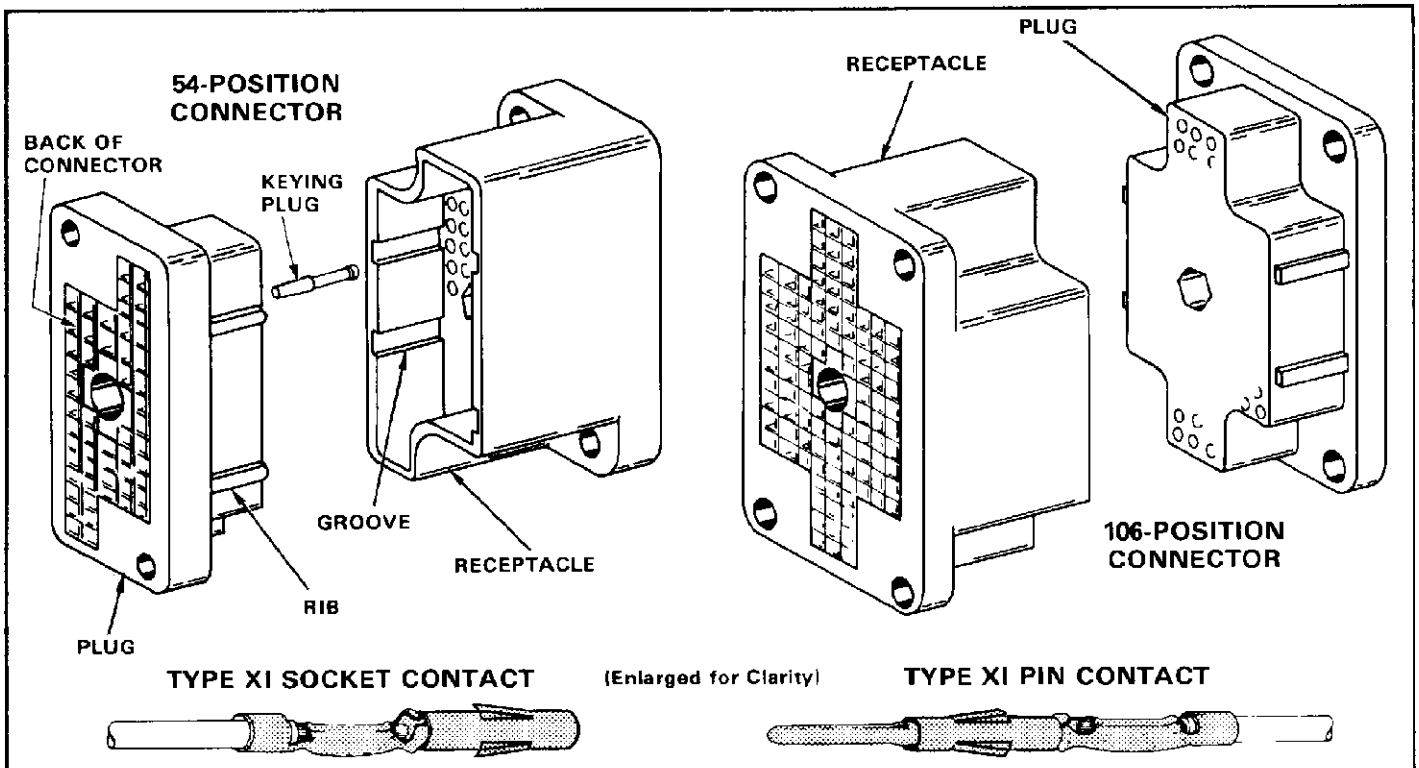
AMP INCORPORATED
Harrisburg, Pa. 17105

AMP* HIGH DENSITY RECTANGULAR (HDR) 54- AND 106-POSITION CONNECTORS

Instruction Sheet
IS 7361
RELEASED 3-10-82



NO. OF CAVITIES	CONNECTOR		SHIELD KIT	CONTACTS		JACKSCREW		GUIDE ASSY	
	PLUG	RCPT		PIN	SOCKET	MALE	FEMALE	PIN	SOCKET
54	203804	203803	203814	203816	203802	203880-1 203880-2*	203879-1	203881	203882
106	204260	204259	204337	203874	203875	203880-1 203880-2*	203879-1	203881	203882

*LONG JACKSCREW MUST BE USED WITH SHIELD.

