

AMPAMP INCORPORATED
Harrisburg, Pa. 17105AMP★ HIGH DENSITY
RECTANGULAR (HDR)
95-POSITION CONNECTORInstruction Sheet
IS 7375

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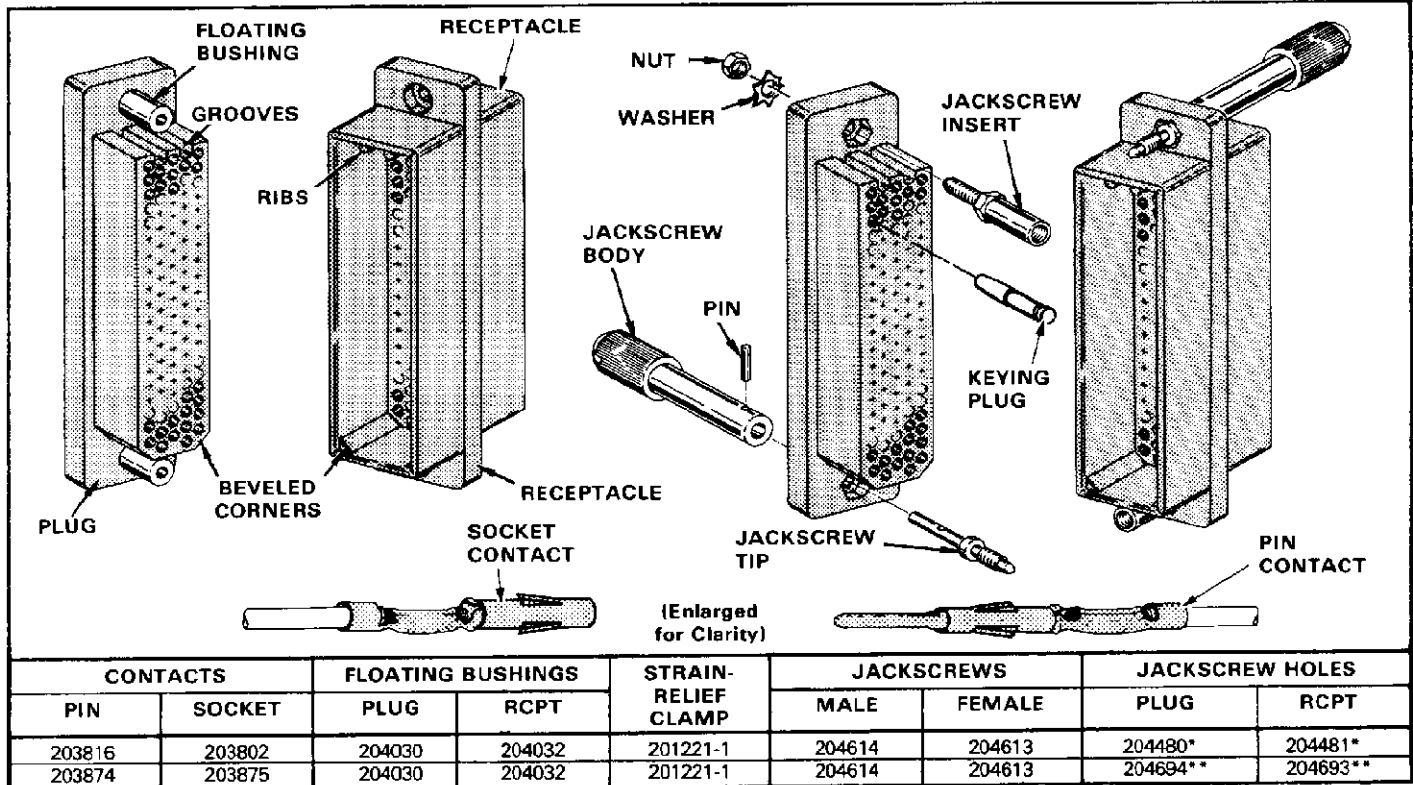


Fig. 1

1. INTRODUCTION

This instruction sheet (IS) covers the assembly of the AMP 95-Position HDR Series Connector.

The applicable Type XI contacts, jack screws, floating bushings, and strain-relief assembly 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 plug and receptacle connectors are polarized with mating ribs and grooves at one end and beveled corners at the other end. Make certain the connectors are properly oriented before inserting the contacts, so that each contact is inserted in the proper cavity.

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.

3. CONTACT CRIMPING

Contacts 203874 and 203875 accept wire sizes 30 AWG through 26 AWG with a maximum insulation diameter of .048 in., while contacts 203802 and 203816 accept wire sizes 24 AWG through 20 AWG with a maximum insulation diameter 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.

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.

