

Figure 1

1. INTRODUCTION

The 1.2 mm MCON 2-position unsealed plug assemblies accept the 1.2 mm MCON receptacle contacts shown in Figure 1 while the 1.2 mm MCON 2-position unsealed caps accept the 1.2 mm MCON pin contacts also shown in Figure 1. The optional wire cover, shown in Figure 1, is recommended. This instruction sheet provides assembly (contact insertion, optional wire cover installation, and plug and cap assembly mating) and disassembly (plug assembly Unmating, optional wire cover removal, and contact extraction) procedures for the plug and cap assembly.

2. DESCRIPTION (See Figure 1)

Each plug assembly consists of a housing with hinged ISL and optional CPA. Cap housing includes hinged ISL.

Each circuit cavity is polarized to prevent the contact from being inserted incorrectly. After all contacts are inserted, the ISL is used to detect that all contacts are fully seated and to provide a secondary contact retention. If a contact is not fully seated or improperly orientated in the circuit cavity, the ISL will not close properly.

The CPA lock is used to provide a visual indication that the plug and cap assembly is fully mated. If the plug and cap assembly is not fully mated, the CPA lock will not engage.

The optional wire cover allows for 90° angle wire exits (see Figure 1).

3. ASSEMBLY PROCEDURE

3.1. Contact Insertion

1. Crimp the contacts using the tooling and inspection requirements given in Application Specification [114-18464](#). The wire insulation diameter must fall between 1.2 and 1.9 mm.
2. Make sure that the connector ISL is in the open (as shipped) position. If it is only partially open or in the closed position, refer to Step 1 of Paragraph 4.3.
3. Insert each terminated contact into the plug and cap assembly as follows:

- a. Grasp the wire of the contact and align the contact with the selected circuit cavity so that the contact polarizing feature faces in the top of the circuit cavity (notch indicates top). See Figure 2, Detail A.
- b. Insert the contact straight into the circuit cavity until it bottoms. If there is significant resistance during insertion, remove the contact, and verify orientation. There should be an audible or tactile “click” when the contact is fully seated. See Figure 2, Detail B.
- c. Gently pull the wire to ensure that the contact is locked in place. See Figure 2, Detail B.

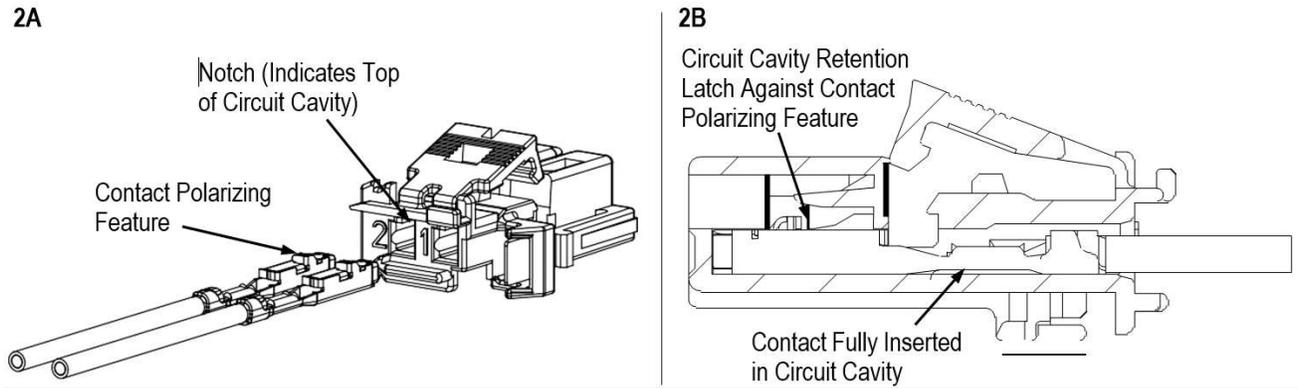


Figure 2

4. Push down on ISL with thumb until it is fully seated. There should be an audible or tactile “click” when the ISL is locked into place. See Figure 3.
5. Ensure that both sides of the ISL are seated. Use a gage designed to simulate the mating device interface to check that the ISL is in the closed position.



