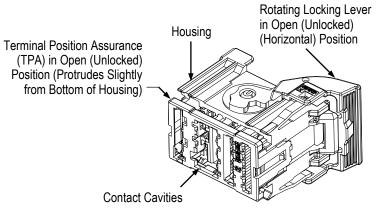
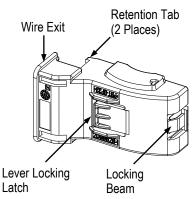
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# Hybrid Plug Assembly (22-Position Shown)







Mating Face

PLUG ASSEMBLY	POSITIONS	CONTACTS		WIRE DRESS
		Type∙	Amount (Contact Cavity)	COVER
2098627-[]	22	1.5-mm	12 (Small)	2098628-1
		2.8-mm	7 (Medium)	
		6.3-mm	3 (Large)	
2138731-[]	36	1.5-mm	20 (Small)	2098622-1
		2.8-mm	10 (Medium)	
		6.3-mm	6 (Large)	

Not available from TE Connectivity—1.5-mm are manufactured by Molex; 2.8- and 6.3-mm are manufactured by Delphi.

Figure 1

Plug assembly features are given in Figure 1. Contacts and a wire dress cover, both available separately, are required for assembly. Contact description and wire dress cover part numbers and features are given in Figure 1.

#### 1. ASSEMBLY

## 1.1. Insert Contacts

- 1. Ensure that the TPA and rotating locking lever are each in the open (unlocked) position. Refer to Figure 1. If either are not in the open (unlocked) position, refer to Paragraphs 2.1 (TPA) and 2.3 (rotating locking lever).
- 2. Crimp the contacts according to instructions provided by the manufacturer.
- 3. Select the plug housing contact cavities to be loaded with contacts. Refer to the table in Figure 1.
- 4. From the wire end of the plug, align each crimped contact with the applicable contact cavity as described in Figure 2, Detail A. Grasp the wire of the contact and insert the contact straight into the contact cavity. See Figure 2, Detail B. The retention latch finger of the contact cavity will be deflected by the contact and hold it in place.
- 5. Lightly pull each wire to ensure that the retention latch finger is holding the contact in place.

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# Detail A—Aligning Contacts with Contact Cavity Detail B—Contacts Installed in Contact Cavity Rotating Locking Lever in TPA in Open Open (Unlocked) Position (Unlocked) Position Small **Contact Cavities** Large **Contact Cavities** Wire End of Plua Medium **Contact Cavities** TPA in Closed **Contact Orientation** (Locked) Position 2.8-mm Contacts (Medium) 1.5-mm Contacts (Small) ► 6.3-mm Contacts (Large) Align Orientation Tab with Align Locking Window with Top of Contact Cavity Top or Bottom of Contact Cavity

Figure 2

#### 1.2. Move TPA to Locked Position

The TPA must be moved to the closed (locked) position *after* all contacts have been inserted. Push the TPA evenly into the plug housing until it is flush with the bottom of the housing. See Figure 2, Detail B.



#### NOTE

If the TPA does not move easily into the closed (locked) position, one or more of the contacts are not fully inserted. Move the TPA to the open (unlocked) position (refer to Paragraph 2.3), and check that all contacts are fully inserted.

# 1.3. Install Wire Dress Cover

The wire dress cover must be installed onto the plug housing *after* the TPA is moved to the closed (locked) position.

- 1. Form a wire bundle, and move it toward the end of the housing opposite the rotating locking lever.
- 2. Align the bottom of the wire dress cover with the wire end of the housing so that the wire exit is over the wire bundle. Then, position the retention tabs of the wire dress cover into the retention slots of the housing. See Figure 3, Detail A.
- 3. Ensure that the wire bundle is completely captured within the wire dress cover and no wires are pinched between the housing and the wire dress cover, then push the wire dress cover onto the housing until both ends of the wire dress cover lock into place. There will be an audible and tactile click. See Figure 3, Detail B.
- 4. Using tape or cable ties, secure the wire bundle to the wire dress cover.

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## Installing Wire Dress Cover onto Plug









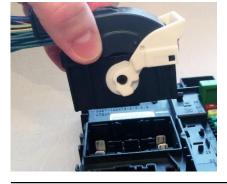
Figure 3

# 1.4. Mate Plug with Interface Assembly

The wire dress cover must be installed before the plug can be mated to the interface assembly.

