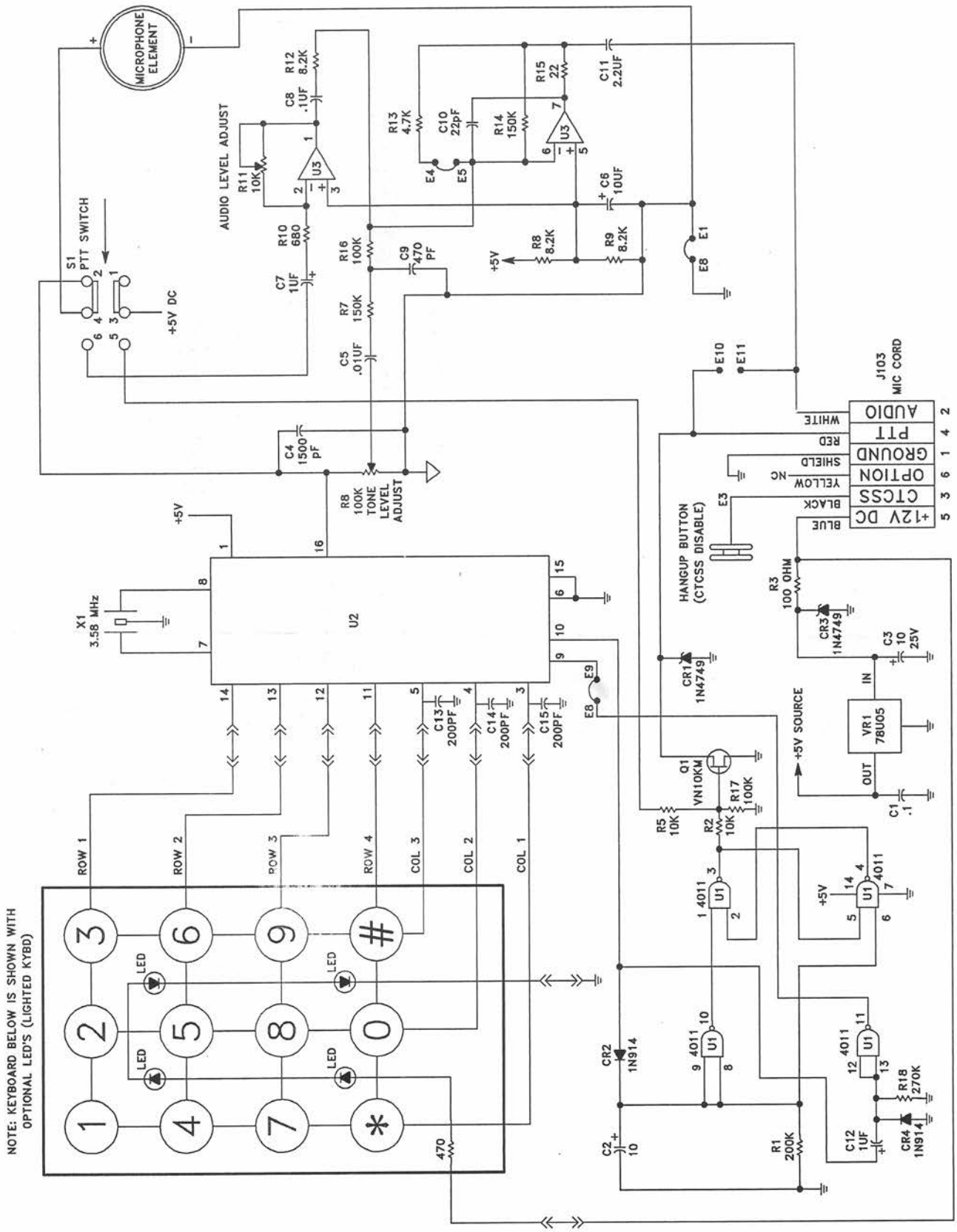

LOW IMPEDANCE MICROPHONE SCHEMATIC
PART NO. 250-0751-021

JOHNSON DTMF MICROPHONE INSTALLATION INSTRUCTIONS PART NO. 250−0751−0xx

MICROPHONE DESCRIPTION

This DTMF microphone is available in several different configurations. There is a high impedance version for LTR® 88xx series, SDL, PPL, Fleetcom, and Transcom transceivers, and a low impedance version for LTR 86xx series and Challenger® transceivers. The high impedance microphones are available with or without memory. All DTMF microphones currently available have a backlighted dial. Refer to Table 1 to determine which microphones are used with the various Johnson transceivers.

