

PART NUMBERS	DESCRIPTION
1747731-1	0.64/1.0 Sealed 49-Position Plug Assembly, C Key
1747731-2	0.64/1.0 Sealed 49-Position Plug Assembly, B Key
1747731-3	0.64/1.0 Sealed 49-Position Plug Assembly, A Key
1612108-4	025/040 Cavity Plug
776665-1	49-Position Wire Cover, Type V
1747732-1	0.64/1.0 Sealed 147-Position Cap Assembly

Figure 1

1. INTRODUCTION

This instruction sheet deals with the Clean Body 025/040 Sealed Connectors listed and shown in Figure 1.

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

2. DESCRIPTION

Contacts used in these connectors are listed in Figure 2.

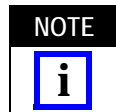
PART NOS.	DESCRIPTION	WIRE SIZE	INSULATION DIAMETER
1717148-1	Clean Body 025 Contact (S)	0.3-0.50 mm ²	1.10-1.7 mm
1318329-1	Clean Body 025 Contact (M)	0.5-0.85 mm ²	1.25-1.9 mm
1612776-1	Clean Body 040 Contact (S)	0.3-0.5 mm ²	1.10-1.7 mm
1318332-1	Clean Body 040 Contact (M)	0.75-1.25 mm ²	1.6-2.2 mm
1612775-1	040 Contact CAN	CAN Wire Only	1.8-2.2 mm

Figure 2

3. CRIMPING

3.1. Wire Stripping

Strip the wire in accordance with Figure 3. Refer to Figure 2 for wire size and insulation diameter. Strip lengths can be found on Application Specification 114-5278.



Wire insulation must be smooth and free of deformities before AND after the stripping and crimping operations, to ensure proper waterproof performance.

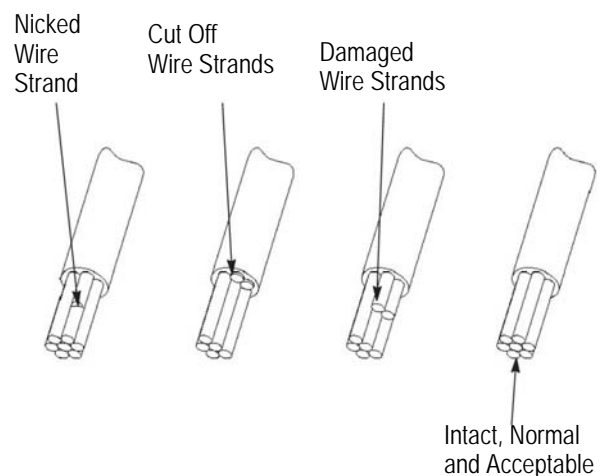


Figure 3

3.2. Crimping the Contacts

All applicable crimp data is listed in Application Specification 114-5278.

3.3. Storing the Crimped Contacts

- Store the crimped contacts in a clean, dry, area. If necessary cover the crimped contacts appropriately.

- If the leads are held in bands, do not tangle or deform the wires or the contacts.
- Do not stack the crimped leads. Stacking the leads may lead to defective or low electrical connection; poor contact retention; and deformity due to the weight of the leads.
- Do not tap the edges of the contacts to align them.