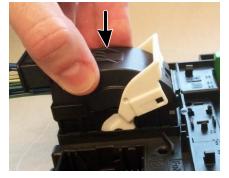
- 1. Ensure that the rotating locking lever of the plug is in the open (unlocked) (horizontal) position as shown in Figure 4, Detail A.
- 2. Align the mating face of the plug with the mating face of the interface assembly, ensuring that the keys are mutually oriented, then insert the plug into the interface assembly until it bottoms. The rotating locking lever will rotate approximately 15° as shown in Figure 4, Detail B. There will be an audible and tactile click. The plug rotating locking lever in now in the pre-locked position.
- 3. Move the rotating locking lever until it latches onto the lever locking latch of the wire dress cover. There will be an audible and tactile click. The plug rotating locking lever is now in the closed (locked) (vertical) position. See Figure 4, Detail C.

Detail A



Mating Plug to Interface Assembly





Detail C

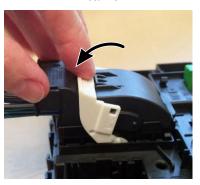


Figure 4

#### 2. DISASSEMBLY

## 2.1. Unmate Plug

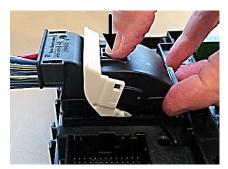
- 1. Press the lever locking latch of the wire dress cover. See Figure 5, Detail A.
- 2. Rotate the rotating locking lever over the lever locking latch until it cannot be rotated any further. The rotating locking lever is now in the open (unlocked) (horizontal) position. See Figure 5, Detail B.
- 3. Pull the plug straight away from the interface assembly. See Figure 5, Detail C.

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# **Unmating Plug from Interface Assembly**

# Detail A



#### Detail B



Detail C

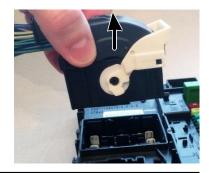


Figure 5

# 2.2. Remove Wire Dress Cover

1. If present, remove any tape or cable ties from the wire bundle.



# **CAUTION**

Be careful not to nick or cut the wire insulation.

2. Using a jeweler's screwdriver, carefully depress the locking beam of the wire dress cover, and pull the wire dress cover from the plug housing. See Figure 6.

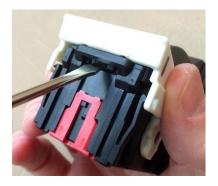


Figure 6

# 2.3. Move TPA to Open (Unlocked) Position

Using a jeweler's screwdriver, lift the bottom of each latch of the TPA until it disengages from the housing, then gently pull the TPA so that it protrudes slightly from the bottom of the plug housing. See Figure 7.



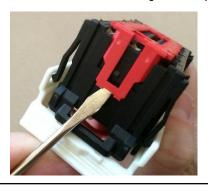
#### CAUTION

Do not force the TPA when pulling it; otherwise, it will separate from the plug housing and must be re-installed.

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# Moving TPA to Open (Unlocked) Position



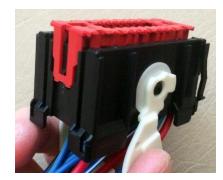


Figure 7

#### 2.4. Remove Contacts

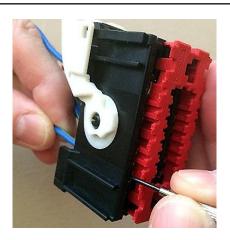
The wire dress cover must be removed and the TPA must be moved to the open (unlocked) position *before* any contacts can be removed.

- 1. From the mating face of the plug, insert the tip of a jeweler's screwdriver into the contact cavity of the contact to be removed until it stops, then rotate the screwdriver toward the contact to deflect the retention latch finger of the contact cavity.
- 2. Holding the screwdriver tool in place, gently pull the wire of the contact to be removed until the contact is out of the housing. See Figure 8.

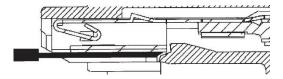


#### **CAUTION**

Take care not to damage the contacts during removal.



# Removing 1.5-mm Contact



Removing 2.8-mm or 6.3-mm Contact

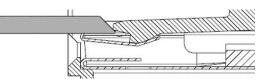


Figure 8

# 3. REPLACEMENT AND REPAIR

Do not used damaged or defective product. The plug, wire dress cover, and contacts are not repairable. Do not re-use contacts by removing the wire.

#### 4. REVISION SUMMARY

Initial release of instruction sheet

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