

Engineering News



ALTEC Lansing Corporation
A SUBSIDIARY OF LING-TEMCO-VOUGHT INC.

1515 S. Manchester Avenue,

Anaheim, California

Technical Letter No. 145

MODIFICATION OF ALTEC 351B AMPLIFIER FOR USE WITH 695A MICROPHONE

The Altec 695A Microphone/Amplifier may be utilized with the Altec 351B power amplifier when the advantages of a lightweight, hand-held microphone are required, but without the need for additional preamplifiers. Certain modifications are required, in both the 695A switch and the power supply and input circuitry of the 351B amplifier; when completed, these modifications permit the 695A to be directly connected to the 351B for paging and PA applications.

Figure 1 illustrates the wiring changes to be made in the 695A switch, access to which is gained by removing the six screws on the rear of the microphone housing; these changes are necessary in order to eliminate switching transients which, otherwise, would appear as 'thumps' via the loudspeakers. Mechanical switch noise is prevented, on current models of the 695A, by a felt pad, inserted in one end of the slide switch; earlier models of the microphone may not have this pad, which is easily added by the sound contractor.

Figure 2 shows the circuitry of the modifications required in the 351B amplifier, together with the parts list for the additional components. Figure 3 illustrates the correct placement of these components and their connection to existing circuitry.

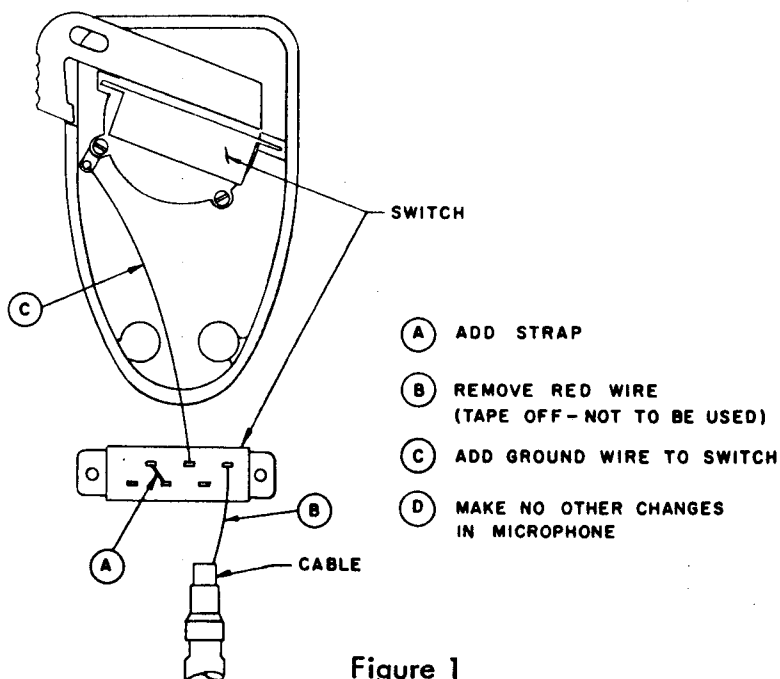


Figure 1

MODIFICATION OF 351 B AMPLIFIER
FOR USE WITH 695A MICROPHONE MODIFIED PER FIGURE 1

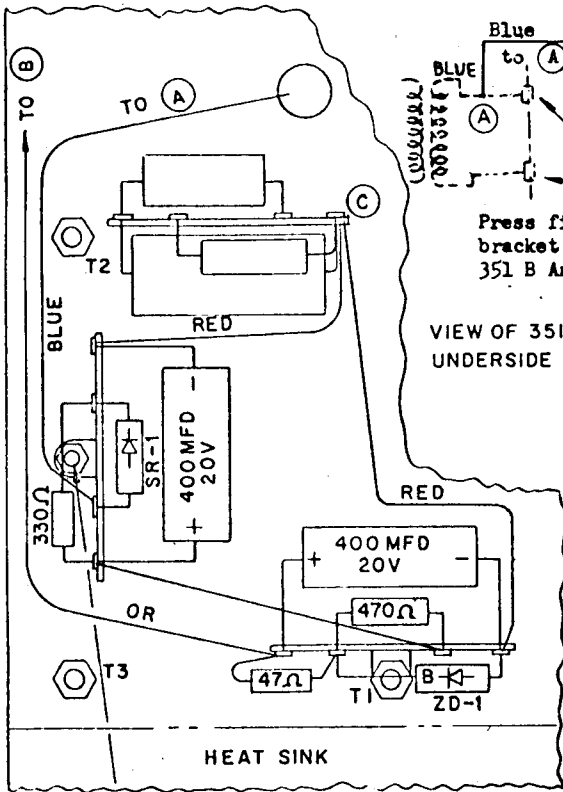


FIGURE 3

DRILL 3/16 HOLE MIDWAY BETWEEN TRANSFORMER MTG. SCREWS T2 & T3. MOUNT 4 TERMINAL TIE POINT WITH 6-32 X 3/8 BHMS, HEX NUT & LOCK WASHER. MOUNT 4 TERMINAL TIE POINT-POSITION T1 USING EXISTING SCREW, NUT & LOCK WASHER REAM HOLE IN TIE POINT BRACKET TO GO ON # 8 SCREW

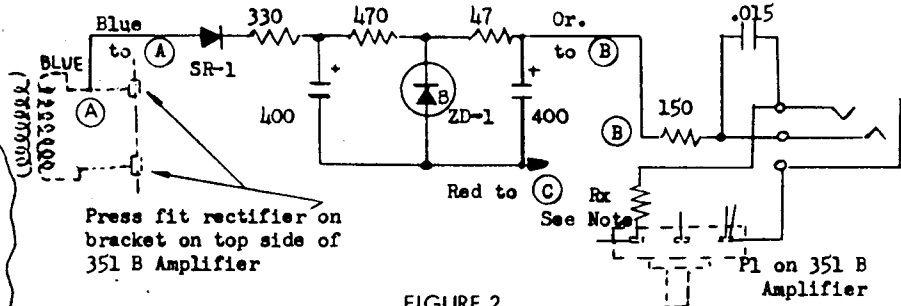


FIGURE 2

NOTE: Rx 22000 ohms nominal; value of Rx determines relative level of microphone and alternate input such as line input.
If Rx is made smaller, microphone level will be greater.
If Rx is made larger, line input level will be greater.

PARTS LIST

- 1- 695A Microphone
- 1- C12B Switchcraft Jack
- 1- Silicon Rectifier (SR-1) 200 PIV 500MA G.E. 1N1693 or equal.
- 1- Zener Diode (ZD-1) 12V ± 10% 1 watt. G.E. Z4XL12B or equal
- 2- Condensers - 400 mfd 20V. Mallory Pet-A or equal. (Not over 5/8" dia and 1 3/4" long)
- 1- Condenser .015 mfd ± 10% 200V.
- 1- 470 ohm ± 10% 1/2W resistor.
- 1- 330 ohm ± 10% 1/2W resistor.
- 1- 150 ohm ± 10% 1/2W resistor.
- 1- 47 ohm ± 10% 1/2W resistor.
- 1- 22,000 ohm ± 10% 1/2W resistor.
- 2- Lug type terminal strips cinch 54B or equal.