

solder bridges by holding a clean soldering iron tip between the two points that are bridged until the excess solder flows down the tip of the soldering iron.

3. Be sure each transistor is in the proper location (correct part number and type number). Be sure that each transistor lead is positioned properly and has a good solder connection to the foil.
4. Check capacitor values carefully. Be sure the proper part is wired into the circuit at each capacitor location. Always check the polarity of electrolytic capacitors to be sure they are installed correctly.
5. Check each resistor carefully. It would be easy, for example, to install a 1000  $\Omega$  (brown-black-red) resistor where a 100 k $\Omega$  (brown-black-yellow) resistor is called for. A resistor that is discolored, or cracked, or shows any sign of bulging would indicate that it is faulty and should be replaced.
6. Be sure the correct diode is installed at each diode location, and that the banded end is positioned correctly.

7. Recheck the wiring. Trace each lead in colored pencil on the Pictorial as it is checked. It is frequently helpful to have a friend check your work. Someone who is not familiar with the unit may notice something you have consistently overlooked.
8. Check all component leads connected to the circuit boards. Make sure the leads do not extend through the circuit board and make contact with other connections or parts, such as coil shields or the chassis.

If the trouble is not located after the "Visual Tests" are completed and a voltmeter is available, check voltage readings against those shown in the Schematic Diagram and "X-Ray Views." A review of the "Circuit Description" may also help you determine the cause of a trouble.

In an extreme case where you are unable to resolve a difficulty, refer to the "Customer Service" information inside the rear cover of the Manual. Your Warranty is located inside the front cover.

## Troubleshooting Chart

CONDITION	POSSIBLE CAUSE
No relative power output indication.	<ol style="list-style-type: none"> <li>1. Driver trimmer capacitors not peaked.</li> <li>2. Relay contacts not together.</li> <li>3. Q6 and/or Q7 installed backwards.</li> <li>4. Faulty diode D1.</li> </ol>
Transmitter does not key.	<ol style="list-style-type: none"> <li>1. Faulty Q12.</li> </ol>
Crystal oscillator inoperative.	<ol style="list-style-type: none"> <li>1. Driver trimmer capacitors not peaked with crystal when in crystal transmit mode.</li> </ol>
Sidetone inoperative.	<ol style="list-style-type: none"> <li>1. Faulty Q10 and/or Q11.</li> </ol>
Relay inoperative.	<ol style="list-style-type: none"> <li>1. Faulty Q8 and/or Q9.</li> </ol>
Receiver section inoperative.	<ol style="list-style-type: none"> <li>1. Shorting spring not removed from Q1.</li> <li>2. Faulty Q1.</li> </ol>
No audio output.	<ol style="list-style-type: none"> <li>1. Faulty IC1.</li> </ol>