

TROUBLE SHOOTING

THE OVATION ACOUSTIC-ELECTRIC GUITAR

Technical Method - Using an Oscilloscope, and Audio Meter, or Volt Meter, and provided schematic of F.E.T. pre-amp.

- NOTE:
1. Check battery voltage at battery terminals. (9 volts)
 2. Measure the D.C. voltage across test point 6 (plus 9.0 volts) and test point 7 (ground). If no voltage is apparent, check the wire to the output jack switch. Be sure the output jack switch is making contact when the jack is plugged in.
 3. Inject a 500mv 100Hz signal at test point 5, with the volume control up full (clockwise). If no signal is present at output jack, check output jack and wires to it.
 4. Inject a signal 500mv 100Hz at test point 4 with the volume control up full (clockwise). If there is no signal, check solder joints or replace the volume control.
 5. Inject a 50 millivolt - 100Hz signal at test point 2 through a .1 mfd or larger capacitor (the gate of Q1). The output voltage at the output jack should measure approximately 500 millivolts.
 - A. If no signal is apparent at the output, replace Q1, (Motorola 2N5459 - DO NOT SUBSTITUTE).
 - B. If the output at the output jack is below 100mv, short test point 8 to ground. If signal does not increase drastically, short out test point 3 to ground. If shorting this does not increase gain drastically, replace C3.
 - C. If shorting test point 8 to ground does increase gain drastically check L2. If shorting test point 3 to ground does increase gain drastically, check L1.
 6. Inject a 50 millivolt 5kHz at test point 2, through a .1 mfd or larger capacitor (the gate of Q1). The output voltage at the output jack should measure approximately 500 millivolts.
 - A. If no signal is apparent at the output, replace Q1, (Motorola 2N5459 - DO NOT SUBSTITUTE).
 - B. If the output at the output jack is below 100 mv, short test point 8 to ground. If signal does not increase drastically, short out test point 3 to ground. If shorting this does not increase gain drastically, replace C3.
 - C. If shorting test point 8 to ground does increase gain drastically, check C5. If shorting test point 3 to ground does increase gain drastically, check C4.
 7. Disconnect lead from pickup at test point 1 on circuit board. Inject a 500 millivolt - 100Hz signal at test point 1. The output voltage at the output jack should read approximately 500 millivolts. If no signal is present, check C1 and R1. If a signal is present, check the pickup, solder connections, and associated cable for shorts or opens.