Fig. 1

1. INTRODUCTION

This instruction sheet (IS) covers the assembly of the AMP HDR Series Connectors with 54 and 106 positions.

The applicable Type XI contacts, shield kits, jackscrews, and guide pins and sockets are listed in Figure 1. Read these instructions thoroughly before assembling the connectors.

NOTE

All dimensions on this instruction sheet are in inches.

2. DESCRIPTION

The connectors are available in diallyl phthalate (blue) or phenolic (black) and can be used with jackscrew assemblies. Each connector is polarized to ensure proper mating.

A shield kit is available for the connectors and can be attached to either plug or receptacle with guide pins and suitable hardware. The hardware is also used to attach the connector to a panel.

NOTE

Both plug and receptacle connectors will accept pin or socket contacts; however, it is recommended that pin contacts be installed in the receptacle connector to protect the contacts.

The shield kit consists of one or two cable shields, a strain-relief clamp, and attaching hardware.

3. CONTACT CRIMPING

Contacts 203874 and 203875 accept wire sizes 30 AWG through 26 AWG with a maximum insulation range of .048 in., while Contacts 203802 and 203816 accept wire sizes 24 AWG through 20 AWG with a maximum insulation range of .062 in. These contacts are available in strip or loose piece.

AMP Hand Crimping Tools 90223-5 (IS 7400) and 90260-1 (IS 7484) are designed for crimping the loose-piece contacts. Read the instructions packaged with the tools for wire size, insulation diameter, wire crimp length, and proper crimping procedures.

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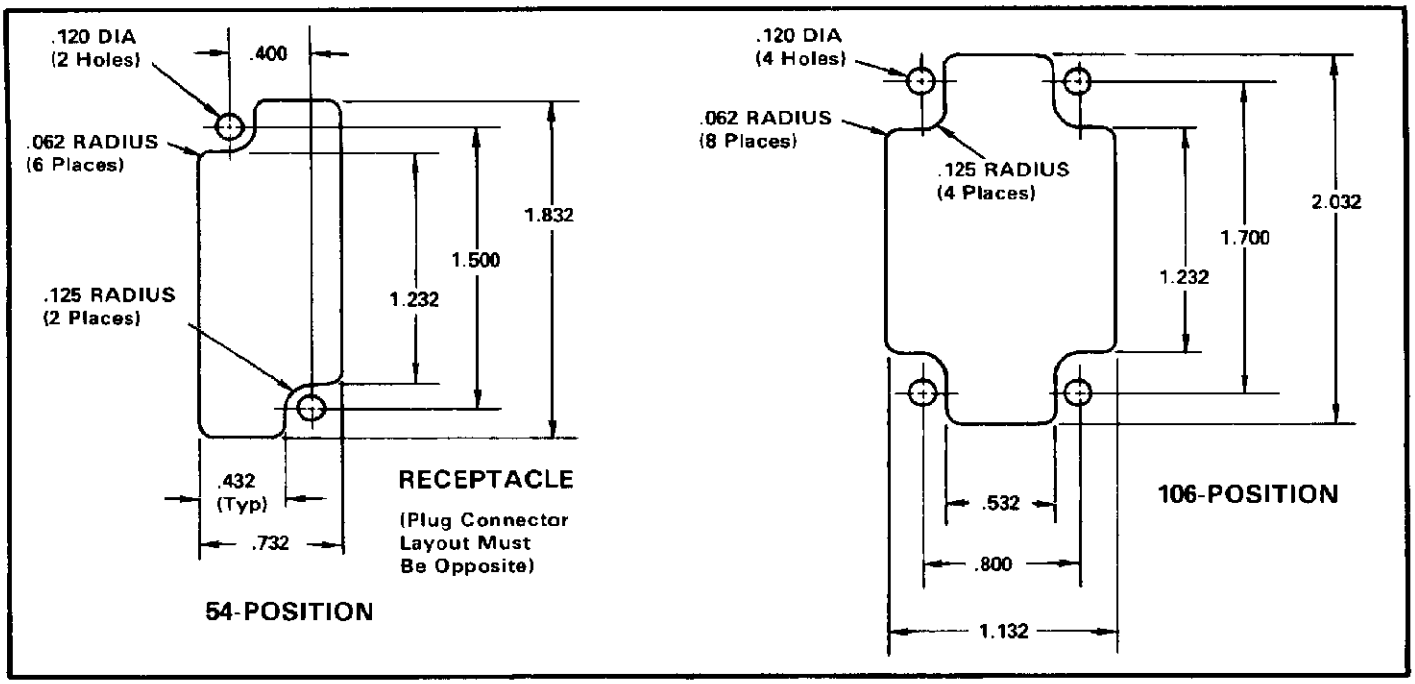

