
**32-POSITION
SEALED PLUG CONNECTOR
ASSEMBLY COMPONENTS**

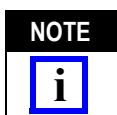
Part Number	Description
--	Header Assembly
1438640-[]	Plug Assembly
1326028-3 1326028-7	Female Contact, Au Plated
1438766-1	Wire Dress Assembly

Figure 1

1. INTRODUCTION

This instruction sheet provides contact assembly and disassembly procedures for the 0.64mm Automotive 32-Position Sealed Plug Connector Assembly shown in Figure 1. This instruction sheet also provides mating and unmating procedures.

The 32-position sealed plug assembly is designed to operate under Class I temperature and body and IP vibration profiles. The connector has shunts on the top that short adjacent contacts together when product is not in a mated condition. It is required that a wire dress assembly (1438766-1) be used with this connector. If you have special packaging requirements, please contact your Tyco Electronics Representative or the Product Information Center for assistance.



Dimensions in this instruction sheet are in millimeters. Figures are for reference only and are not drawn to scale.

2. DESCRIPTION

The plug assembly consists of a housing, a terminal position assurance (TPA) lock, eight metal shunts, perimeter seal, matte (grommet) seal, matte seal cover, and lever. The plug assemblies are shipped as one piece with the TPA in the open (pre-set) position. Likewise the wire dress assemblies (Figure 1) are shipped as one piece, with the connector position assurance (CPA) lock in the pre-set position.

The TPA will fully seat when the contact(s) are properly installed. In the event that a contact is not

fully seated or is mis-oriented in the contact cavity, the TPA will not seat or it will be difficult to seat without damaging the TPA. Once the TPA is closed (seated), the plastic terminal latch inside the plug housing cannot be deflected.

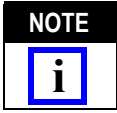
The matte seal cover, attached to the rear of the plug housing, orients the crimped contacts properly during installation of the contacts through the matte seal and into the the plug housing cavities.

The lever component of the plug assembly is locked into the pre-install position as received, and cannot be moved from the pre-install position until the plug assembly is placed onto the header and pushed to the pre-staged position. Once in the pre-staged position on the appropriate header pocket, the lever can then be rotated, drawing the plug assembly down to the fully mated position on the header.

The wire dress assembly can be installed onto the plug housing after the crimped terminals are loaded. After the lever of the plug assembly is properly rotated and the plug assembly is fully drawn onto the header pocket (fully-mated position), the lever will latch into the wire dress assembly (with an audible "click"). At this point, the CPA component can be moved from the pre-set position to the locked position. Once the CPA is moved to the locked position, the lever can not be released from the wire dress assembly without damage to the lever or wire dress components.

3. ASSEMBLY PROCEDURES

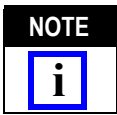
3.1. Contact Insertion



For information on contact crimping, refer to the instructions packaged with the tooling. For inspection information on crimped contacts, refer to Application Specification 114-13006.

Check to be sure the TPA lock is in the open (pre-set) position. See Figure 2. If the TPA is closed, refer to Paragraph 4.3, Contact Removal, Steps 1 and 2. Proceed as follows:

1. Insert a terminated contact by grasping the wire approximately 25.4mm [1.0 inch] behind the insulation crimp and pushing it straight in to the appropriate circuit cavity as far as it will go. Refer to Figure 2.



Contact orientation for the first row is opposite of contact orientation for the second row. See Figure 3.



If the wire should "buckle" prior to full insertion, pull the contact back out of the plug housing. Verify that the orientation complies with Figure 3, and reinsert the contact.

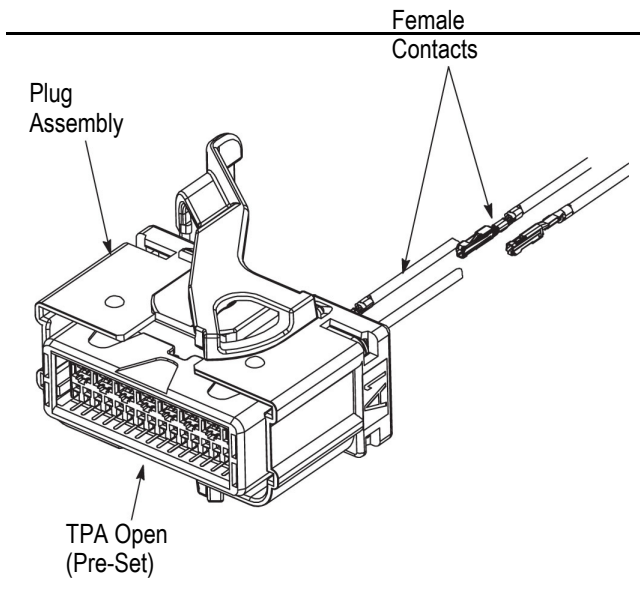


Figure 2

2. Pull back lightly on the wire and contact to ensure the retention finger is holding the contact.
3. After all required contacts have been inserted, the TPA must be closed. To close, push evenly across the TPA lock. The TPA lock should be flush with the plug housing. See Figure 4.