NOTE

The gage can be built into fixtures used in the harness building process. For additional information, contact PRODUCT INFORMATION at the number at the bottom of page 1.

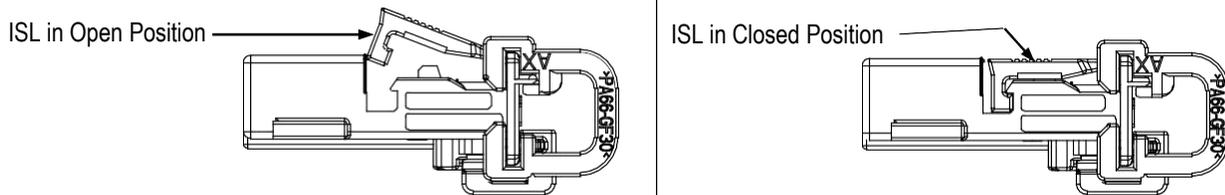


Figure 3

If the ISL does not move to the closed position or is partially open, ensure that all contacts are fully inserted; then try again to move the ISL to the closed position.



CAUTION

To prevent damage to the ISL, do not force the ISL to the closed position. The ISL is designed to close only if all contacts are properly oriented and fully seated.

3.2. Optional Wire Cover Installation

1. Hold the plug and cap assembly, grasp the wire bundle, and form (bend) the wire bundle in the desired direction. See Figure 4, Detail A.
2. Align the open end of the base of the wire cover with the lip at the wire end of the plug and cap assembly, making sure that the wire exit will accommodate the desired direction of the wire bundle. See Figure 4, Detail B.
3. Slide the wire cover onto the outer housing and over the wire bundle, making sure that all wires are completely captured within the wire cover, until it snaps into place. See Figure 4, Detail C.

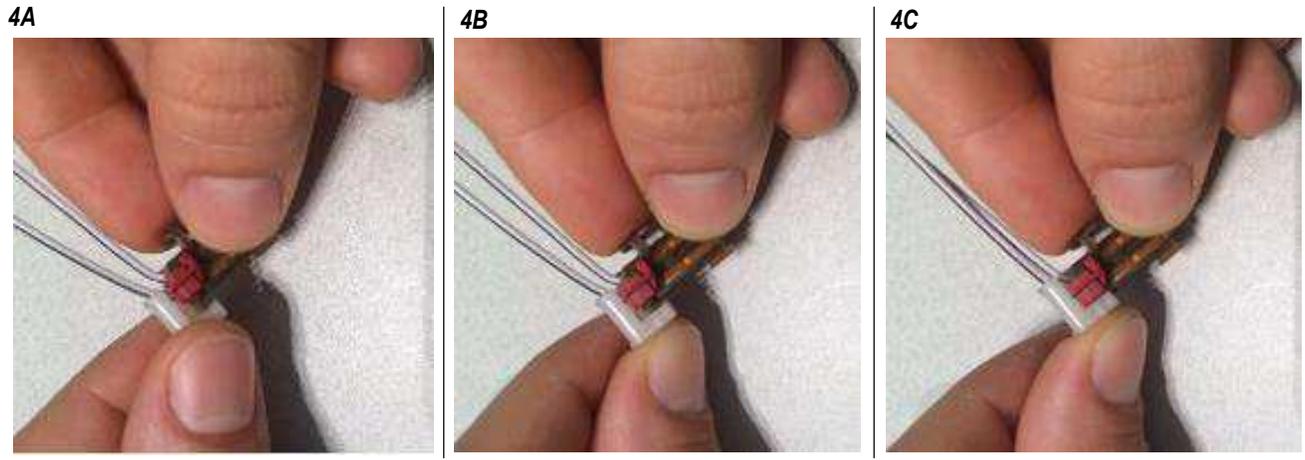


Figure 4

3.3. Mating

1. Align the mating face of the plug and cap assembly with the mating device so that the key is properly oriented with the device key and the mating latch aligns with the shark fin latch of the mating device. Then push the plug and cap assembly onto the mating device. See Figure 5, Detail A. There will be an audible “click”.
2. Push the CPA until there is an audible and tactile “click”; locking the plug and cap assembly and mating device together. See Figure 5, Detail B. The CPA should be easy to engage. The CPA will not engage if the plug and cap assembly and mating device are not fully mated.



