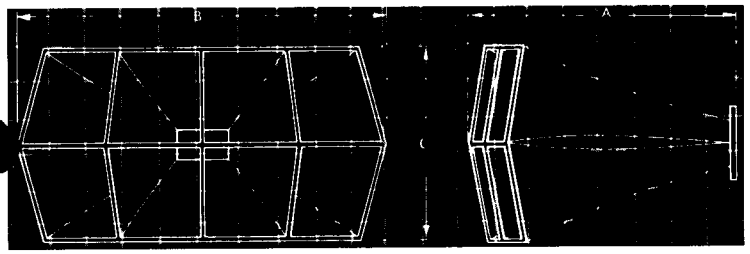

ALTEC ENGINEERING NOTES

TECHNICAL LETTER NO. 225

MODIFYING THE 9860A ACTIVE EQUALIZER FOR LOW-LEVEL SIGNAL APPLICATIONS

The 9860A Active Equalizer is designed to operate with a nominal input level of about +4 dBm. In many studio monitoring situations, however, levels as low as -12 or -14 dBm are encountered at the monitor bus outputs, and driving the 9860A at those levels degrades the signal-to-noise capabilities of the device.

The 9860A is equipped with 15356 input and output transformers. These are 600/600-ohm devices and are used for isolation only. If the 15095A transformers are used instead, the 600/15,000-ohm impedance transformation provides a 13 dB voltage advantage going into the equalizer circuitry, and consequently that much more signal-to-noise ratio. The steps in making the modification are:

Step 1. Rewire both input and output transformer octal sockets to accommodate the 15095A transformers.

Step 2. Change the input transformer secondary load resistor R36 (620 ohms).

The pin configuration for the 15095A is different from the 15356, and the octal sockets will have to be rewired as shown in Figures 1 and 2.

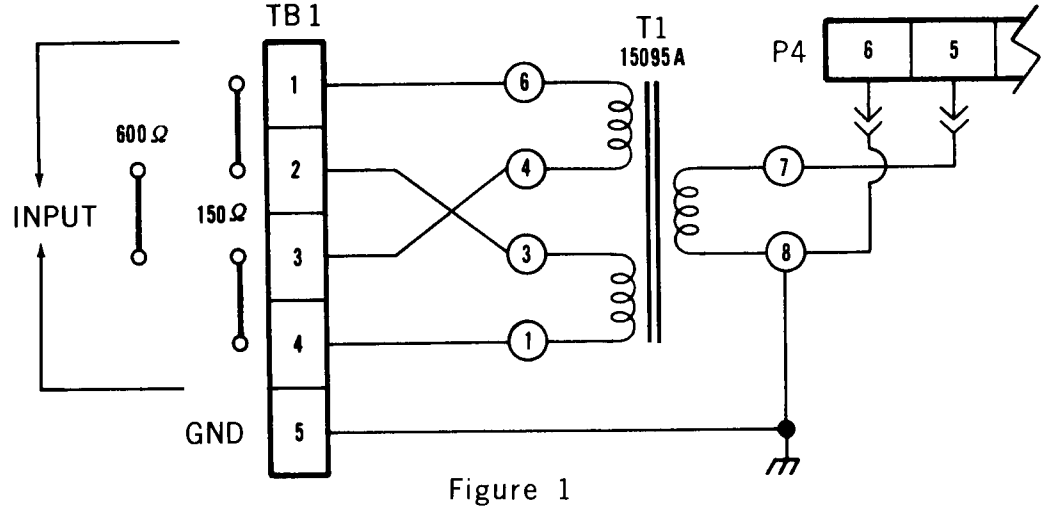

Figure 1

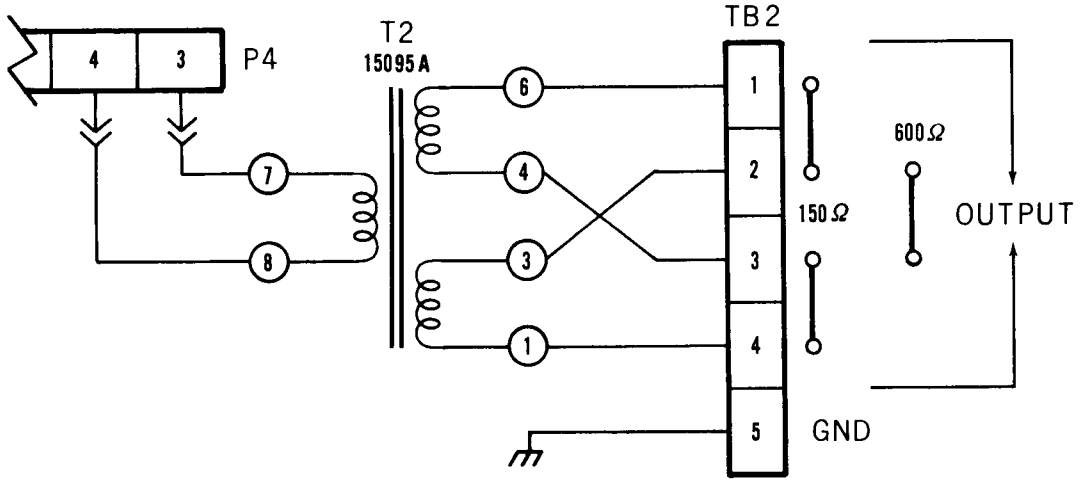

Figure 2

Litho in USA CP-573-2.5K

Use the following procedure to change R36 on the control PCB assembly (A7):

Step 1. Drop the front panel of the unit and remove the two black screws over each of the hinges for the front panel (4 screws in all). Do not remove any of the other black screws.