TABLE 1
MICROPHONE USAGE TABLE

Transceiver	Microphone Part No. (250−0751−xxx)			
	High Imped Standard (no backlight)	**High Imped Memory (backlight)**	**High Imped Standard (backlight)**	**Low Imped Standard (backlight)**
Transceivers using Round Mic Connector LTR, 8700, 8710 SDL 6055, 6065 PPL 6050, 6060 Fleetcom II 520, 529, 530, 559, 1559 Transcom IIB 571, 573, 581, 583	−002	−010	−014	−−
LTR 86xx	−−	−−	−−	−021
LTR 8800B, 8805, 8810	−003	−011	−015	−−
LTR 8850, 8855, 8865, 8870, Remote Mount PPL, Fleetcom II, Transcom II with control head PN 250−4700 or 250−4800	−004	−012	−016	−−
LTR 8800A	−005	−−	−−	−−
RSDL 6056, 6066, 6156, 6166	−−	−013	−017	−−
Challenger 715x, 717x, 716x, 718x	−−	−−	−−	−021
NOTE: The −002 to −005 high−impedance microphones without backlight are no longer available.				

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INSTALLATION PROCEDURE

CAUTION

Always turn off transceiver power before connecting or removing the microphone because the transceiver could be damaged if the supply pin is shorted to ground.

Challenger 715x/717x and 716x/718x

A jumper must be installed on bottom side of the main PC board of the transceiver to supply 13.8 volts to pin 5 of the microphone connector. Install this jumper as shown in Figure 1.

There is a jumper inside the microphone between E4 and E5 which is used to configure the microphone for a high impedance, amplified, or low impedance output. This jumper should already be factory preset for the correct configuration which is removed for an amplified output. This jumper is shown on the schematic on page 8.

LTR 86xx

The LTR 86xx mobile transceivers do not require any modifications to use this microphone. However, fuse F301 on the main board must have continuity for power to be supplied to the microphone. In addition, the E4/E5 jumper must be configured as described in the preceding paragraph.

LTR 8700, 8710

The 8700 and 8710 transceivers do not require any modifications to use this microphone. However, fuse F409 on the main board must have continuity for power to be supplied to the microphone.

LTR 8800B, 8805, 8810 (Dash Mount)

Remove the front panel of the transceiver and connect the microphone to J701 as shown in Figure 2. The white mark on the connector must be on the pin 5 end of J701.

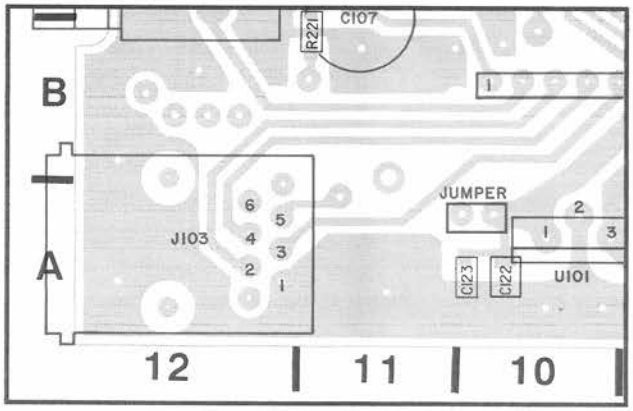
LTR 8850, 8855, 8865, 8870 (Remote Mount)

Remove the control head covers and connect a jumper from pin 2 of the main connector to pin 7 (13.8V). Replace the covers.

