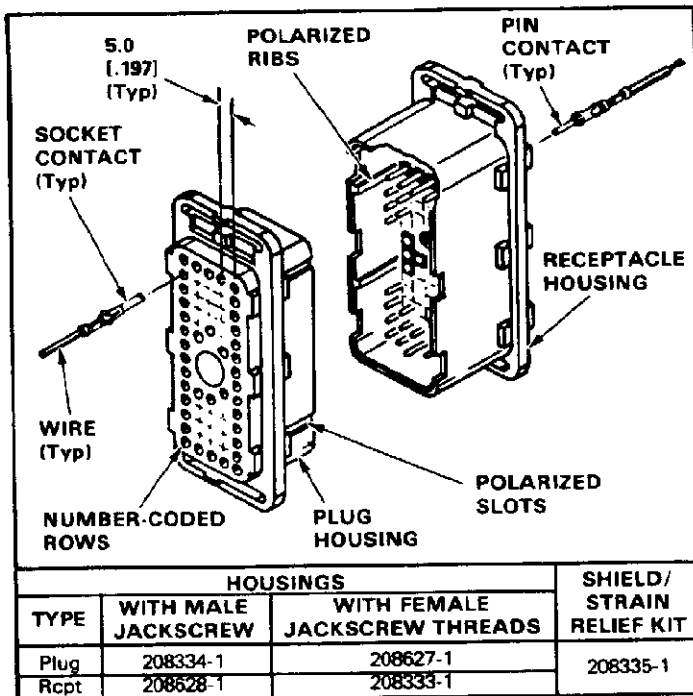


AMPAMP INCORPORATED
Harrisburg, Pa. 17105**AMP ★ 62-POSITION METRIMATE CONNECTORS**

Instruction Sheet

IS 7759

RELEASED 12 · 22 · 83

**Fig. 1****1. INTRODUCTION**

This Instruction Sheet (IS) covers assembly procedures for the AMP 62-Position Metrimate Connectors and Shield/Strain Relief listed in the chart in Figure 1.

NOTE

All dimensions presented on this instruction sheet are in millimeters (mm) with equivalent inch dimensions in brackets.

Read these instructions carefully before using the product.

2. DESCRIPTION (Figure 1)

Each plug and receptacle connector is designed with 62 corresponding contact cavities on 5-mm [.197-in.] contact centerlines. The connector housings will accept AMP Type II, Type III(+), Type VI, Type X, OPTIMATE★, or Subminiature COAXICON★ contacts.

Each connector housing contains either a male jackscrew or female jackscrew threads. The connectors also feature polarizing ribs and corresponding slots for proper mating.

Contact cavities are number-coded at the beginning and at the end of each row to provide circuit identification.

A single shield/strain relief kit is available for connector housings.

The plug and receptacle housings may be used for free-hanging or panel-mounted applications.

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3. CONTACTS**A. Selection**

Determine wire or cable size and insulation diameter to be used. Wire range for the connectors is 0.05 mm (30 AWG) through 2.00 mm (14 AWG). Maximum insulation diameter is 3.81 mm [.150 in.] Refer to selection charts of AMP Instruction Sheet IS 1379 for applicable contacts and appropriate wire.

B. Crimping

Strip-form contacts are designed to be crimped with AMP semi-automatic or automatic machines. Loose-piece contacts are designed to be crimped with an applicable AMP hand crimping tool. Tooling for contacts is listed in the selection charts of IS 1379. Crimping procedure is given in instructional material packaged with crimp tooling.

C. Contact Insertion

To insert crimped contacts, grip insulation of wire directly behind contact insulation barrel and align contact with BACK of desired contact cavity. Insert contact straight into cavity until bottomed. Pull back lightly on wire to ensure that contact is locked in place.

An insertion tool is normally not needed to insert the contacts into housings. If a tool is required when wire bundles are too large, or if small, fragile wires are being used, AMP Insertion Tools 211300-1 and 91002-1 may be employed provided the wire insulation diameter is 1.78 mm [.070 in.] or less. Refer to IS 6736 for tool 211300-1, and to IS 7397 for tool 91002-1.

D. Contact Extraction

AMP Extraction Tool 305183 is designed to remove both pin and socket contacts (except OPTIMATE) from the housings. See IS 1216, packaged with the tool, for proper extraction procedure. If extracting an OPTIMATE contact, use Extraction Tool 91148-1. Refer to IS 2837 for OPTIMATE extraction procedure.

