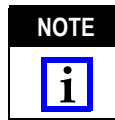


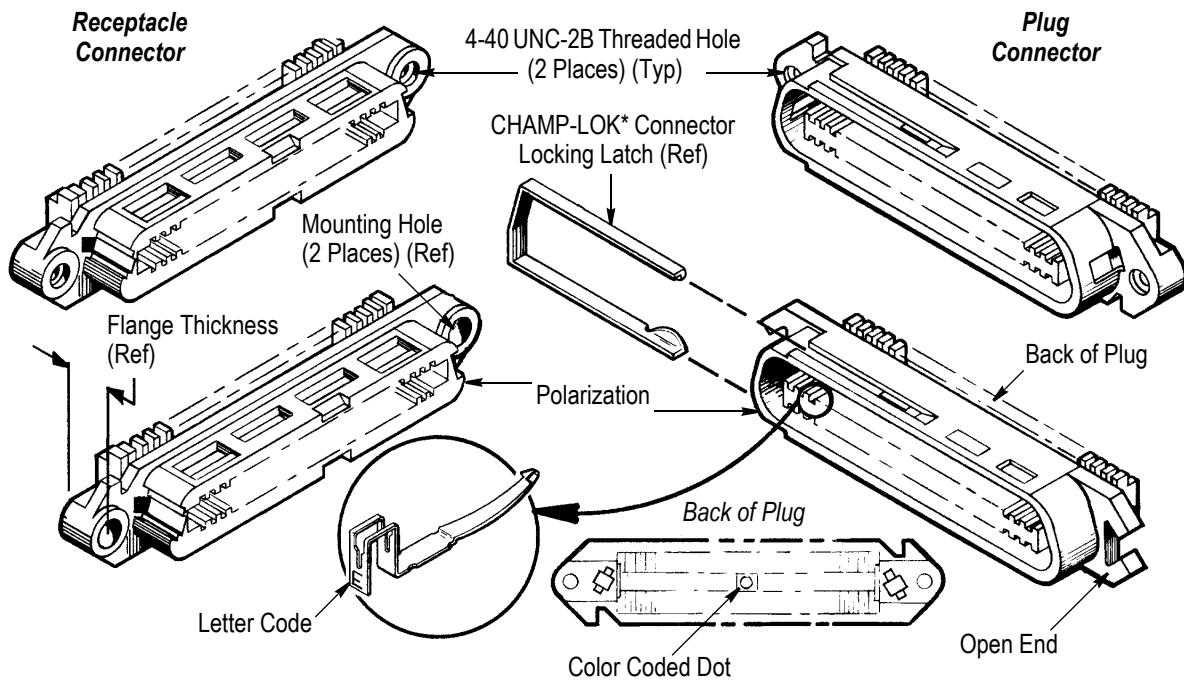
**1. INTRODUCTION**

CHAMP connectors listed in Figure 1 are designed for cable-to-cable (two free-hanging connectors) and cable-to-panel (one free-hanging and one panel-mounted connector) applications. Read this and all referenced material before starting assembly.



Dimensions in this instruction sheet are in metric units [with U.S. customary units in brackets]. Figures are not drawn to scale.

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



WIRE SIZE (AWG) ■ AND TYPE	CONTACT			CONNECTOR				
	LETTER CODE	COLOR CODED DOT	CONTACT POSITION	RECEPTACLE			PLUG	
				With THREADED HOLES	With THICK FLANGE	With THIN FLANGE	With THREADED HOLES	With OPEN ENDS
22 Solid 22 Stranded	C	Green	14	—	—	—	552300-1	—
			24	552305-1	—	2-552322-1	—	552317-1
			36	—	—	—	—	552318-1
			50	552064-1	—	2-552324-1	552173-1	552319-1
			64	552307-1	—	—	552303-1	552320-1
24 and 26 Solid 24 Stranded	B	Blue	14	552312-1	—	2-552271-1	552282-1	552270-1
			24	552313-1	552273-1	2-552273-1	552283-1	552272-1
			36	552314-1	—	2-552275-1	552284-1	552274-1
			50	229975-1	—	2-552001-1	229974-1	552032-1
			64	552315-1	—	2-552277-1	—	552276-1

■ Wire insulation diameter of 1.14 mm [.045 in.] (max) is acceptable for contacts with letter codes C and B.

Figure 1 (Cont'd)

WIRE SIZE (AWG) ■ AND TYPE	CONTACT			CONNECTOR				
	LETTER CODE	COLOR CODED DOT	CONTACT POSITION	RECEPTACLE			PLUG	
				With THREADED HOLES	With THICK FLANGE	With THIN FLANGE	With THREADED HOLES	With OPEN ENDS
26, 27, or 28 Stranded	E	Yellow	14	—	—	—	—	—
			24	—	—	—	552443-1	—
			36	—	—	2-552475-1	552444-1	552470-1
			50	552391-1	—	—	552390-1	552471-1
			64	—	—	—	552488-1	—
22 Solid 22 Stranded	F	Brown	14	—	—	—	—	—
			24	—	—	—	—	—
			36	—	—	—	—	—
			50	555227-1	—	—	556039-1	—
			64	—	—	—	—	—

■ Wire insulation diameter of 1.14 mm [.045 in.] (max) is acceptable for contacts with letter code E.  
 Wire insulation diameter of 1.42 mm [.056 in.] (max) is acceptable for contacts with letter code F.