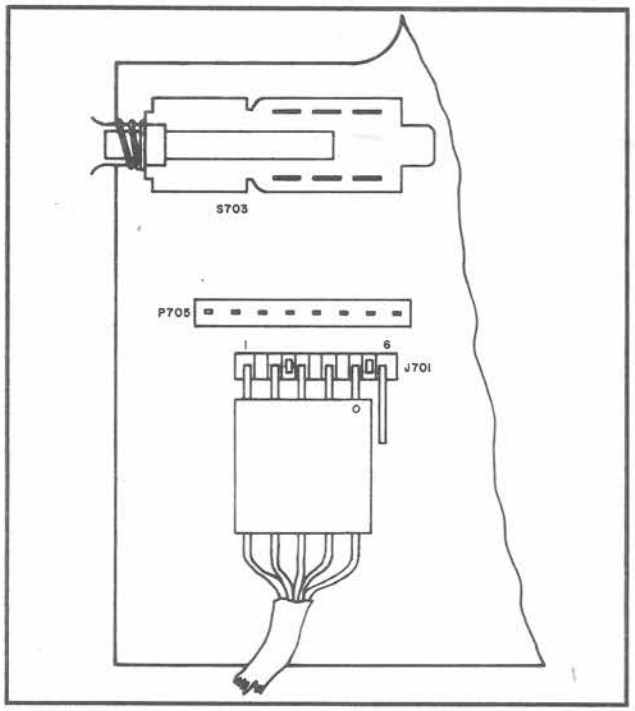
Plug the microphone into the control head and plug the blue microphone wire into socket 2 (refer to Figure 3). Hook the strain relief onto the control head.

LTR 8800A

Connect the microphone to J701 with the white mark on the connector to the pin 1 end of J701 (refer to Figure 4). Connect the blue wire to R883.



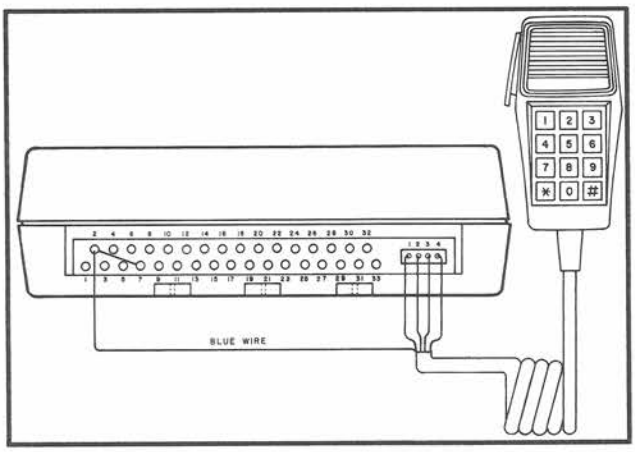
CHALLENGER 71xx JUMPER INSTALLATION FIGURE 1



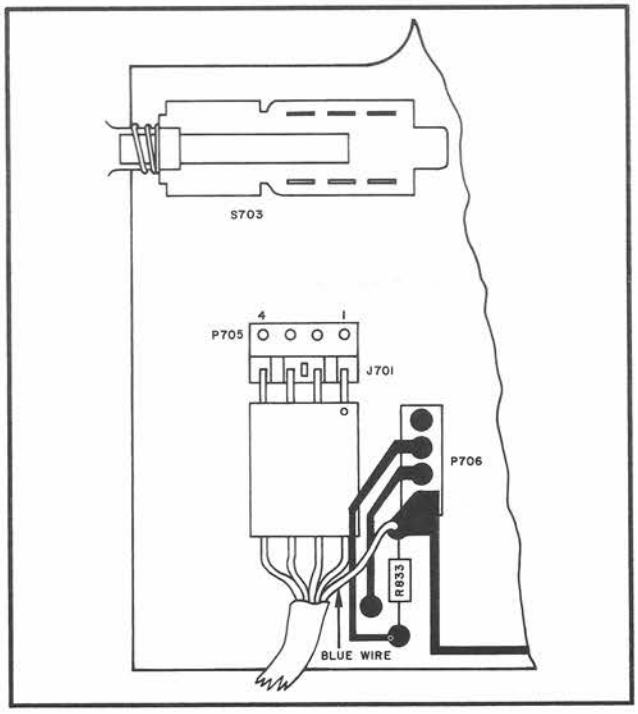
LTR 8800B, 8805, 8810 PLUG CONNECTION FIGURE 2

SDL 6055, 6065

On the early versions of this transceiver, the red wire from P705, pin 5 of the main board of the transceiver is not connected to pin 5 of the



LTR 8850, 8855, 8865, 8870 INSTALLATION FIGURE 3



LTR 8800A PLUG INSTALLATION FIGURE 4

microphone jack. To supply power to the microphone, remove the heat shrink tubing from the wire and attach the wire to pin 5 of the microphone jack.