Pre-Lock Position

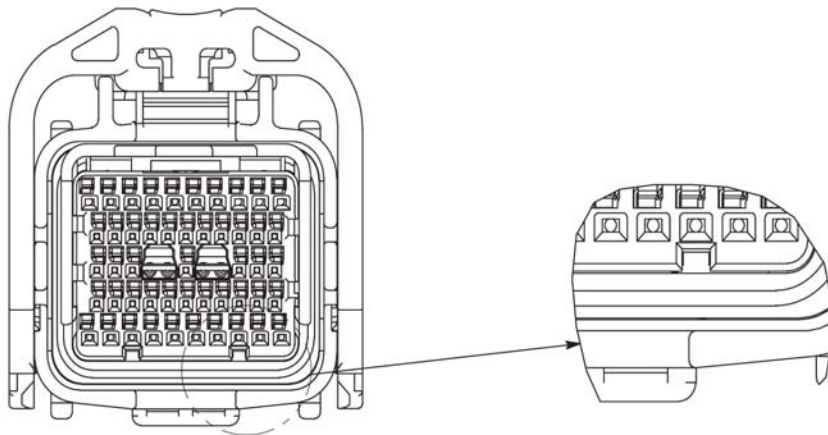


Figure 4

Final-Lock Position

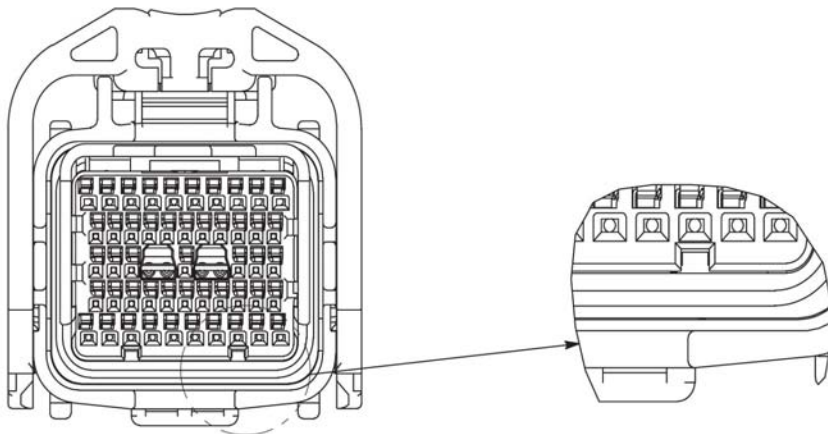
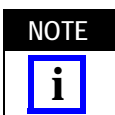


Figure 5

4. HARNESS ASSEMBLY



Check to be sure the retainer of the connector is in the "pre-lock" condition. See Figure 4 and Figure 5.

4.1. Insertion

1. Insert the contacts into the housing in the same direction as shown in Figure 6. Insertion is complete when an audible "click" is heard, and forward movement of the contact stops.

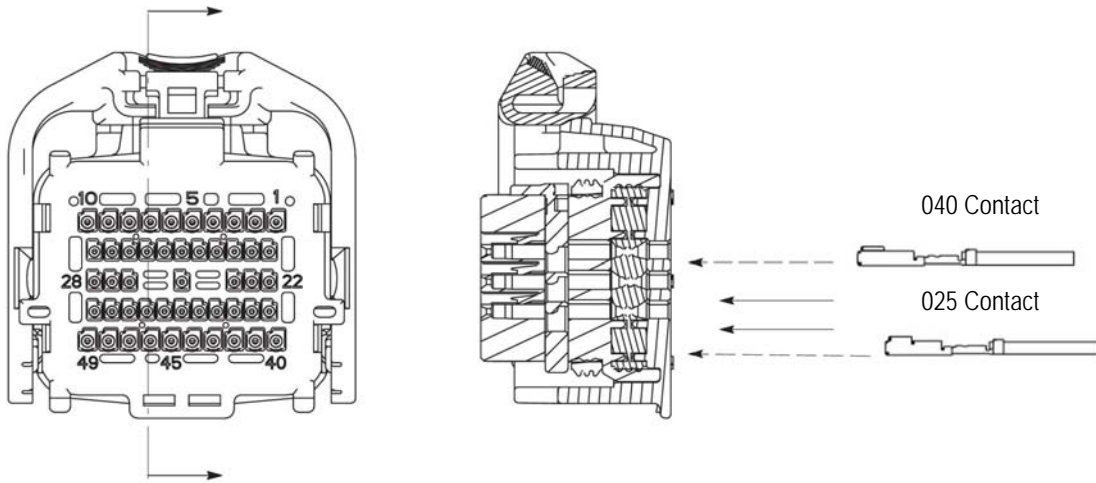


Figure 6

2. When it's difficult to insert a contact, check the position of the retainer (without pushing it in by force).
3. Be sure that no extraction is made, by pulling the each wire crimped to a contact.



The contacts require higher insertion force than non-sealed type connectors. Pay particular attention to Steps 1 and Step 2, above.

4. After the cavities are filled by the contacts or cavity plugs, insert the retainers into the housing (to the deep end) to complete the final lock condition. See Figure 7.

5. Be sure the retainer is inserted until a clicking sound is heard. Be sure the retainer is in a downward position, as shown in Figure 7.



Do not force the contacts when the retainers cannot be inserted. Instead, find the half inserted contact, remove it, and try to insert the retainer again.

4.2. Retainer Release

In order to insert or extract female contacts, the retainer must be moved to the pre-lock condition. It is impossible to insert or extract the contacts with the retainer in the final-lock position. Refer to Figure 5.

