

Wedge Grounding Connector - W.G.C.



Figure 1

1. INTRODUCTION

TE Wedge Grounding Connector was designed to provide a reliable method of making cable to ground rod connections for residential, industrial, distribution line transformers, telecommunications and similar applications.

2. DESCRIPTION

Each Wedge Grounding Connector consists of the components shown in Figure 1. One component is a "C" shaped spring and the other is a Wedge shaped spring, both of them applying simultaneous normal forces against the cable and the rod. This connector is available in two versions - Bare Copper and Tin Plated Copper (This Tin Plated version must be used for applications with galvanized steel conductors). Both styles contain an oxidation inhibitor that covers the contact surface of the components.

The installation of this connector is simple and is performed using a pair of Channel Lock Pliers (12 inches). The pliers apply a force which will dislocate the Wedge Member and provide a spread of the "C" Member, and then, the spring action of the system will be activated. Moreover, it is possible to check that the installation has been performed correctly by viewing that the Wedge Member has locked into the latch slot of the "C" Member.

3. APPLICATION PROCEDURE

The following steps are recommended to apply a Wedge Grounding Connector for a Rod-to-Cable application (item 3.4) according to the ranges shown in Figure 2. Proceed as described below:

3.1 Check to make sure that the cable and rod sizes match the connector which will be used in the application according to the descriptions below.

Part Number	Rod	Cables	
2133280-1	$\frac{1"}{2}$ $\phi = 12.50 \text{ to } 13.00\text{mm}$	25mm ² COMP/STR	-----
2133280-2		-----	4AWG STR
		35mm ² COMP/STR	2AWG STR
2133283-1	$\frac{5"}{8}$ $\phi = 13.80 \text{ to } 14.50\text{mm}$	6mm ² SOL/STR	-----
		10mm ² SOL	-----
2133283-2		-----	8AWG SOL/STR
		10mm ² STR	6AWG SOL/STR
		16mm ² COMP/STR	-----
2133286-1	$\frac{5"}{8}$ $\phi = 13.80 \text{ to } 14.50\text{mm}$	25mm ² COMP/STR	-----
2133286-2		-----	4AWG STR
		35mm ² COMP/STR	2AWG STR
2133288-1	$\frac{5"}{8}$ $\phi = 13.80 \text{ to } 14.50\text{mm}$	50mm ² COMP/STR	-----
2133288-2			-----

Figure 2

Note 1: TE Part Numbers are cross-referenced in Figure 2. The Rod-to-Cable combinations are engraved in the "C" Body component and marked on the Plastic Bag. For other combinations you should contact your TE Sales Representative.

Note 2: SOL = Solid Wire
 COMP = Compacted Cable
 STR = Stranded Cable

3.2 Mechanically clean the outer surfaces of the conductor and rod using a wire brush or equivalent.

3.3 Remove the connector from the sealed plastic bag.

3.4 Rod-to-Cable combination:

3.4.1 The first step of this application is to drive the ground rod into the ground at it desired location.

Note 3: It is very important avoid hitting the rod, with hammers or other tools, after the connector has been installed.

3.4.2 Next the cable must be bent as shown in Figure 3. The straight portion must be 50mm (2") long.

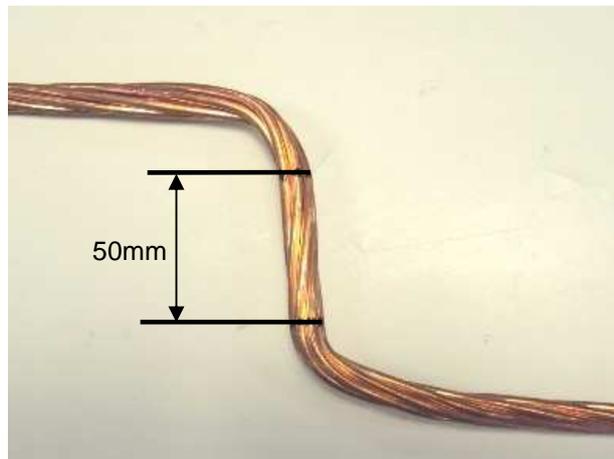


Figure 3

- 3.4.3 Place the "C" Member on the rod and insert the cable into the "C" Member. Insert the Wedge Member to hold the wire in place as shown in Figure 4.