On the revised versions of this transceiver, a jumper must be installed on the bottom of the PC board to apply power to P705, pin 5. Connect a jumper from the wire-out near pin 5 to the adjacent wire-out (under R334) in the 13.8 volt runner.

TABLE 2
POWER SOURCES

Transceiver	13.8V Power Source
PPL 6040, 6050	J402 or J601
PPL 6060, Fleetcom II (except 520), Transcom II	J304 or J402
Fleetcom II 520	J304

RSDL 6056, 6066, 6156, 6166

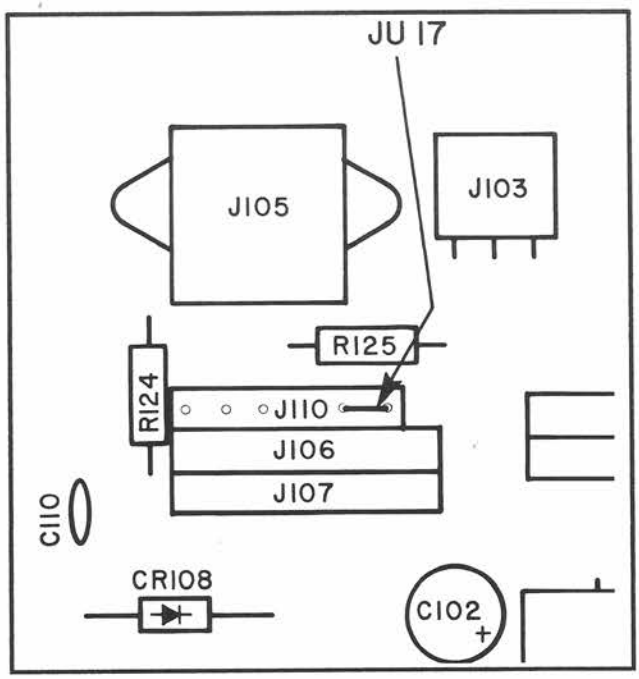
Jumper plug JU17 in the control head must be installed to supply 13.8 volts to the microphone. Install this jumper plug if required (refer to Figure 5) and plug the microphone into the control head.

PPL, Fleetcom II, Transcom II (Dash Mount)

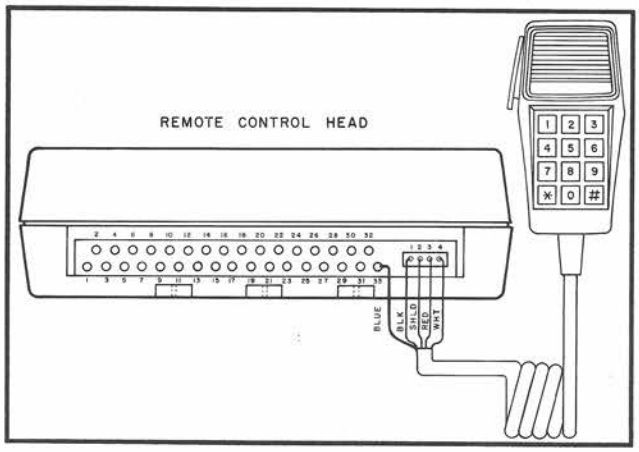
With these transceivers, 13.8 volts must be applied to pin 5 of the microphone jack. Using the included wire, connect 13.8 volts to pin 5 from the source indicated in Table 2.

PPL, Fleetcom II, Transcom II (Remote Mount)

Connect the microphone to the control head as shown in Figure 6. Plug the blue microphone wire into socket 33 (13.8V) as shown.