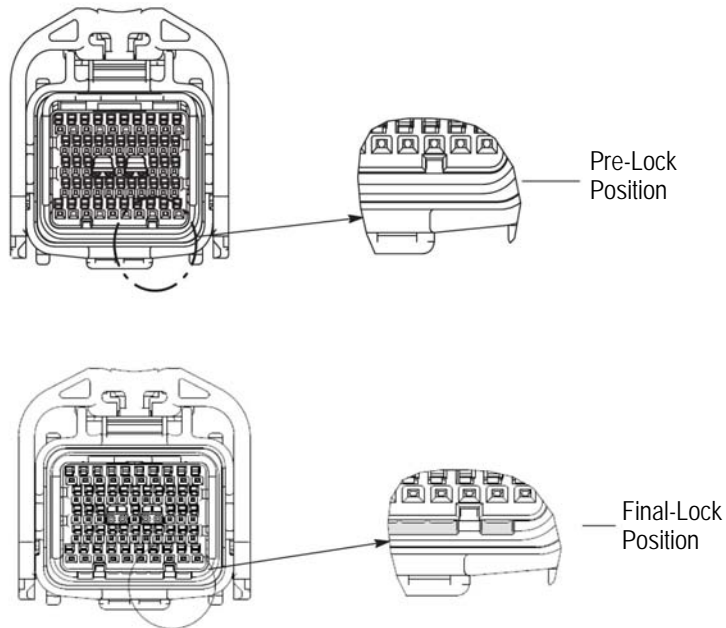


Figure 7

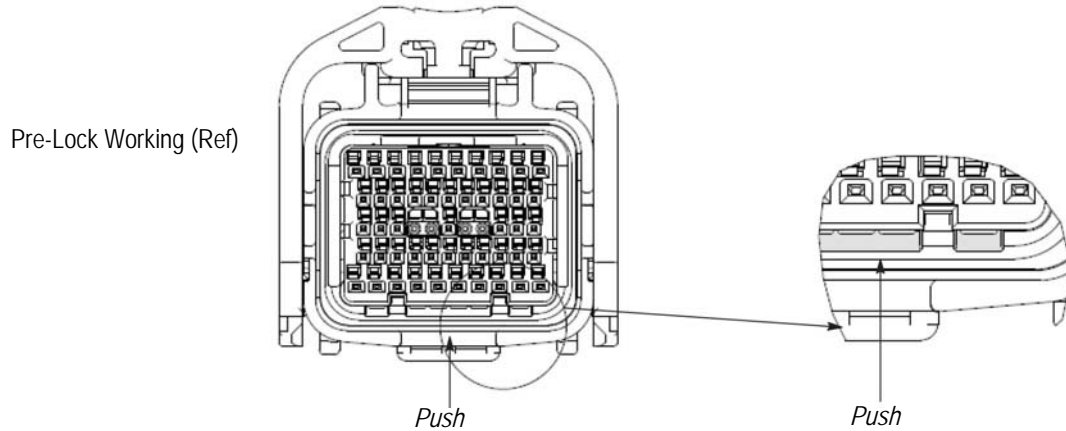


Figure 8

Push the retainer by finger or tool to the pre-lock position. See Figure 8.

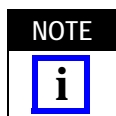


Do NOT damage the rubber seal.

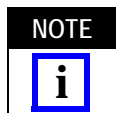
4.3. Female Contact Extraction

1. Confirm that the retainers are in the pre-lock condition. If they are in the final condition, it will be necessary to move them to the pre-lock condition. See Figure 8.
2. If necessary, push the contacts to the bottom end of the cavities.

3. Extract the contact by pulling the crimped wire while pressing the latch slightly with extraction tool 1729919-1.



The plug assembly must be exchanged for a new one if one terminal insertion and extraction repair has been performed in the same circuit location of the rubber seal. (Only one terminal repair cycle per circuit is allowed.)



Do not insert the extraction tool (Figure 9) into the female contact. When this occurs, the female contact should be replaced and not repaired OR reused.

