

Figure 1

## 1. INTRODUCTION

This instruction sheet covers contact and wire selection, application tooling, and attaching hardware for AMPLIMITE High Density (HDP-20) Connectors shown in Figure 1. Read these instructions thoroughly before assembling any connectors.

### NOTE



All dimensions on this document are in metric units [with U.S. customary units in brackets]. Figures and illustrations are for reference only and are not drawn to scale.

Reasons for reissue of this document are provided in Section 6, REVISION SUMMARY.

## 2. DESCRIPTION (Figure 1)

The connectors are designed for rear insertion and extraction of size 20, precision formed contacts. The HDP-20 connectors feature steel shells and black polymer inserts with plastic contact retention tines.

## 3. CONTACTS (Figure 2)

### 3.1. Selection

Refer to the table in Figure 2, and select strip or loose-piece pin and socket contacts according to the wire size and insulation diameter to be used.

Notice that each contact cavity is number-coded (front and back). Make certain that the cavities of the plug are a mirror image of the receptacle. Insert pin contacts into the back of plug and mating socket contacts into the back of the receptacle. If all cavities are not used, distribute contacts evenly throughout connector.

### 3.2. Crimping

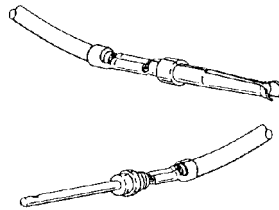
Strip-form contacts are designed to be crimped with a semi-automatic or automatic machine and applicator. Consult your local TE Representative for assistance in selecting the machine and applicator for your application.

Loose-piece precision formed contacts are designed to be crimped with the hand crimping tools listed in the table in Figure 2. Refer to the instruction sheet packaged with the tool, for specific crimping procedure and tool inspection information.

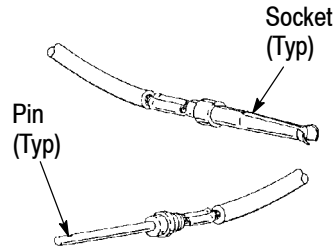
### 3.3. Insertion and Extraction

Insertion/Extraction Tools 91067-2 (Instruction Sheet 408-7508) and 91285-1 (Instruction Sheet 408-9404) are designed for both pin and socket contacts. The 91067-2 tool is used with contacts for wire size 24 to 20 AWG and the 91285-1 tool is used with contacts for wire size 28 to 24 AWG.

*Precision Formed Contact  
With  
Insulation Support*



*Precision Formed Contact  
Without  
Insulation Support*



CONTACT DESCRIPTION	WIRE SIZE RANGE (AWG)	INSULATION DIAMETER (MAX)	HAND TOOL (DOCUMENT)
Precision Formed Contact With Insulation Support	28-24	1.02 [.040]	91503-1 (408-8547) or 58448-2 (408-9357)
	24-20	1.52 [.060]	
Precision Formed Contact Without Insulation Support	28-24	1.73 [.068]	91548-1 (408-8547)
	24-20	1.73 [.068]	

Figure 2

**4. HARDWARE**

A shield and cable clamp assembly is used with the connector to house the cable or wire projecting from the rear of the connector and for strain relief of the cable or wires. For additional information concerning the use of the shield and cable clamp assembly, refer to Instruction Sheet 408-7555.

Shielded cable clamp kits for AMPLIMITE HDP-20 connectors used with braid and foil-shielded cables are available in all connector sizes. The cable clamps may be used with latching blocks (208101, 745245, and 745286) and spring latches (745255-1) for panel-mounted or free-hanging applications. Refer to Instruction Sheet 408-6609 for additional information.

A male screw retainer kit (5205980-1) and a female screwlock kit (5205817-1) are used to secure mating connectors in panel-mounted or free-hanging applications. Refer to Instruction Sheet 408-7837 for information.

A slide latch post kit (5206514-1) and a slide latch clip kit (5206942-1) are also used to secure mating connectors in panel-mounted or free-hanging applications. For additional information, refer to Instruction Sheet 408-6551.

Slide latch post kits and slide latches for all AMPLIMITE HDP-20 connector sizes are available for panel-mounted and free-hanging applications. Refer to Instruction Sheet 408-6551 for slide latch and slide latch post application procedure and information.

**5. PANEL CUTOUT**

Before making the panel cutout, refer to Application Specification 114-40030 to determine the number of positions in the connector, whether it will be used with a cable clamp or side latch, and what the required dimensions and clearances must be.

**6. REVISION SUMMARY**

Since the previous release of this sheet, the following changes were made:

- Updated document to corporate requirements