RSDL 6056, 6066, 6156, 6166 INSTALLATION FIGURE 5



REMOTE FII, TII, PPL INSTALLATION
FIGURE 6

MICROPHONE MODIFICATIONS

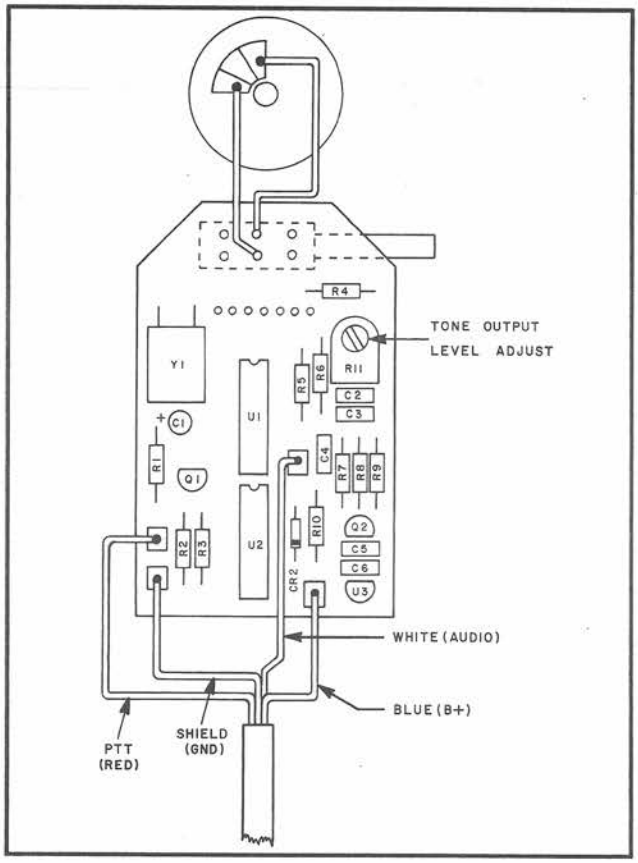
CAUTION

The CMOS microprocessor in the memory microphone can be damaged by static discharges. To prevent damage when setting the deviation, use an insulated alignment tool and do not touch the board.

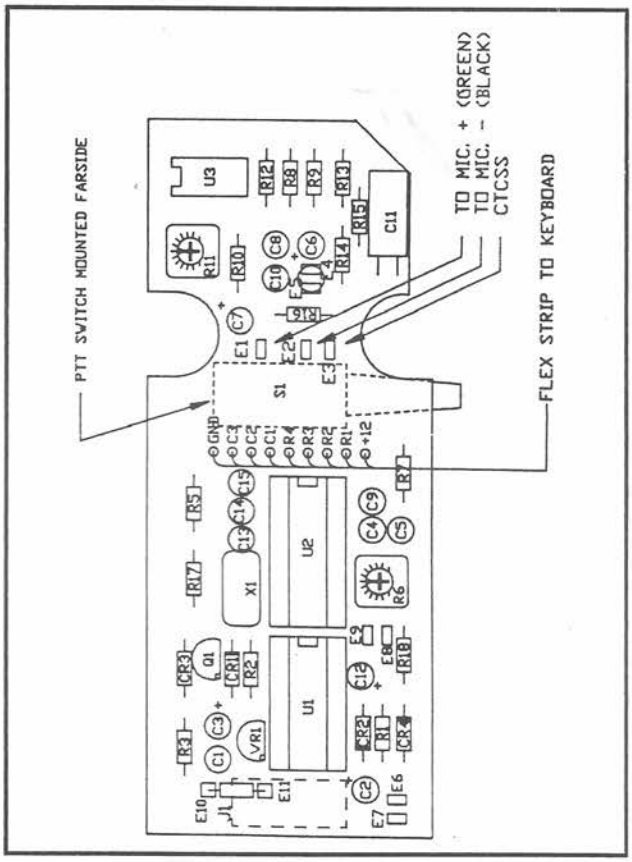
All the standard (without memory) microphones have an automatic PTT feature which eliminates the need to press the PTT switch when dialing a number. To disable this feature, remove resistor R2 (−021) or R3 (−002/−005, −014/−017).