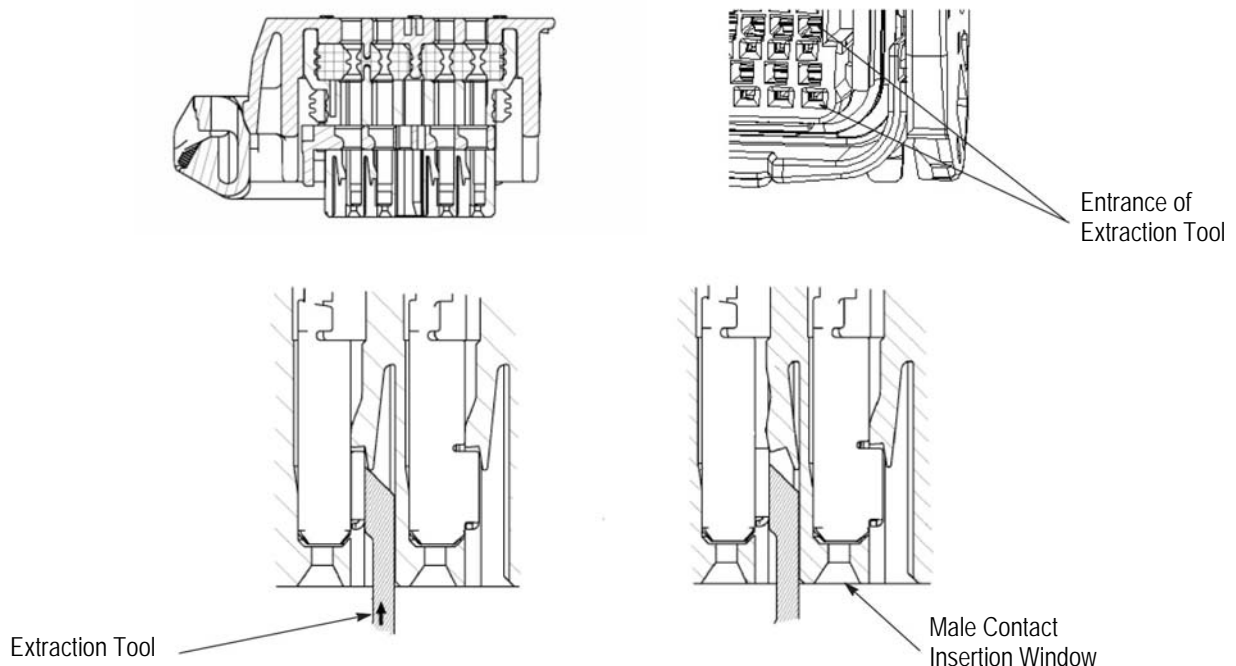


Figure 9

4.4. Wire Cover Attachment (Figure 10)

1. Bend the harness in the appropriate direction.
2. Insert the back lock of the lever assembly into the hole for latching the plug assembly.
3. Centering the plug assembly, close the opposite lock by pushing on the wire cover until it snaps into place.
4. Gather the wires in the wire slot feature.
5. Close the hook of the wire cover.
6. Be sure no wires are left outside of the hook.

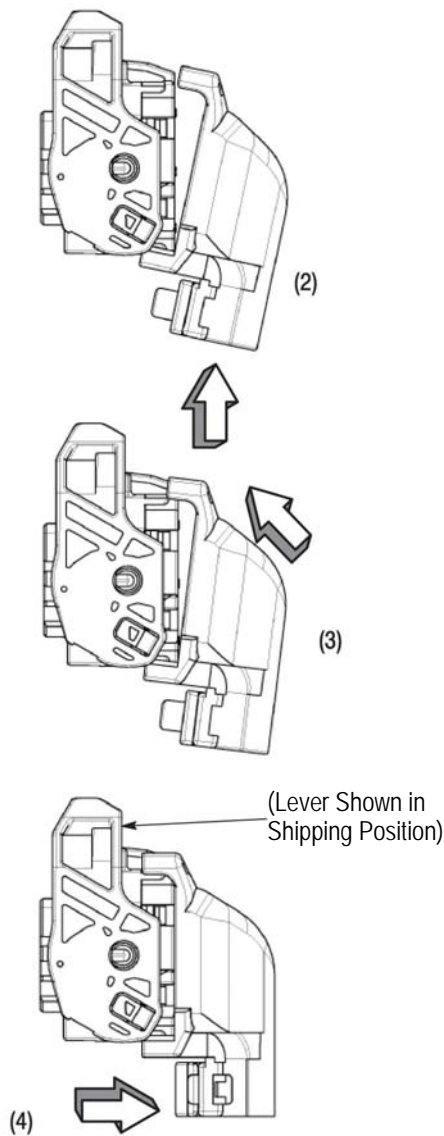
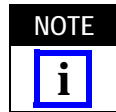
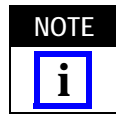


Figure 10



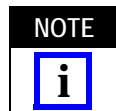
Be sure that the wires inside the wire cover are arranged neatly.