Figure 1 (End)

## 2. DESCRIPTION

Plug (male) and receptacle (female) connectors each feature a polarized housing preloaded with contacts on 2.16 mm [.085 in.] centerlines. The connectors are available with 14, 24, 36, 50, or 64 contact positions arranged in two opposing rows.

Each housing has a color coded dot, which indicates the wire size to be terminated to the connector. The flanges of the plug housing have either 4-40 UNC-2B threaded holes for screw mounting or open ends for bail mounting. The flanges of the receptacle housing have either 4-40 UNC-2B threaded holes for screw mounting or mounting holes (which accept screw or bail mounting hardware; depending on the type of plug housing flanges). Note that receptacles have 4.75 mm [.187 in.] thick flanges for free-hanging applications and 1.98 mm [.078 in.] thin flanges for panel-mounted applications.

The contacts accept discrete wire with solid conductors and are designed for laminated cable with 7-stranded conductors (see Figure 1). A letter code, designating the wire size, is stamped on each contact to assist in selecting replacement contacts.



*Cables are manufactured to various specifications (material, tolerances, etc.). All are NOT compatible with CHAMP connectors. Before making production assemblies, it is suggested that samples of cable be submitted to TE Connectivity for evaluation.*

A complement of strain-relief covers, strain reliefs, and attaching hardware is available for the connectors. For selection and installation procedures, refer to Instruction Sheet 408-3159 for strain-relief hardware and 408-3160 for mounting hardware.

## 3. TOOLING

### 3.1. Termination

Basic terminating tools are available, each designed for a specific purpose. The tool designator, part number, purpose, and instruction material are provided in the following:

#### Frame Assembly and Tooling Assembly

Tooling Assembly 231593-2 is designed for mass termination of discrete wire. See 408-3133.

Tooling Assembly 231592-2 is designed for laminated cable. See 408-3137.

Tooling Assemblies 230506-5 and -6 are designed for back-to-back connectors. See 408-6503.

MI-1 Portable Hand-Operated Tools 229378-[ ] are intended for production line and field terminations of all connectors. See 408-7559.

Palm Grip Single Wire Insertion Tool 229451-1 is intended for field service and repair terminations of all connectors. See 408-7642.

T-Handle Single Wire Insertion Tool 229384-1 is intended for repair terminations of all connectors. See 408-7558.

### 3.2. Contact Replacement

Damaged contacts should not be used and can be removed and replaced with the use of Extraction/Insertion Tool 230238-1. Refer to 408-7787 for contact selection, removal, and replacement.

#### 4. CONNECTOR SELECTION

1. Determine the size of the wire and the number of contacts that are to be terminated.
2. Determine the type of application to be used (cable-to-cable or cable-to-panel).
3. Determine the hardware to be used (captive screw for semi-permanent assembly and bail mounts for quick disconnect assembly).
4. Using the determinations found in Steps 1, 2, and 3, refer to Figure 1, and select the applicable connectors.

#### 5. INSTALLING DUST COVER

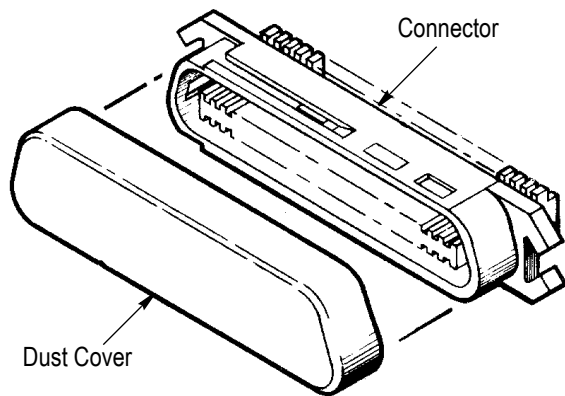
Dust covers should be used to protect the mating face of connectors that are NOT mated.

1. Determine the size and style of the connector requiring protection, refer to Figure 2, and select the applicable cover.
2. Align the cover with the mating face of the connector and press it into position.

#### 6. REVISION SUMMARY

Revisions to this instruction sheet include:

- Changed company logo
- Removed obsolete connectors from Figure 1 and obsolete dust covers from Figure 2
- Removed obsolete CHAMPOMATOR\* terminating machine, control module, and applicator module from Paragraph 3.1



CONNECTOR POSITIONS	DUST COVER	
	PLUG (Blue)	RECEPTACLE (Red)
24	—	229969-4
36	—	229969-3
50	229968-1	229969-1
64	229968-2	229969-2

Figure 2