ADJUSTING TONE DEVIATION

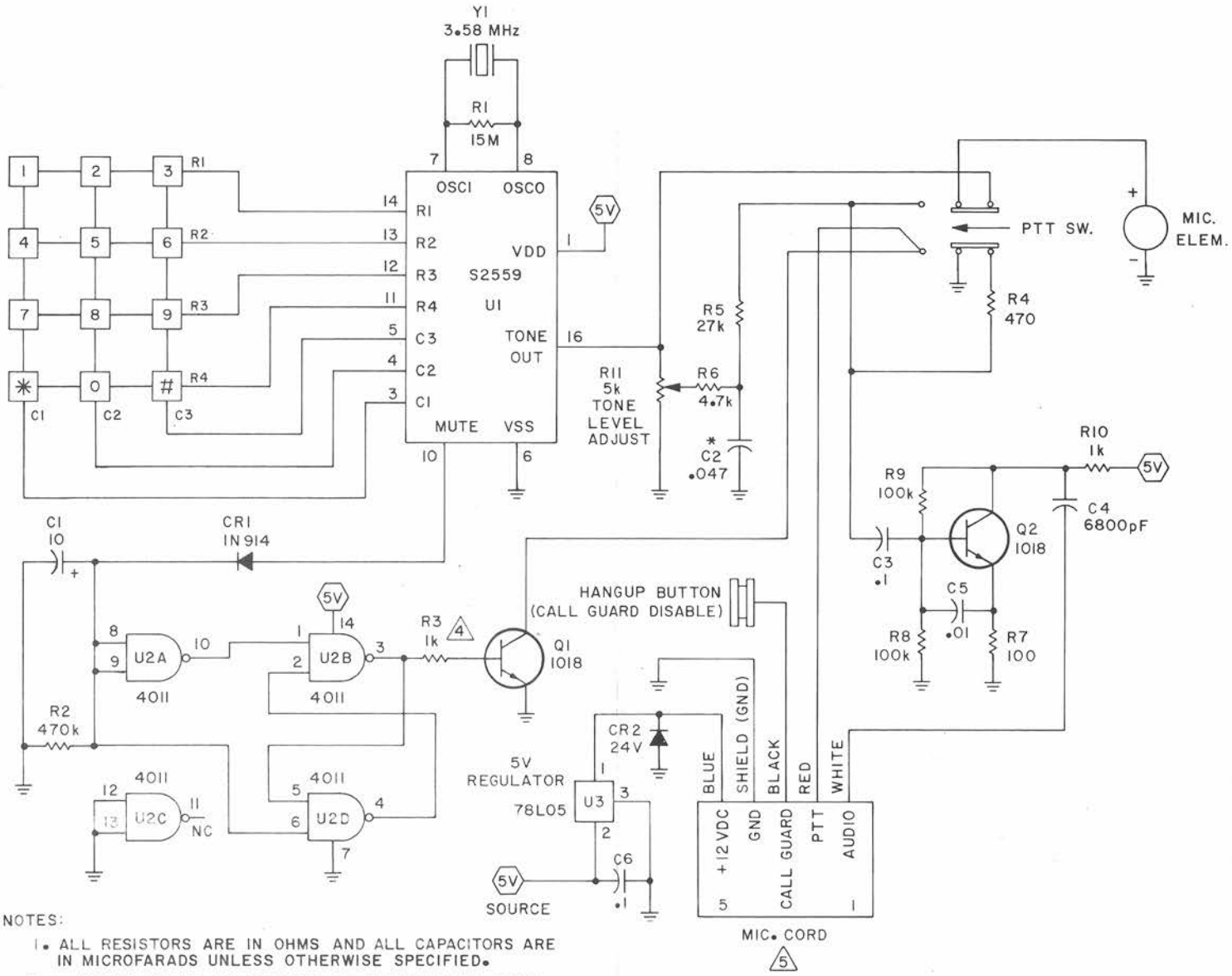
The tone deviation can be adjusted by a potentiometer inside the microphone. Remove the back of the microphone and adjust the potentiometer for a tone deviation of ± 3 kHz. Do not adjust for levels greater than this.



