

Electronics

Instruction Sheet

Rev. B 10-May-2006

Transversal Grounding Connector – T.G.C.



Figure 1

## 1. INTRODUCTION

AMP Transversal Grounding Connector was designed to provide a reliable method of making grounding in residence, industries, telecommunications, line transformers and similar applications.

## 2. DESCRIPTION (See Figure 1)

Each Transversal Grounding Connector consists itself of the components shown in Figure 1. Basically, the installation of this connector is made applying a force in the Wing Member using a parallel jaw pliers (12 inches). This force will produce a deformation in the Wing Member that will provide a spread of "C" Member, and then, the spring action of the system will be activated. Moreover, is possible to check the correct installation through the Locks existent in the "C" Member.

## 3. APPLICATION PROCEDURE

The steps which follow are recommended to apply a Transversal Grounding Connector in a Rod-to-Cable and Cable-to-Cable application (item 3.4 and 3.5 respectively) according to ranges that are shown in Figure 2. Proceed as follows:

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

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Part Number	Rod		Cable	
493643-1	3/4" – Diam. 17,30 to 19,05mm		4AWG STR 25 mm <sup>2</sup> STR	2AWG STR 35 mm <sup>2</sup> STR
493644-1	5/8" – Diam. 14,30 to 15,87mm		4AWG STR 25 mm <sup>2</sup> STR	2AWG STR 35 mm <sup>2</sup> STR
493645-1	1/2" – Diam. 12,00 to 12,70mm		4AWG STR 25 mm <sup>2</sup> STR	2AWG STR 35 mm <sup>2</sup> STR
493645-2	5/8" – Diam. 14,30mm		4AWG SOL	/
1380277-1	5/8" –Diam. 13,80 to 14,30mm		10 AWG SOL 10 AWG STR 8 AWG SOL 8 AWG STR	6 mm <sup>2</sup> SOL 6 mm <sup>2</sup> STR 10 mm <sup>2</sup> SOL
1380278-1	5/8" –Diam. 13,80 to 14,30mm		6 AWG SOL 6 AWG STR	10 mm <sup>2</sup> STR 16 mm <sup>2</sup> SOL 16 mm <sup>2</sup> STR
1599712-1	5/8" –Diam. 14,30 to 15,87mm		4 AWG STR 25mm <sup>2</sup> STR	2AWG STR 35 mm <sup>2</sup> STR
Part Number	Cable		Cable	
493646-1	2AWG STR	35 mm <sup>2</sup> STR	2AWG STR	35 mm <sup>2</sup> STR

## Figure 2

- **Note:** AMP Part Numbers are cross-referenced in Figure 2. The Rod-to-Cable and Cable-to-Cable combinations are engraved in the "C" Body component and also in the Plastic Bag. For other combinations contact your AMP Sales Representative.
- 3.2 Mechanically clean outer surface of conductor/rod with wire brush or equivalent.
- 3.3 Remove the connector from the sealed plastic bag.
- 3.4 Rod-to-Cable combination:
  - 3.4.1 Assemble the cable in the "C" Member, as shown in Figure 3.



Figure 3

3.4.2 Place the "Wing" Member inside the "C" Member, according to Figure 4.



Figure 4

3.4.3 Put the rod in the correct position to initiate the application, in the sequence that is shown in Figures 5 and 6.



Figure 5



Figure 6

3.4.4 After placed the parallel jaw pliers as shown in Figure 7, you can initiate the application.





**Note:** During the application you will need to regulate the gap of the pliers to facilitate the handle. However, maybe you will need to correct the wing if it will be bending out of the "C" member.

3.4.5 When one side of the "Wing" Member to engage first than other one, is necessary to use the "C" Member body as support to the pliers for finalizing the application, according to Figure 8.



Figure 8

3.4.6 Afterwards, make a force using the same pliers as shown in the Figure 9. It will be necessary in some combinations only, but this procedure will help you to guarantee a good connection.



Figure 9

3.4.7 A complete application is shown in Figure 10.



Figure 10

- 3.5 Cable-to-Cable combination:
  - 3.5.1 Follow the same procedure described in item 3.1, 3.2 and 3.3.
  - 3.5.2 Place the cables using the sequence shown in Figures 11 and 12.



Figure 11



Figure 12

3.5.3 Now, put the "Wing" Member inside "C" Body in the sequence shown by Figures 13 and 14.



Figure 13



Figure 14

3.5.4 Place the pliers and start the application. See sequence shown by Figures 15 and 16.



Figure 15



Figure 16

**Note:** During the application you will need to regulate the gap of the pliers to facilitate the handle. Also, you will need to use the "C" Body as support, when one side of "Wing" Member to engage first than other one (see Figure 8).

3.5.5 Using the pliers, make a force to guarantee a good connection as shown in Figure 17.





3.5.6 A complete application is shown in Figure 18.





3.6 For removing the connection you can use the pliers which was used in the application steps, or a different tool (for instance, a screw driver) to be possible performing the "Wing" Member removal as shown in Figure 19.



Figure 19

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0	22-May-2000	Released		
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