

**ClampStar®**  
**Recommended Installation Procedure**

ClampStar® is a Connector Corrector that is intended to correct and reinforce the deteriorated electrical and mechanical performance of hot-running, aged or degraded splices and other connectors, clamps and fittings on overhead transmission and distribution conductors or, to increase the performance rating of existing splices and other connectors, clamps and fittings for the purpose of increasing line ampacity that may be presently limited by such devices.

ClampStar® units come individually packaged in sealed plastic bags with their conductor grooves factory-loaded with proprietary CC<sup>2</sup> compound.

Ensure that the correct ClampStar® part number has been chosen, and that it is appropriate for the application. The package label includes the part number and conductor range. That, along with additional information, is also cast into the ClampStar® bodies.

Inspect the conductor over the ClampStar® clamping areas for strand damage and, if present, determine whether the ClampStar® can be installed beyond the damaged area. (ClampStar® can also be used to repair damaged strands but a longer unit may be required).

Thoroughly clean the conductor over the ClampStar® contact areas by wire brushing to remove oxides and other foreign material. If the conductor is severely oxidized or contaminated, apply a light coating of CC<sup>2</sup> to the conductor and wire brush through the compound. Remove excess compound from the conductor contact areas with a clean cloth or wiper.

Inspect the ClampStar® keepers to ensure they are open sufficiently to fit over the conductor. The keepers are spring-loaded to hold them open for installation on the conductor. Approximately center the ClampStar® over the splice or other connector and place the clamps over the conductor. For Rigid Rail (CSR) ClampStar® units, both clamps are applied simultaneously but the clamps of Flexible Rail (CSF) units may be placed over the conductor independently. Recheck the position of the ClampStar® and reposition, if necessary. Make sure the conductor is properly seated in the conductor grooves at both ends and tighten the ClampStar® bolts. Partially tighten all nuts before final tightening. The recommended method of final tightening is in a sequential manner; beginning with the outer bolts on one end, then the outer bolts on the opposite end, etc. until all bolts are tightened to the following recommended torque values:

3/8" – 16:	240 in-lbs ( 20 ft-lbs )	27.1 newton meters ( N-m )
1/2" – 13:	480 in-lbs ( 40 ft-lbs )	54.2 newton meters ( N-m )

If the nuts are shear type, tighten until the outer nut shears. For CSR-0325 ClampStar® units, having 3/8" hardware, use a 9/16" wrench for installation. If it is ever necessary to remove the unit a 3/4" wrench will be needed. For all other ClampStar® units, having 1/2" hardware, a 3/4" wrench is used for installation and a 15/16" wrench if removal is ever necessary.

Make a final visual check to see that the ClampStar® is properly installed and all bolts tightened. It is not necessary for the ClampStar® to be precisely centered over the splice or other connector it is intended to shunt; only that the shunted connector be completely within the ClampStar® window or opening.

For ClampStar® units requiring auxiliary electrical shielding for corona-free performance on transmission lines operating at EHV and UHV system voltages, corona shielding kits are available and include installation instructions.

For ClampStar® installations on dead-ends or suspension clamps where additional mechanical strength may be desired, safety tether kits are available and are supplied with appropriate installation instructions.

Installation kits are available for use with larger CSF ClampStar® units for transmission applications to facilitate installation and balance with standard hot-line tools. These kits include eyebolts that are to be removed after installation and retained for additional ClampStar® installations.

**NOTE: These instructions do not claim to cover all details or variations in equipment or installation, nor to provide for all possible conditions concerning installation, operation or maintenance of this equipment. If further information is desired or if particular problems are encountered which are not sufficiently covered in this guide, contact Classic Connectors, Inc. at the above address or telephone numbers.**