Fig. 2

4. CONTACT INSERTION

AMP Insertion Tool 91042-1 is recommended for inserting pin and socket contacts into the connectors. Read the instructions (IS 7369) packaged with the tool for insertion procedures.

NOTE *When the connector is not fully loaded, the contacts should be evenly distributed throughout the connector.*

5. CONTACT EXTRACTION

AMP Extraction Tool 91038-3 is recommended for extracting pin and socket contacts from the connectors. Read the instructions (IS 7357) packaged with the tool for extraction procedures.

6. GUIDE PINS AND SOCKETS

Guide pins and sockets are used to ensure proper mating of the connectors. The pins and sockets can be used on either the plug or receptacle connectors. The connectors can either be front- or back-panel mounted. If guide and socket pins are used when back-panel mounting, the panel thickness must NOT exceed .093 in. to ensure proper mating of the pins and sockets.

NOTE *If a shield kit is used, the guide pins and sockets are used to secure the cable shields to the connector.*

7. PANEL CUTOUT

Refer to Figure 2 and construct the panel layout using the appropriate dimensions.

8. JACKSCREW INSTALLATION (Figure 3)

Install the fixed jackscrew to the connector mounted to the chassis or panel and the turntable jackscrew to the free-hanging connector.

9. SHIELD ASSEMBLY

The shield kit for the 54-position connector is a three-piece assembly, while for the 106-position connector it is a two-piece design. The shield kit is applicable to the free-hanging connector only. Attach the shields as follows:

A. 54-Position Shield

1. Attach the shield without the strain-relief section to the connector using the guide pins or screws.
2. Split the wire bundle evenly on each side of jackscrew and place the wire bundle into the wire channel at the cable exit.

NOTE *Be sure to allow enough slack in wire so there is no strain on the contacts.*

3. Place the other shield onto the connector and secure it with screws and nuts.
4. If the wire bundle is between 1/4 in. and 1/2 in., attach the strain-relief clamp with the clamp opening around the bundle. For smaller wire bundles, install the clamp with its flat side against wire.

B. 106-Position Shield

1. Split the wire bundle evenly on both sides of jackscrew.

2. Align the body of shield with back of connector, then turn wires in direction of strain-relief opening.

3. Position shield on connector and place wires in strain-relief channel.

4. Secure shield to connector with guide pins, sockets, and screws.

5. Place strain-relief clamp over wires. Push wires into connector to allow sufficient slack and secure clamp with nuts and screws packaged with kit.

10. KEYING PLUGS (Figure 1)

Keying Plug 205120-1 is designed for use in plug connectors.

1. Determine applicable cavity to be keyed and align the tapered end of the keying plug with the FRONT of connector.

2. Insert keying plug straight into the cavity until it bottoms.

3. If removal of the keying plug is necessary, insert a thin tool into BACK of applicable cavity, and push the plug out the FRONT of connector.

11. CONNECTOR MATING

The grooves and ribs of the connectors are designed to mate with each other. Orient the grooves and ribs and insert the plug connector into the receptacle connector until bottomed. Make sure the jackscrew assemblies are aligned before bottoming the connectors. Tighten the turntable jackscrew clockwise to secure the connectors.