4. SHIELD AND STRAIN RELIEF ASSEMBLY (Figure 2)

The shield/strain relief kit referred to in Figure 1 may be used on either, or both, connectors. The kit consists of two shield-halves with three self-threading screws, and a two-piece strain relief cable clamp with two self-threading screws.

The shield-halves may be oriented on the connector in two positions, 180° apart. The cable clamp may be placed in any of three positions within the shield to provide a 90°, 135°, or 180° cable outlet.

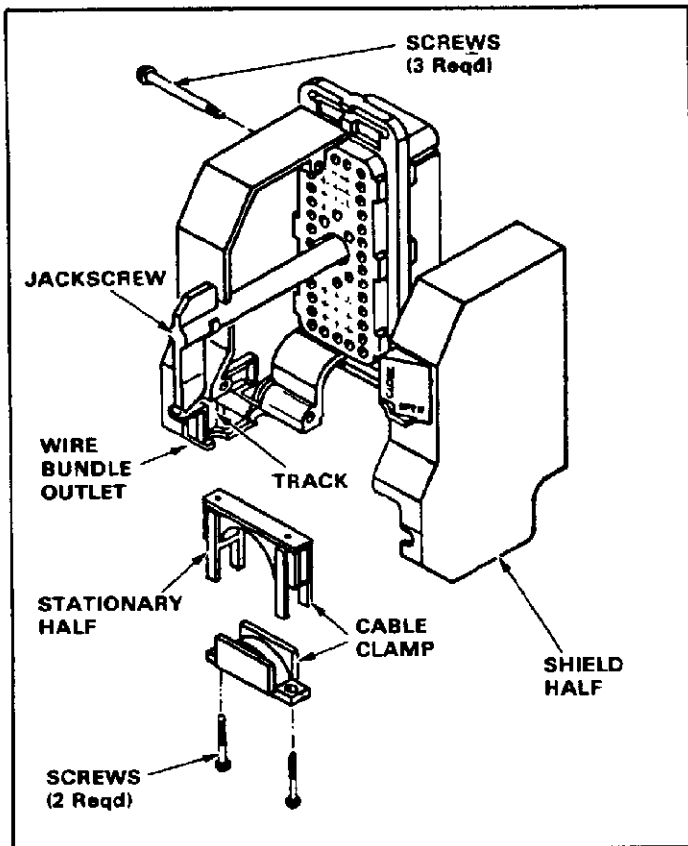


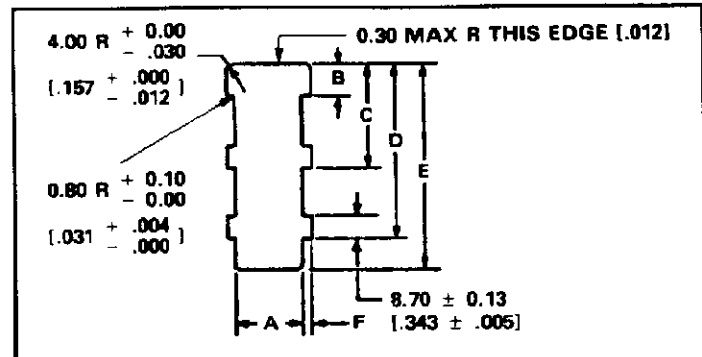
Fig. 2

Assembly is as follows:

1. Gather wires into a bundle, ensuring that they are evenly distributed around the jack-screw. Install both halves of the cable clamp on the bundle and start the two screws into the cable clamp to temporarily hold it together.
2. Slide one shield-half onto connector with wire bundle outlet properly positioned against bundle.
3. Determine which cable outlet position will be used (90° , 135° , or 180°). Insert stationary half of cable clamp into desired track in shield-half.
4. Slide remaining shield-half onto connector and simultaneously guide cable clamp into appropriate track. Secure shield-halves with the three screws.
5. Grasp wire bundle and push a small amount of wire back into the shield to relieve strain on contacts. Alternately tighten cable clamp screws until secure.