−002/−005 and −014/−017 LAYOUT
FIGURE 7



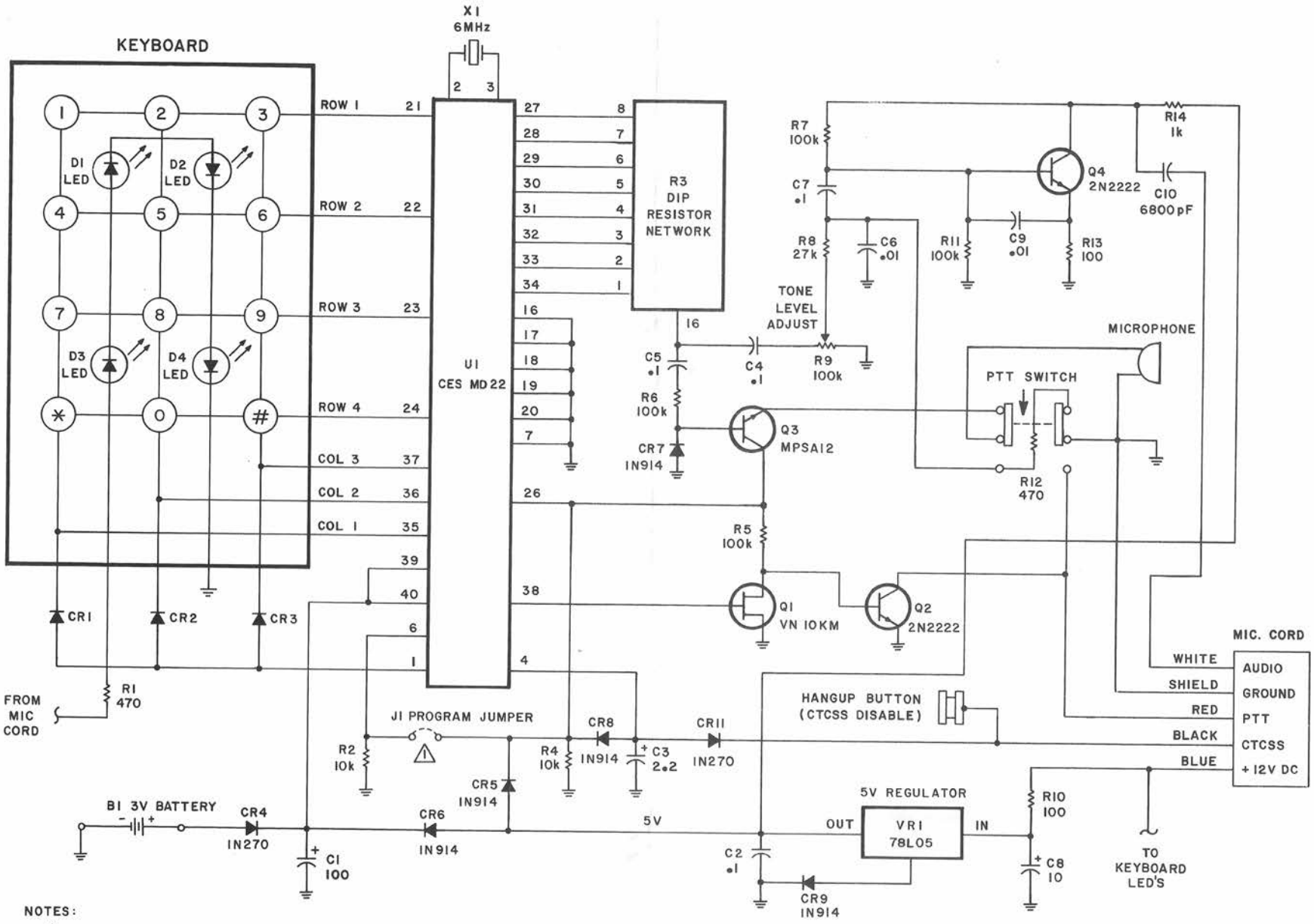
−021 LAYOUT
FIGURE 8



NOTES:

1. ALL RESISTORS ARE IN OHMS AND ALL CAPACITORS ARE IN MICROFARADS UNLESS OTHERWISE SPECIFIED.
2. * MAYBE RAISED OR LOWERED TO CHANGE TONE RATIO.
3. RESISTORS ARE 1/4 WATT, 5% UNLESS OTHERWISE NOTED.
4. REMOVE R3 TO DISABLE AUTOMATIC PUSH TO TALK.
5. LTR 8700 PIN 5 IS FUSED.