Be aware of the lever position. The lever position should be the same as the shipping condition. See Figure 10.

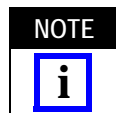
4.5. Wire Harness Control

1. Refrain from applying too much force or shock against the harness or connector.
2. Tie or tape the wires approximately 30mm from the end of the connector.



Perform this operation carefully to prevent too much force or pressure against the wires.

3. Use an applicable mating connector or equivalent for the conductivity “check jig” (continuity check fixture).
 - a. Do not insert the test probe into the female contact.



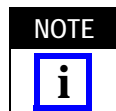
The contact must be replaced in the case of probe pin insertion

- b. Contact TE Connectivity if the “check jig” (continuity check fixture) is required.
4. Store the product in a clean, dry area. Do not allow the product to remain exposed.
5. When shipping and carrying, use the proper packaging to prevent contamination by dust, rain, or dirt. Handle carefully.

5. CONNECTOR MATING AND UNMATING (Figure 11)

5.1. Connector Mating

1. Check to be sure the contact is in the latching position, the wire is tied (bundled) properly, and the retainer is in the final-lock position.
2. Check to be sure the contact is not deformed, discolored, or damaged. Check that the housing is not deformed, discolored, or damaged.



If the contact or housing IS deformed, discolored or damaged, replace with a new one.

3. Check to be sure the lever is in the Initial lock position. The product is shipped with the lever at the mating complete position. If necessary, change to the initial-lock position, as shown in Figure 12.

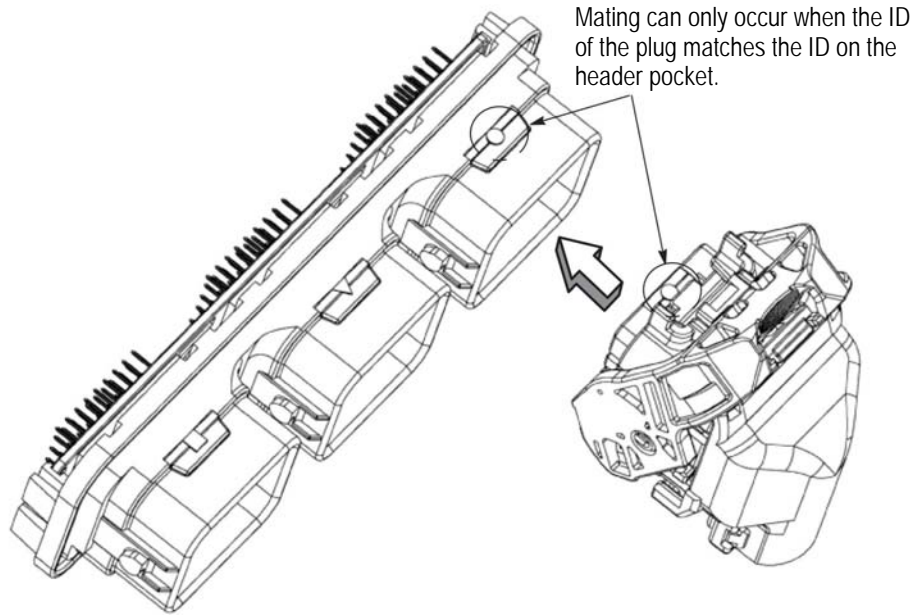


Figure 11

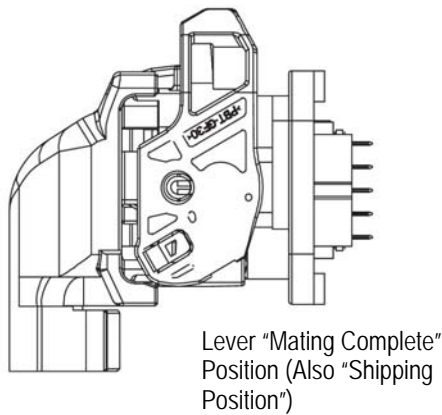
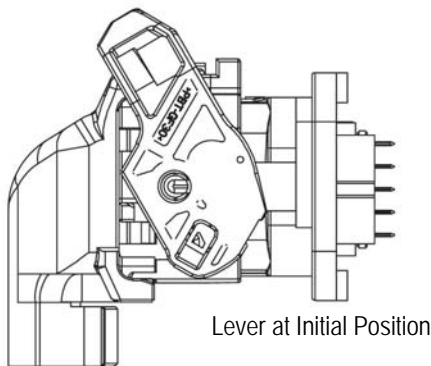


Figure 12

4. Insert the female housing directly into the male housing, as shown in Figure 11. The connector is at the pre-lock position when the female housing cannot be inserted further.