5. PANEL MOUNTING (Figures 3 and 4)

The plug or receptacle may be either FRONT or REAR



PANEL THKNS	(CONN) POSN ON PANEL	DIMENSION					
		A	B	C	D	E	F
0.8 to 1.4 [0.031 to 0.055]	(PLUG) Rear or Front (RCPT) Rear	29.9 [1.177]	13.3 [0.524]	41.7 [1.642]	68.0 [2.677]	82.7 [3.256]	2.6 [0.102]
	(RCPT) Front	35.4 [1.394]	15.9 [0.626]	44.3 [1.744]	70.2 [2.764]	85.4 [3.362]	2.6 [0.102]
1.4 to 2.0 [0.055 to 0.078]	(PLUG) Rear or Front (RCPT) Rear	32.2 [1.268]	13.3 [0.524]	41.7 [1.642]	68.0 [2.677]	82.7 [3.256]	1.6 [0.063]
	(RCPT) Front	37.7 [1.484]	15.9 [0.626]	44.3 [1.744]	70.2 [2.764]	85.4 [3.362]	1.6 [0.063]

Fig. 3

panel-mounted using the snap-in feature or using screws. Determine panel thickness and which connector-half will be mounted.

Make a panel cutout to the dimensions provided in Figure 3 and proceed as follows:

1. For FRONT mounting, align connector with REAR of panel. For REAR mounting, align connector with FRONT of panel.
 2. Orient locking spring with wide end of panel cutout.
 3. Insert connector straight into cutout and slide downward until locking spring engages.
 4. Remove connector by prying locking spring away from panel with a small screwdriver. Slide connector upward and pull straight out of panel cutout.
- ## 6. ENGAGING CONNECTORS
1. Align connectors so that polarized ribs are started into corresponding slots.
 2. Turn jackscrew handle CLOCKWISE to fully mate connectors.

NOTE

Disengagement of connectors is achieved by turning the jackscrew handle COUNTER-CLOCKWISE.

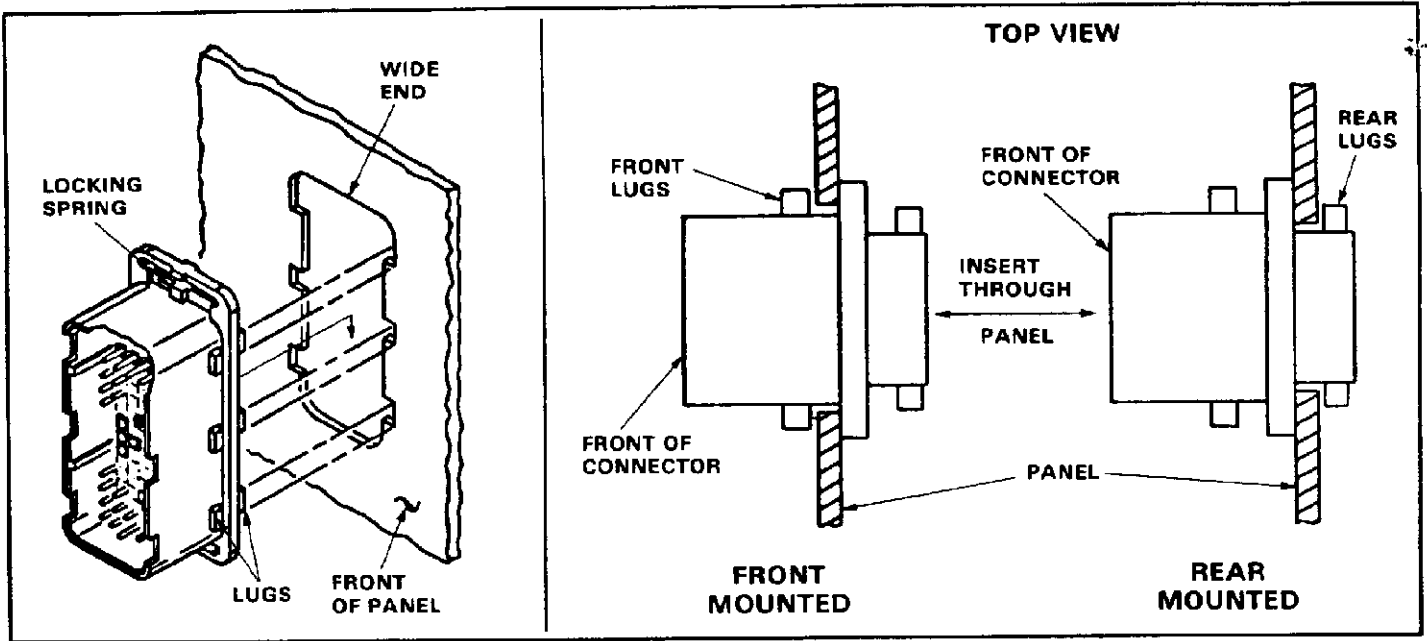


Fig. 4