Step 2. Pull the PCB assembly out of the chassis and note the location of the circuit board behind the pushbuttons.

Step 3. Locate R36 as it is shown in Figure 3 and remove it from the board, then replace it with a 15KΩ resistor.

Remember, the modified unit should not receive input levels exceeding +4 or +5 dBm, or clipping of the signal will result.

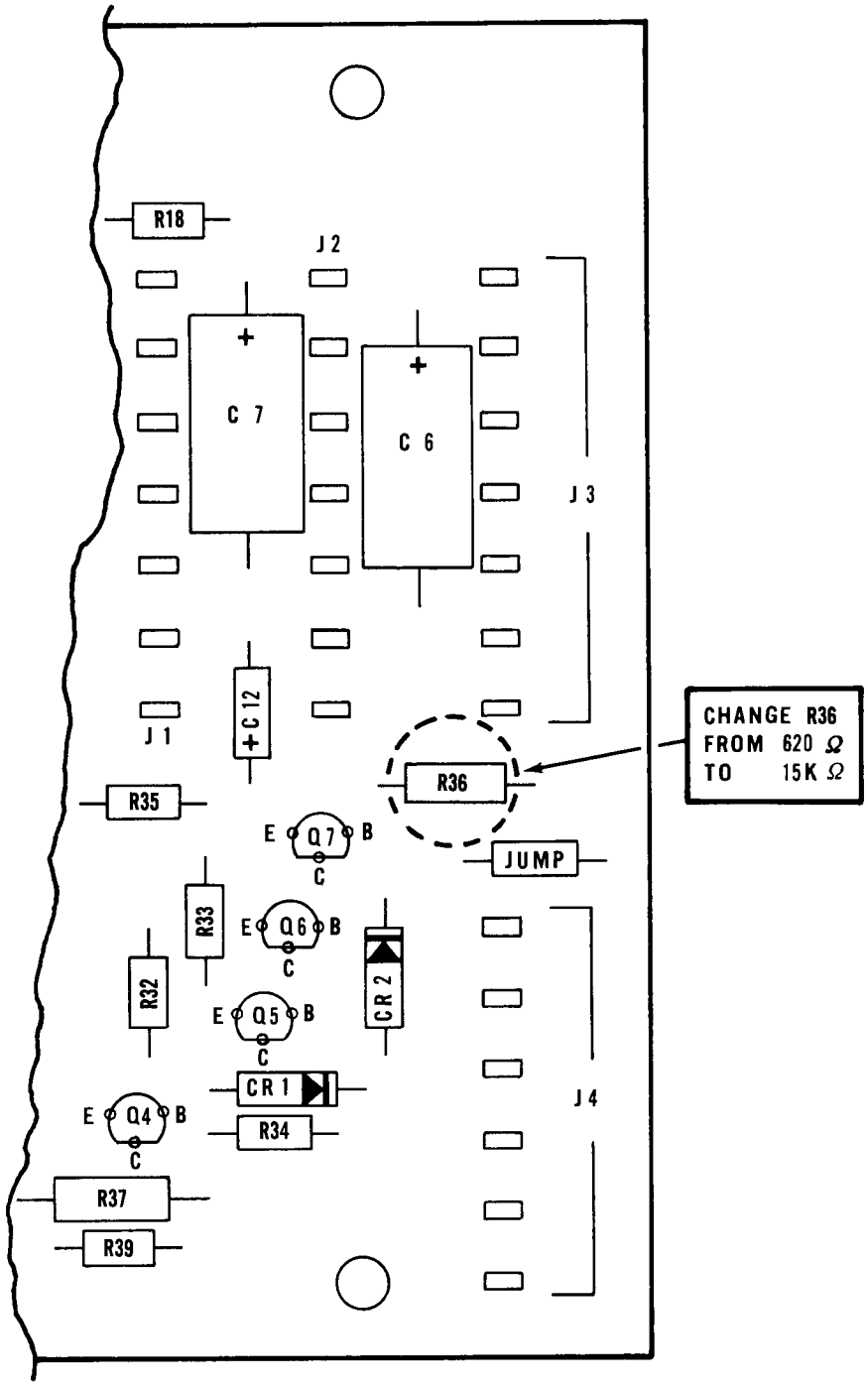

Figure 3