NOTE *The plug must be mated straight onto the header, with no angular or prying motion.*

NOTE *Normal connector mating may not occur if the operation is started in the incomplete pre-lock position. Be sure the lever is at the initial position, as shown in Figure 12.*

5. Rotate the lever to the final-lock position. See Figure 13.

6. Press the female housing toward the male housing while moving the lever as described in Step 5.

NOTE *In case of unsmooth insertion during the assembly, the lever must be adjusted to its initial condition.*

5.2. Connector Unmating

1. Release the lever lock by pressing down on the locking device. See Figure 14.
2. Lock the lever at the initial lock device by rotating it.
3. Separate the female housing from the male housing.

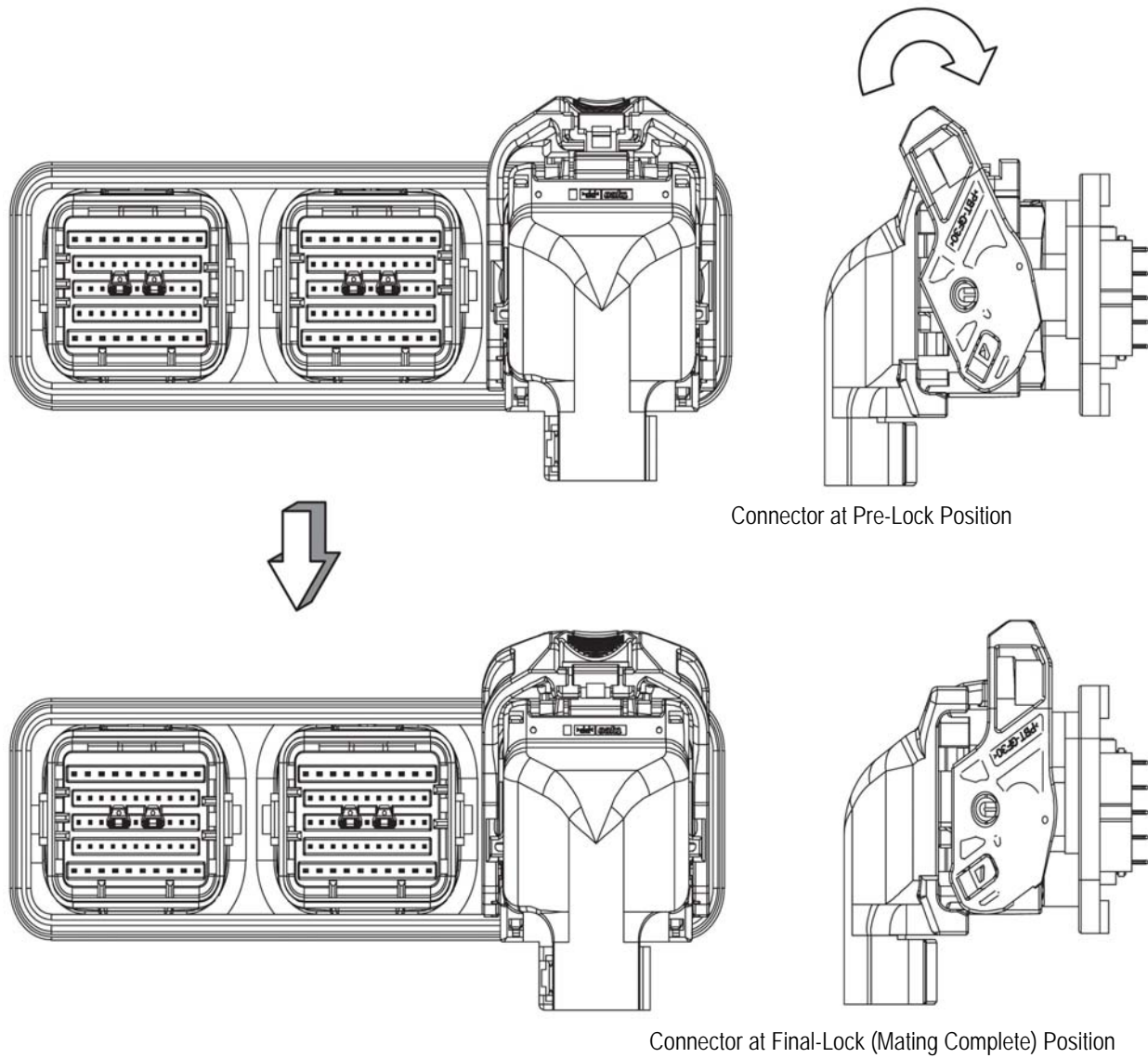
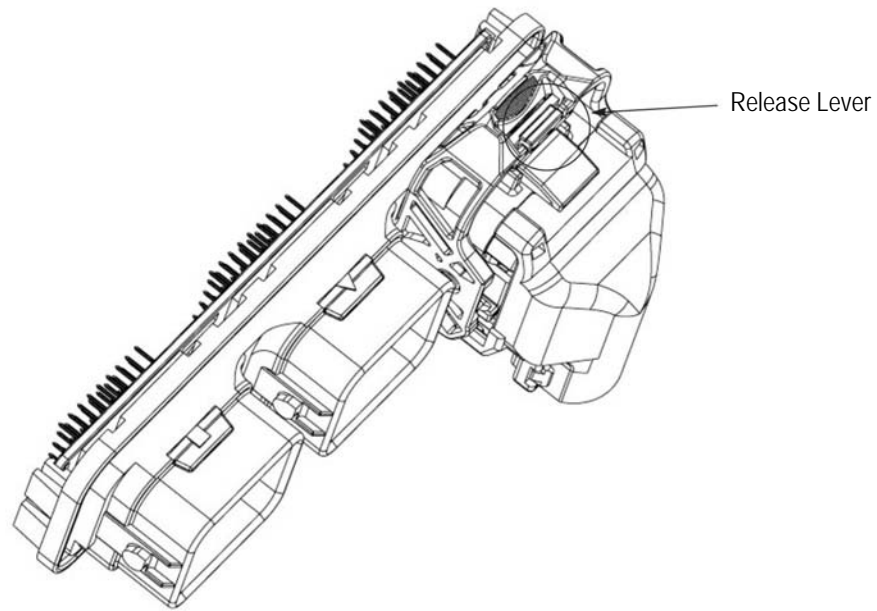