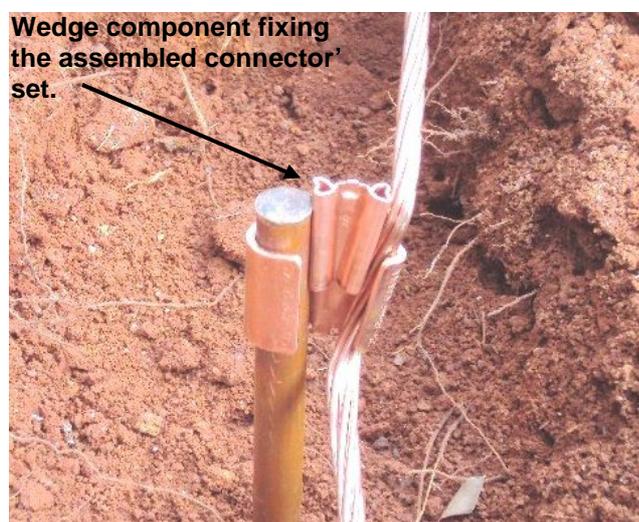


Figure 4

- 3.4.4 Put the Channel Lock Pliers in the correct position, as shown in Figures 5 and 6. One of the jaws must be on the base located at the edge of the Wedge component and other on the base located at the edge of the "C" component.



Figure 5



Figure 6

Note 4: Whenever possible, use combination pliers with 10mm maximum thick jaws.

- 3.4.5 The connection can now be made. Squeeze the pliers until the Wedge member is fully inserted into the "C" member.

Note 5: During the application, to reduce operator effort, the gap of the pliers must be adjusted to facilitate proper handling.

- 3.4.6 Verify that the connector was correctly installed by checking if the Wedge's latch is fully inserted into the "C" member' slot, this will indicate that the assembly is fully locked, as shown in Figure 7.

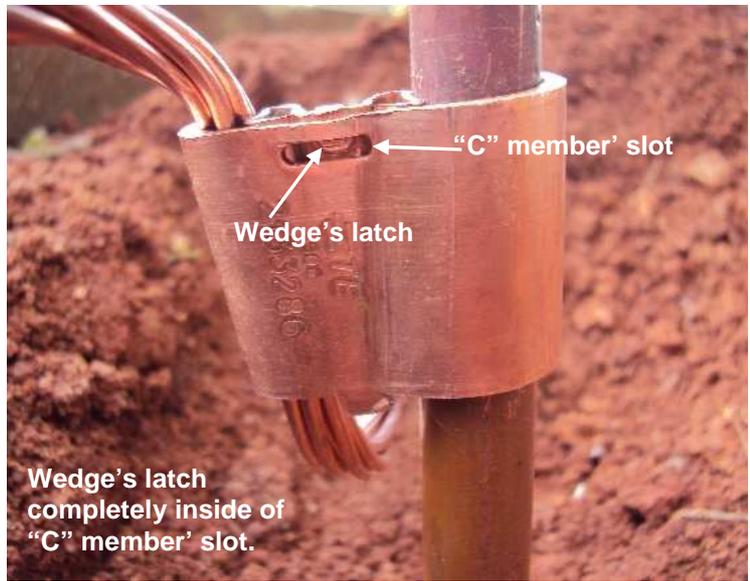


Figure 7

Note 6: If necessary, the latch must be pushed against the "C" component' slot by the use of pliers.

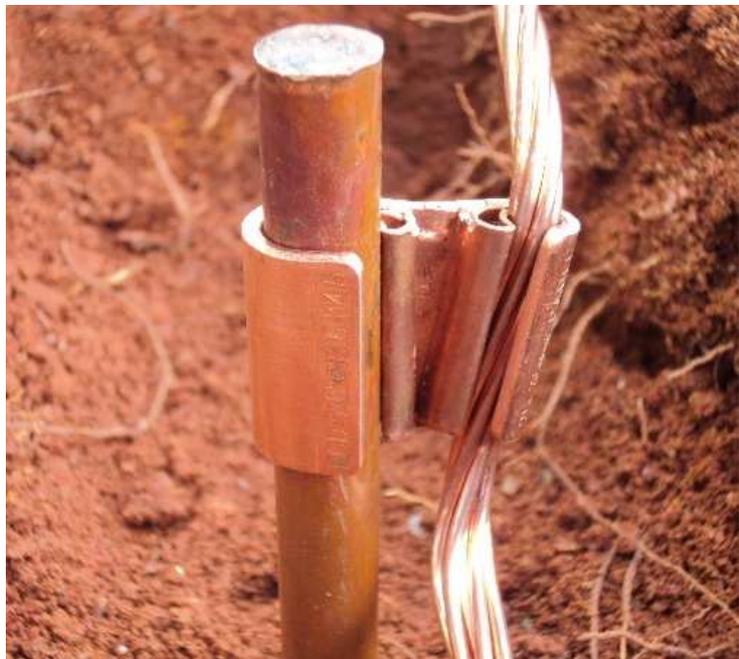


Figure 8

Revision Record					
Rev.	Date	Description	Edited	Checked	Approved
A	17-Feb-2012	Emission	Claudio C. Cassali	Luis O. Mollica Borelli	José A. La Salvia