General Procedures

1. Grasp the insulation barrel of the contact with the insertion tool.
2. Insert the contact into the back of the connector until the contact bottoms in the cavity.

- Remove the insertion tool. Pull back lightly on the wire to be sure the contact is locked in the cavity.

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.

General Procedures

- Align the hollowed portion of the extraction tool tip with the applicable contact in the FRONT of connector.
- Slide the extraction tool tip over the contact and into the connector until bottomed.
- Depress the tool handle to push contact out of BACK of connector.

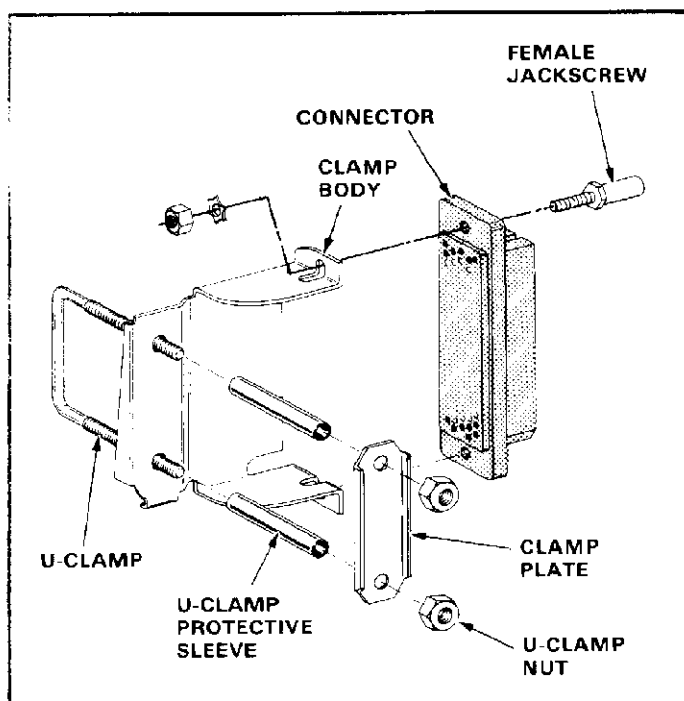


Fig. 2

6. ATTACHING HARDWARE

A. Floating Bushings

Floating bushings are designed to compensate for misalignment between mounted connectors. The bushings are mounted in the plug connector as shown in Figure 1.

B. Jackscrew Assemblies

The fixed female and turnable male jackscrews are interchangeable in the connectors. The fixed female jackscrew should be installed on the connector mounted to the chassis, panel, or when a strain-relief clamp is desired. The turnable male jackscrew is normally mounted to the free-hanging connector.

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C. Strain-Relief Clamp

The strain-relief clamp can only be used on the plug or receptacle connector which is using the female jackscrews.

General Installation Procedures

- Attach the clamp body to the BACK of the connector using the female jackscrews.
- Slide the U-clamp through the holes in the clamp body. Make sure the wires go through the center of the U-clamp.
- Slide protective sleeves over threads of the U-clamp. Keep wires in center of clamp.
- Push wires into connector to provide slack and attach clamp plate to the protective sleeves with the clamp nuts. Tighten nuts to secure wires between clamp body and clamp plate.

7. PANEL CUTOUT

The plug and receptacle connectors must be FRONT mounted to ensure proper mating of the contacts. Refer to Figure 3 for the cutout dimensions.

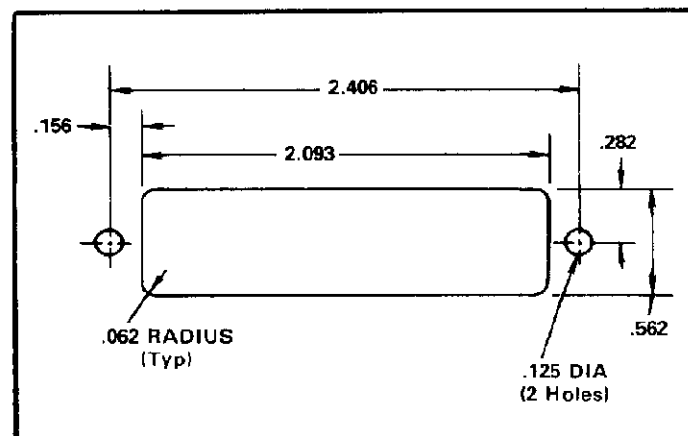


Fig. 3

8. MATING CONNECTORS

The ribs and grooves of the connectors are designed to mate with each other. Make sure the connectors are properly mated and secure with attaching hardware.

9. KEYING PLUGS (Figure 1)

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

- Determine applicable cavity to be keyed and align the tapered end of the keying plug with the FRONT of connector.
- Insert keying plug straight into the cavity until it bottoms.
- 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.