

Lower Termination of Conventional Down-conductor to the Lightning Earth

If a conventional downconductor such as copper tape or stranded copper cable has been installed as the downconductor then the lower end of the conductor should be directly connected to the lightning earth and sealed with a water resistant Denso tape so as to avoid oxidation.

- If installing stranded copper cable as a downconductor then the lower end should be connected to the lightning earth through the use of an earth rod clamp and then wrapped with water resistant Denso tape to avoid oxidation.
- If installing a copper tape (25mm x 3mm) as a downconductor then the lower end should be directly connected to the lightning earth through the use of a suitable earth rod clamp and then wrapped with water resistant Denso tape to avoid oxidation.

Termination of the HVSC Lower End

Tools required for the completion of the HVSC Lower Termination include:

- Compression or Mechanical Crimping Tool
- Sharp Knife
- Insulation Friction Cutting Tool
- Shifting Spanner
- Rubber Gloves

Lower Termination Kit Consists of

- 1 x Roll Denso Tape
- 1 x 95mm Crimp Lug
- 2 x Warning Stickers
- 1 x Earth Clamp
- 1 x Insulation Friction Cutting Tool

The following steps outline the termination of the lower end of the High Voltage Shielded Cable to the lightning earth.

The inner screen copper conductors and the outer screen copper conductors should be connected to the earthing system.

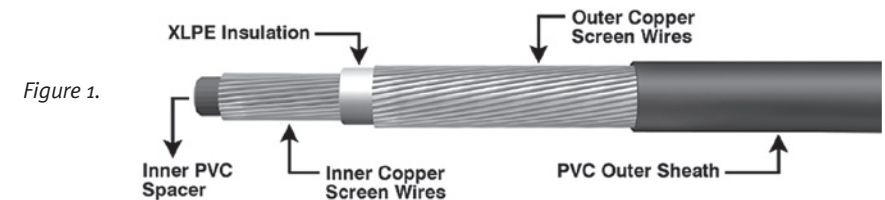
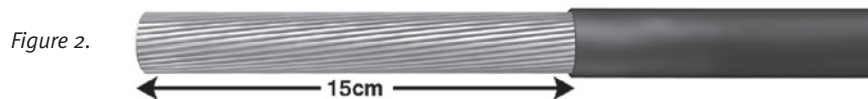


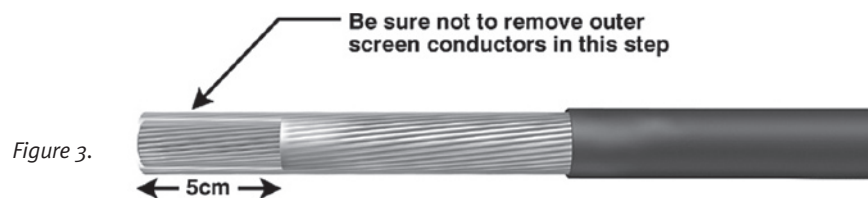
Figure 1.

1. Remove the outer sheath for a length of 15cm from the lower end of the HVSC by cutting radially around HVSC cable with the supplied insulation friction cutting tool. (This is less likely to damage individual copper conductors than by cutting radially with a knife). The lengthwise cut can be completed with a knife.
2. Remove the binder tape (2nd layer) for a length of 15cm from the end of the HVSC, this will expose the outer screen copper conductors as shown in Figure 2 on page 2.

Remove the outer sheath and binder tape for a length of 15cm from the end of the HVSC, this will expose the outer screen copper conductors



3. Fold outer screen conductors back without damaging them. For a length of 5cm from the end of the HVSC remove XLPE insulation (4th layer) and inner binding tape (5th layer) to expose inner screen copper conductors. Be sure not to remove outer screen conductors in this step. It is recommended to use the insulation friction cutting tool in this step.
4. Fold inner screen conductors back without damaging them. For a length of 5cm from the end of the HVSC remove the inner PVC spacer under the inner screen copper conductor leaving the inner screen copper conductor in place.



Remove XLPE insulation and inner binding tape to expose inner screen copper conductors

5. Bunch together both inner and outer screen conductors. If connecting directly to the earth system as per figure 6 then the bunched conductors should be connected to the earth rod clamp and the clamp tightened holding the conductors firmly in place. To avoid oxidation of this connection seal it using the water resistant (Denso Tape) as provided in the kit.

Bunch together both inner and outer screen conductors, crimp them together in the crimp lug provided using a compression or mechanical crimping tool



6. If terminating the lower end of the HVSC to a bus bar then bunch together both inner and outer screen conductors, crimp them together in the crimp lug provided using a compression or mechanical crimping tool and connect the bus bar as per Figure 5.

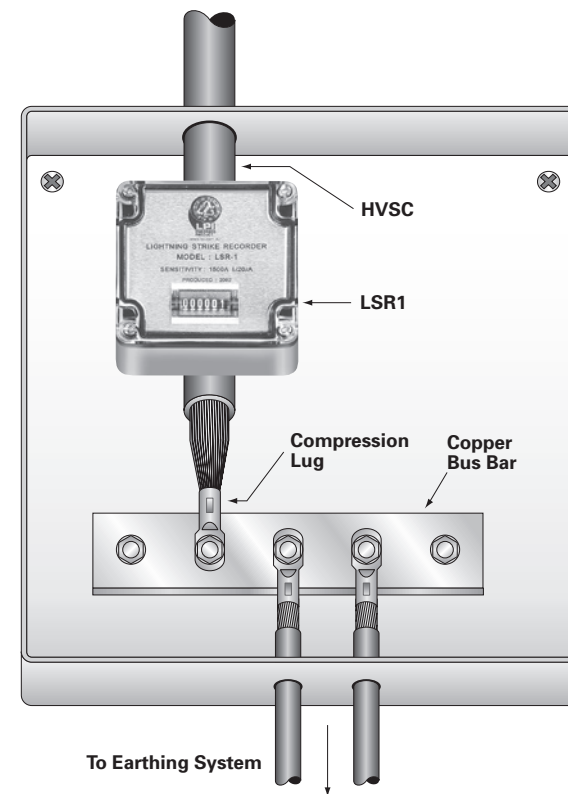


Figure 5.

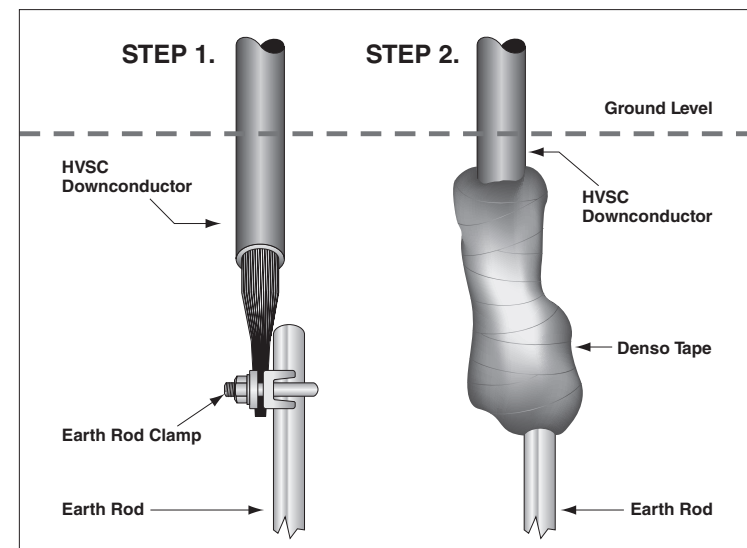


Figure 6.