

## 9.4 Bootstrap Resistor Modification

**Applicability:** CE-1000, CE-2000, UT-1010, UT-2020, S3 and M-240 amplifiers containing the following main modules: CPN 102139-5, CPN 102140-5, CPN 102140-6, CPN 102140-8, CPN 102140-9 and CPN 127354-1. **This modification is not necessary on 127451-4 and 127452-4 PWAs.**

**Diagnosis:** Perform this modification on all listed boards for any amplifiers retained for servicing. This modification is required to create a voltage-divider network to divert excess wattage from key main board components. Check first to verify if a previous modification has already been performed by a Crown authorized servicer. Previously installed bootstrap resistor may be located on main board top next to C1 capacitor (original 0156 procedure), or may be spliced into the bootstrap supply wire (*Tech Note 0156 REV A* procedure).

**Part Description:** 1000-Ohm, 5-Watt resistor (CPN 127438-1), Clip (CPN 127439-1)

### Procedure:

1. Locate the bootstrap supply wire. This white wire runs from the bridge rectifier to WP6 on the main board.

2. Cut bootstrap supply wire approximately 6 inches (15 cm) from the end connected to the bridge rectifier. This will be approximately 8 inches (20 cm) from the end connected to the main board at WP6.

3. Prep resistor. Hook both leads as shown in Figure 1.

4. Strip and prep both cut ends of the bootstrap supply wire. Slip a 1-inch length of 4-mm shrink tubing over the cut end of each wire. Slide back to expose cut end. Hook each wire in preparation for soldering. See Figure 9.4.

5. Solder each prepared end of the white bootstrap supply wire to the resistor.

6. Slide shrink tubing over solder joints and set in place using a heat gun. See Figure 9.5.

7. Slide supplied clip over resistor and mount in amplifier on the corner of transformer closest to the power supply capacitors using existing bolt. See Figure 9.6.

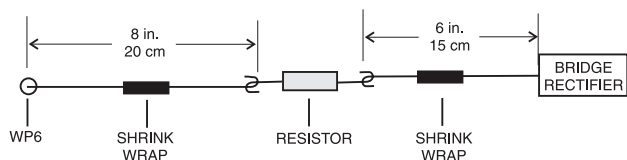


Figure 9.4 Bootstrap Resistor Assembly

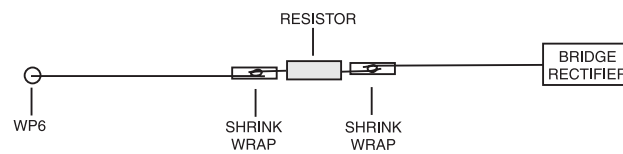


Figure 9.5 Bootstrap Resistor Installation

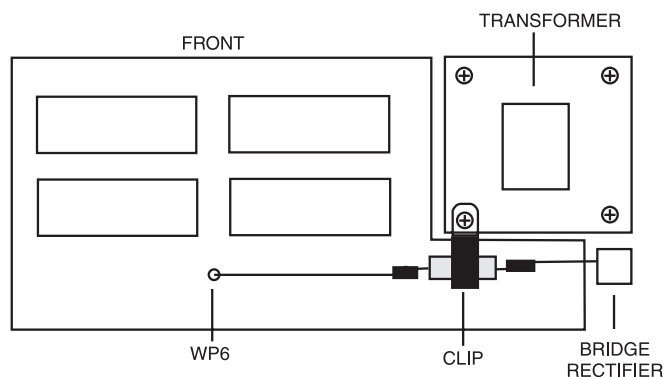


Figure 9.6 Bootstrap Resistor Installed