HIGH IMPEDANCE MICROPHONE SCHEMATIC
PART NO. 250-0751-002/-005

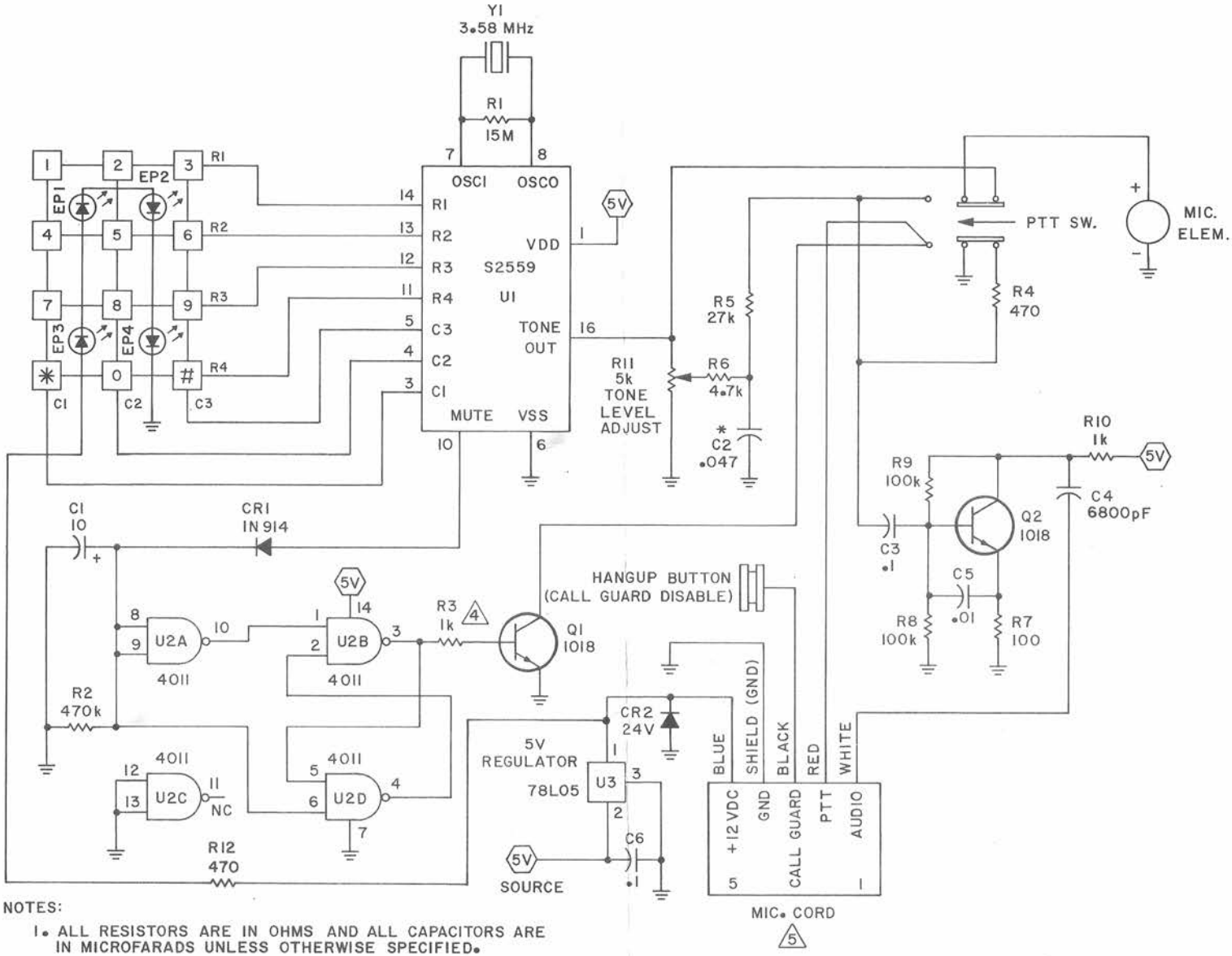


NOTES:

1. TO PREVENT ACCIDENTAL ERASURE REMOVE PROGRAM JUMPER (J1), AFTER PROGRAMMING.

2. ALL RESISTORS ARE IN OHMS AND ALL CAPACITORS ARE IN MICROFARADS UNLESS OTHERWISE SPECIFIED.

HIGH IMPEDANCE MEMORY MICROPHONE SCHEMATIC PART NO. 250-0751-010/-013



NOTES:

1. ALL RESISTORS ARE IN OHMS AND ALL CAPACITORS ARE IN MICROFARADS UNLESS OTHERWISE SPECIFIED.
2. * MAYBE RAISED OR LOWERED TO CHANGE TONE RATIO.
3. RESISTORS ARE 1/4 WATT, 5% UNLESS OTHERWISE NOTED.
4. REMOVE R3 TO DISABLE AUTOMATIC PUSH TO TALK.
5. LTR 8700 PIN 5 IS FUSED.

HIGH IMPEDANCE MICROPHONE SCHEMATIC
PART NO. 250-0751-014/-017