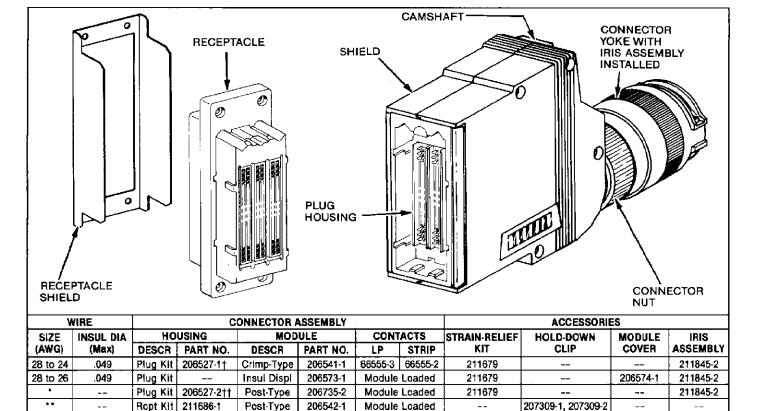


AMP* METAL-SHIELDED CAMMED RECTANGULAR (CR) 120-POSITION CONNECTOR





[†] WITH CAMSHAFT

Fig. 1

1. INTRODUCTION

This instruction sheet (IS) covers the assembly procedures for the AMP CR Series, 120-Position, Metal-Shielded Connector shown in Figure 1. Read these instructions, and those referenced, before assembling the connector, installing accessories, or panel-mounting a connector.



All dimensions presented on this instruction sheet are in inches.

2. **DESCRIPTION (Figure 1)**

Strain Relief Kit 211679 encloses the plug housing which is then mated with CR Receptacle Housing Kit 211686.

The strain relief kit consists of two symmetrical shields, a threaded connector yoke, a connector nut, four thread-forming screws, and two clip-on strips which ground the shield to the panel.

The connector yoke, which houses the cable, can be installed in five different positions.

The receptacle kit includes a re-ceptacle shield, a receptacle housing, two keying plugs, and six thread-forming screws.

The receptacle housing accepts three 40-position receptacle modules, and the plug housing accepts three 40-position plug modules.

A camshaft is supplied with the plug housing when crimp-type or insulation displacement modules are installed. A camshaft is NOT supplied with a plug housing when post-type plug modules and flat cable are installed. A cam-shaft is included in the applicable shield and strain-relief kit. Receptacle modules are fully-loaded with .025-in.-square posts. Plug modules are designed to accept crimp-type contacts, insulation displacement-type contacts, and .025-in, square posts.

Accessories for the connectors include keying plugs (plug housings), hold-down clips, and module covers.

^{††} WITHOUT CAMSHAFT **RIBBON (Flat) CABLE CONNECTORS**

^{**} FLAT CABLE CONNECTORS OR WIRE (Applicable for .025-in, Square Posts)

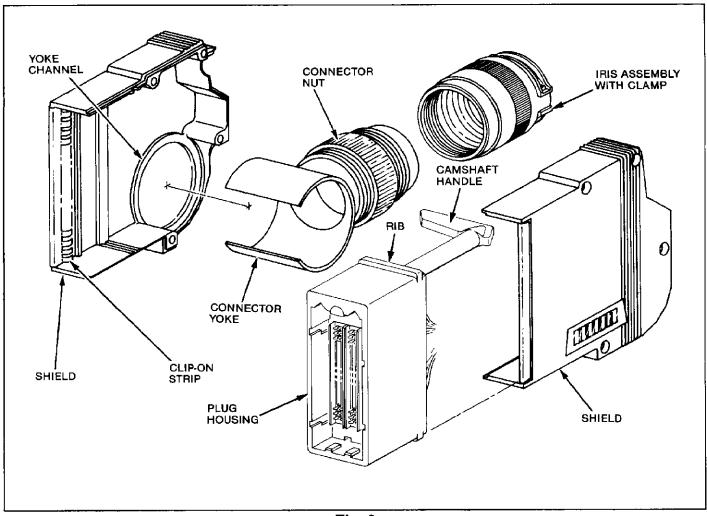


Fig. 2

3. INSTALLING STRAIN-RELIEF KIT (Figure 2)

For information concerning AMP CR contacts and installation of the modules, refer to AMP instruction sheet IS 7669.

Before installing the strain-relief kit, feed the cable through the connector yoke (and iris assembly, when used) and terminate the contacts into the modules using one of the three types of termination listed in Figure 1. Load the three modules into the plug housing and proceed as follows:

- 1. Insert plug housing into one shield of the strain relief, making sure that the camshaft and housing ribs fit into their respective slots.
- 2. Place the threaded connector yoke into its channel in the shield.
- 3. Insert the remaining shield onto connector and guide the shield over the ribs of the plug housing. Secure shields with the four screws.

NOTE

Before tightening the four screws, make sure that the cable is fed properly through the threaded yoke and that there is no strain on the contacts.