Figure 13



Release the Lever Lock by Pressing Down

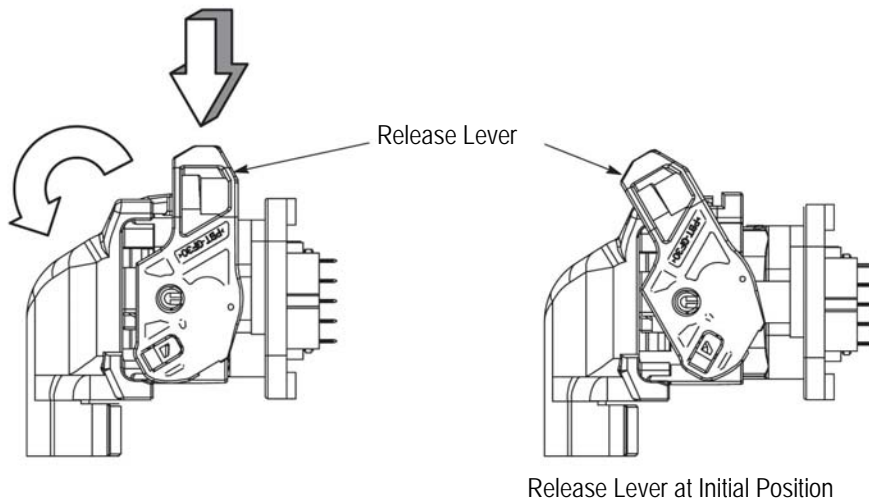


Figure 14

6. REVISION SUMMARY

Revisions to this instruction sheet include:

- Changed company name and logo
- Updated instruction sheet to corporate requirements
- Corrected number of positions for plug in Figure 1
- Corrected part number in Figure 2