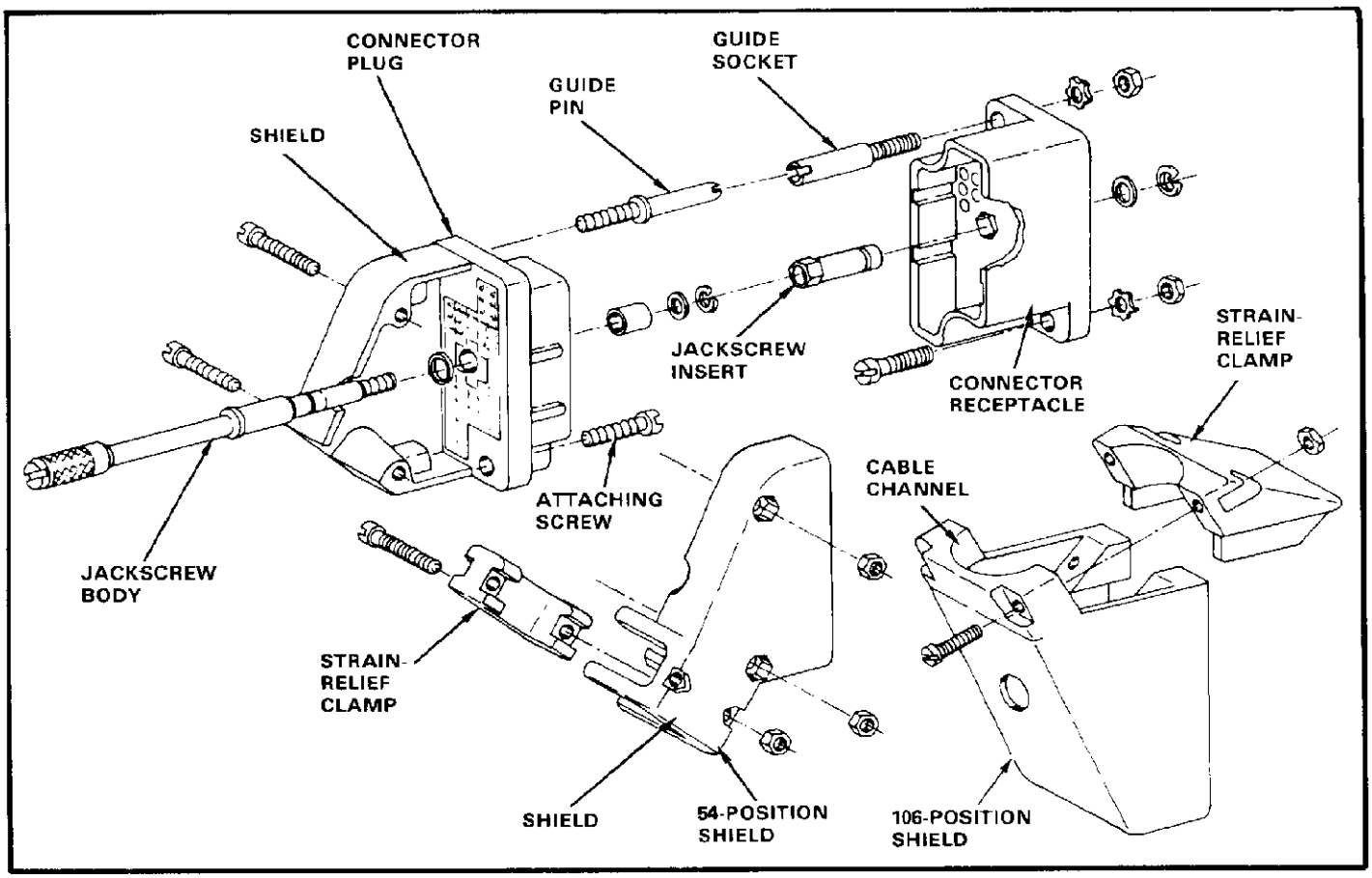

Fig. 3