4. Tighten the connector nut onto the yoke to the desired position.

4. INSTALLING SHIELDED STRAIN RELIEF AND IRIS ASSEMBLY

Iris Assembly 211845-2 is used only with Shielded Strain Relief 211679-2. The iris assembly provides clamping and cable shield grounding to the shielded strain relief. The assembly procedure is as follows:

- 1. Slide iris assembly onto cable (1.070 min —1.103 max).
- 2. Strip cable to dimensions shown in Figure 3.
- 3. Terminate contacts, modules and housings as described in Paragraph 3, INSTALLING STRAIN RELIEF KIT.

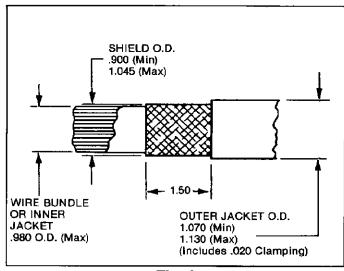


Fig. 3

- 4. Slide iris forward and turn onto connector yoke. Turning the iris onto the yoke tightens the iris springs onto the cable shield.
- 5. After turning the iris tightly onto the connector yoke, turn the two setscrews until snug, thereby securing the iris assembly to the yoke.
- 6. Install cable clamp and tighten onto outer jacket of cable.

5. INSTALLING RECEPTACLE KIT

- 1. Load the three modules into the receptacle housing according to the instructions in IS 7669.
- 2. Load the keying plugs into the receptacle housing. See Paragraph 6, INSTALLING KEY-ING PLUGS.
- 3. Insert receptacle housing into panel cutout.
- 4. Slide receptacle shield over receptacle housing.
- 5. Secure housing and shield to panel with the appropriate hardware.

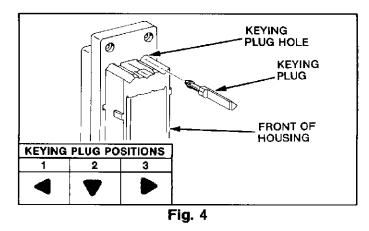
6. INSTALLING KEYING PLUGS (206545-1) (Figure 4)

There are two keying plug holes in each connector, and three positions in which each keying plug can be placed. Determine keying position required and proceed as follows:

- 1. Turn connector so FRONT is facing you.
- 2. Align keying plug with keying plug hole. Insert plug straight into hole until it bottoms.

NOTE

Make sure keying plugs in one connector are rotated 180° from those in mating connector.



7. INSTALLING HOLD-DOWN CLIPS (Figure 5)

The hold-down clips are designed to secure plug-on connectors onto post-type receptacle modules. The clips can be installed when modules are installed, or attached to an assembled connector as follows:

- 1. Remove three receptacle module screws from each end of receptacle.
- 2. Align clip flanges with receptacle flanges. Insert clips into receptacle and secure each with three receptacle module screws.

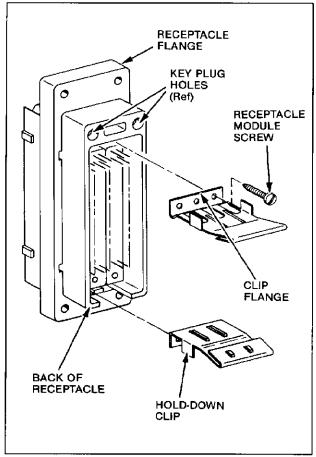


Fig. 5

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- 3. Install plug-on connectors onto contact posts, making sure hold-down clips are holding connector in place.
- 4. To remove a connector, spread open hold-down clips to allow connector clearance.

NOTE

Proper hold-down action is assured only when the selected plug-on modules are longer than the connector modules. To assure hold-down action, use 44-position AMPMODU* Mod IV part number 3-87456-8 or 1-87835-5 (with strain-relief/pull tab) or similar plug-on modules designed to piggyback onto .025-in. square posts with an overall length of 2.200 ± .010.

8. PANEL MOUNTING

The receptacle connector is designed to be mounted to the FRONT of a panel. Refer to the dimensions shown in Figure 6, and make the panel cutout. Mount connector with No. 4 screws, lock washers, and nuts.

NOTE

The layout in Figure 6 is applicable for standard receptacle connectors. Use AMP Customer Drawings for information pertaining to all versions NOT listed in Figure 1 of this instruction sheet. If you do NOT have the applicable AMP Customer Drawing, consult your local AMP representative.

AMP METAL-SHIELDED CR CONNECTORS

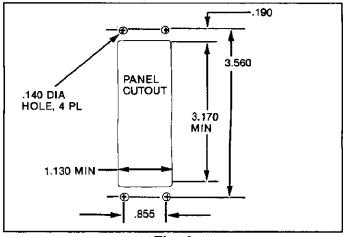


Fig. 6

9. ENGAGING CONNECTORS

Align connectors so that polarized ribs are started into polarized slots. Push plug onto receptacle and rotate camshaft handle in a CLOCKWISE direction 1/4 turn to fully mate and lock connectors.

10. DISENGAGING CONNECTORS

Rotate camshaft handle in a COUNTERCLOCKWISE direction 1/4 turn and pull plug from receptacle.