CAUTION

To prevent damage to the CPA or plug and cap assembly, do not force the CPA to engage. The CPA is designed to engage only if the plug and cap assembly and mating device are fully mated.

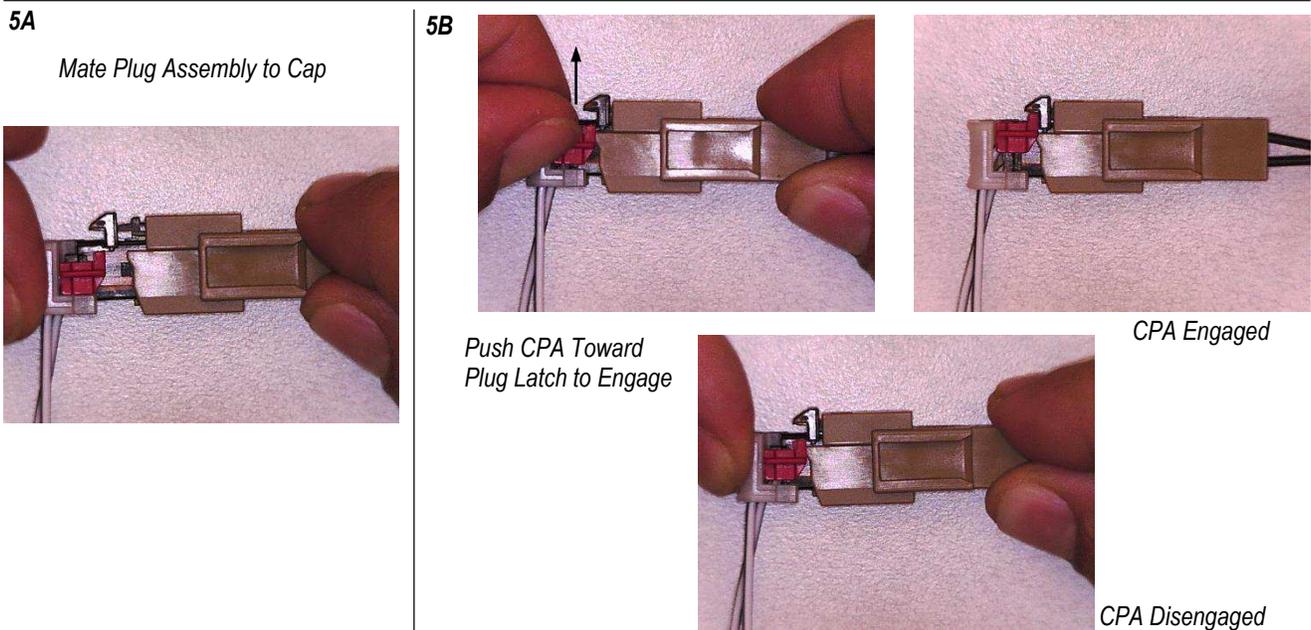


Figure 5

4. DISASSEMBLY PROCEDURE

4.1. Unmating

1. Push the CPA away from the primary connector latch to unlock the plug and cap assembly and mating device.
2. Depress the plug and cap assembly mating latch, then pull the plug and cap assembly away from the mating device.

4.2. Optional Wire Cover Removal

1. Use a small screwdriver (4-6 mm blade) to remove wire cover.
2. Slide tip of screwdriver under hook features on end opposite the connector latch. See Figure 6.

