SEATTLE CITY LIGHT CONSTRUCTION GUIDELINE

STANDARD NUMBER: PAGE: 1 of 3 DATE: December 12, 2000 REV: May 1, 2002





SEATTLE CITY LIGHT CONSTRUCTION GUIDELINE

Applicable to Delta Network System Only

- 1. Remove the jacketing two inches back from the point at which the cable insulation semicon terminates for the splice.
- 2. Cut the flat strap one-inch from the jacketing cutback and bend out of the way (Fig. 1).
- **3.** Make the splice per the Guidelines or the manufacturer's instructions.
- 4. After the semicon tape has been wrapped over the splice, tape two layers, half-lapped, of tinned copper mesh (Stock No. 736244) in the area between the cable jacketing and the hand applied semicon tape (Fig. 2). The tinned copper mesh should total 1-1/2 inches. This tinned copper mesh provides a pad so the ends of the flat strap will not dig into the cable insulation shield semicon. Perform the same process to the flat strap on the other side of the splice.
- 5. Now bend the flat straps down over the tinned copper mesh and secure them so that they are in intimate contact with the semicon. Apply two layers, half-lapped, of tinned copper mesh over the flat strap ends, pulling them down. (Do the same for heat-shrink splices.) Continue taping over the splice to the other end of the splice.
- 6. Lay copper braid (Stock No. 618624) over the flat strap shielding and the braid. Apply a constant force spring (Stock No. 686514) while folding the copper braid over alternating layers of the constant force spring and bring across the splice (Fig. 3). Use another constant force spring on the other side of the splice for the same application, connecting the same copper braid to the second spring. On the station side of the splice, bring out a pigtail of solder blocked copper braid for connecting to ground. This application is for the Delta Network System only.
- 7. Apply two layers of tinned copper mesh over the constant force spring bundle (Fig. 4).
- 8. Apply two layers of mastic tape[™] under and two layers over the solder blocked area of grounding braid (Fig. 5).
- 9. Finish the splice per the Guidelines or the manufacturer's instructions.
- **10.** Connect the grounding braids for the three splices together and then connect to the vault ground.

Helpful Tips for a Successful Low Resistance Ground Connection

Numbers Refer to the Notes above

5. Two suggestions for holding the copper shielding tape in intimate contact with the semicon: Plastic tie wrap.

Serve with one or two wraps of #14 SD bare copper wire.

- 6. Copper to copper contact is essential between the flat strap and the copper braid. This means that the copper braid must go directly onto the flat strap and the constant force spring must go over the braid. The stainless spring material has a relatively high resistance and is a poor conductor compared to the copper.
- 8. Use no more than two layers of mastic over and two layers under the braid solder block. Excessive mastic can wick into the braid and into the braid to flat strap connection area. This results in poor contact and high resistance.
- For taped splices, Stock No. 736512. For heat shrink splices, Stock No. 686541.