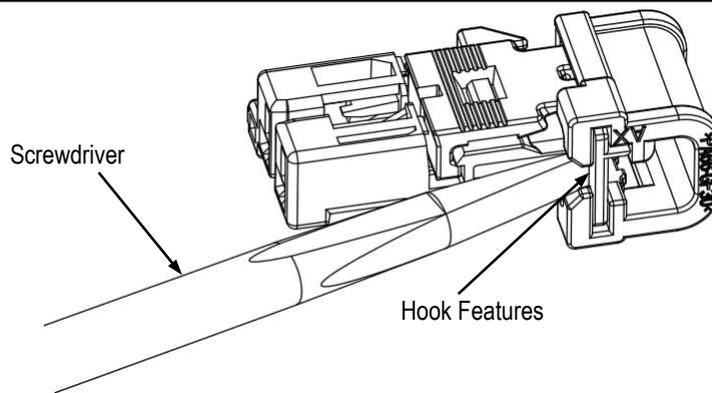


Figure 6

4.3. Contact Removal

1. Move the ISL to the open position as follows:
 - a. Insert the tip of a 3- or 4-mm flat blade screwdriver between the housing and ISL. Refer to Figure 7. One side of the ISL will typically unlatch due to the insertion of the screwdriver.
 - b. Rotate the screwdriver to unlatch the other side of the ISL. The ISL is now in the open position and will unlock the contacts from the plug and cap assembly. See Figure 7.

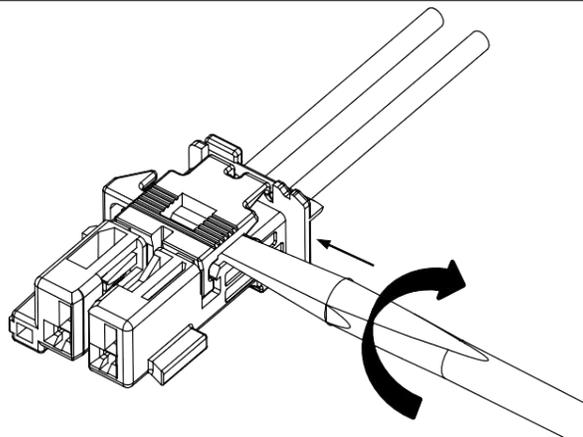


Figure 7

2. Push the wire of the contact to be removed so that the contact moves toward the mating face of the plug and cap assembly. See Figure 8, Detail A.

3. Holding the wire in place, from the mating face of the plug and cap assembly, insert the tip of General Motors Kent-Moore terminal release tool J-38125-215A (or equivalent, see note) into the circuit cavity release window of the contact to be removed, then gently rotate the tool toward the contact so that the circuit cavity locking latch moves away from the contact polarizing feature (this will release the contact). See Figure 8, Detail B.



CAUTION

Special care should be taken to prevent damage to the mat seal.

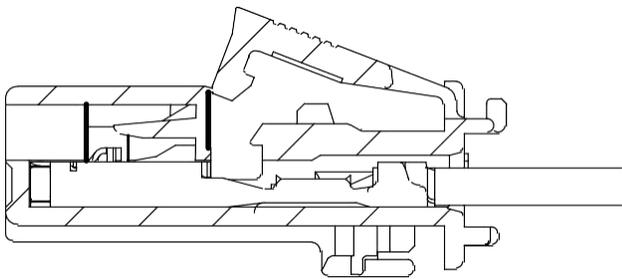


NOTE

A tool having a spring steel tip approximately 0.82-mm thick with a 0.95-mm high beam and 60-degree angled wedge can be used.

4. Holding the tool in place, pull the wire, until the contact is out of the plug and cap assembly.

8A



8B

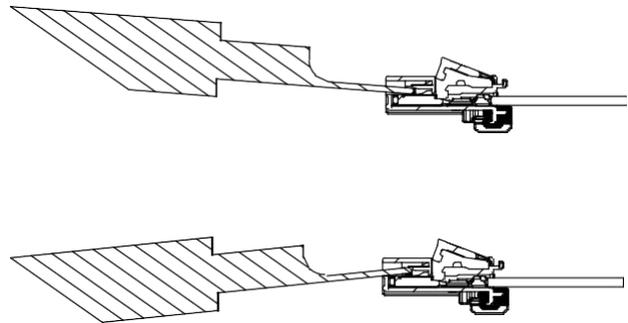


Figure 8

5. REPLACEMENT AND REPAIR

These products are not repairable. Do not use any defective or damaged product. Do not re-use a terminated contact by removing the wire.

6. REVISION SUMMARY

Rev Ltr	Brief Description of change	Date
A	Initial release of document	06 OCT 15
B	Page 1: 2340311 and 2272160 are added Updated in new 408 Instruction sheet template	29 AUG 23