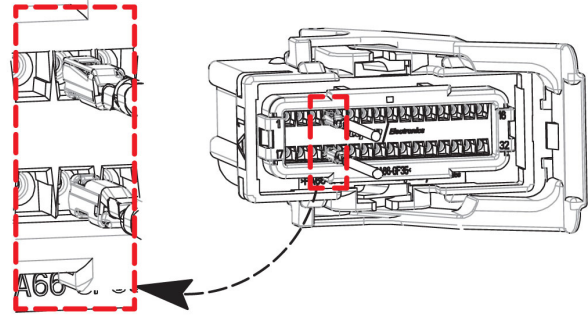


Figure 3

3.2. Contact Probing/Testing

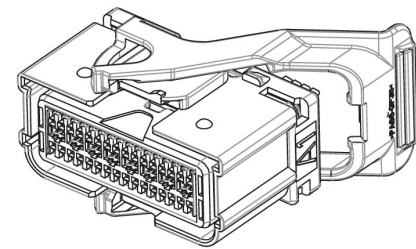
Refer to Drawing 776832 for test fixture details.

3.3. Wire Dress Assembly

Once contacts have been inserted and the TPA has been closed, the wire dress assembly can be installed.

1. Insert the front of the wire dress into the plug housing as shown in Figure 5.
2. Using a downward and rotating motion, install the rear of the wire dress until the latches on the wire dress snap into the features on the plug housing. An audible "click" will be heard as the two latch features lock into place.
3. Route the wire bundle through the wire dress opening as necessary.

TPA Shown in Closed (Seated) Position



TPA Lock Flush with Plug Housing

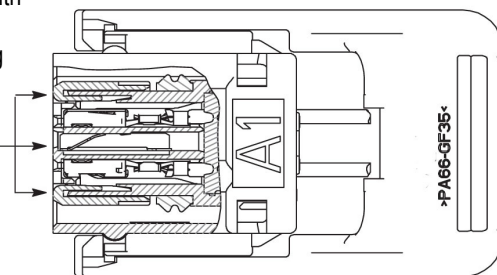


Figure 4

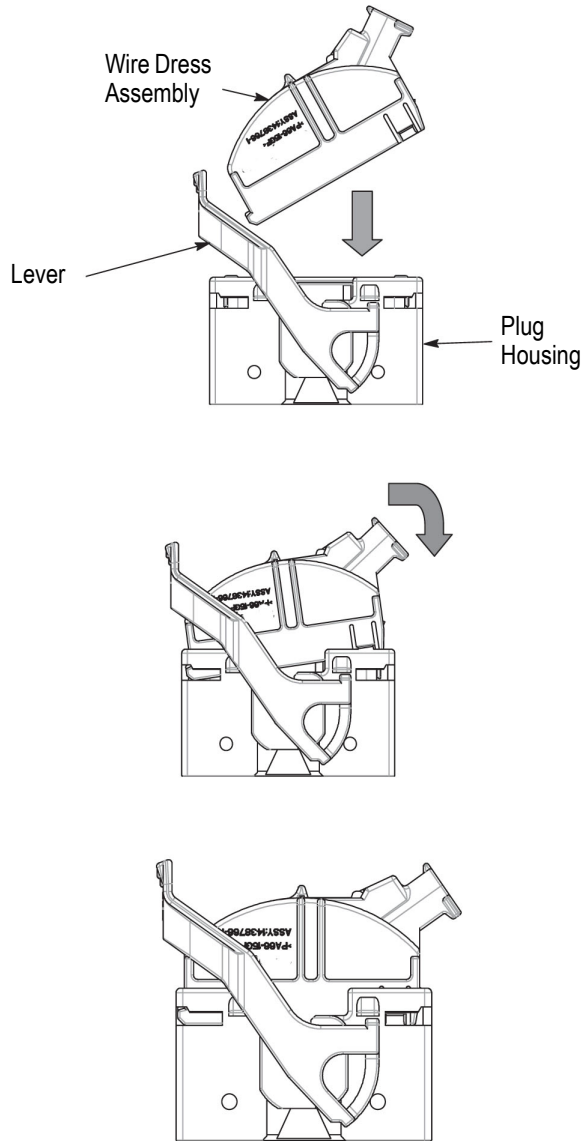


Figure 5

3.4. Connector Mating

Orient the plug assembly so that the plug housing can be started onto the appropriate header pocket. The header pockets have keying ribs to ensure correct mating combinations.

1. Push the plug assembly onto the header shroud until an audible “click” is heard. This is the pre-staged position and flexes the lever so that it can be released from the open position. Refer to Figure 6,A.
2. Rotate the lever while maintaining slight downward force on the plug/wire dress assembly. The lever gear feature will engage with the header shroud and draw the plug assembly down to the header.

3. Once the lever is rotated to the end of travel, an audible “click” will be heard as the lever latches into position on the wire dress. See Figure 6,B.

4. The CPA is then moved from the pre-set position to the locked position. Ribs on the sides of the wire dress align with arrows on the CPA to give visual indication that the CPA is in the correct position. See Figure 6,C.

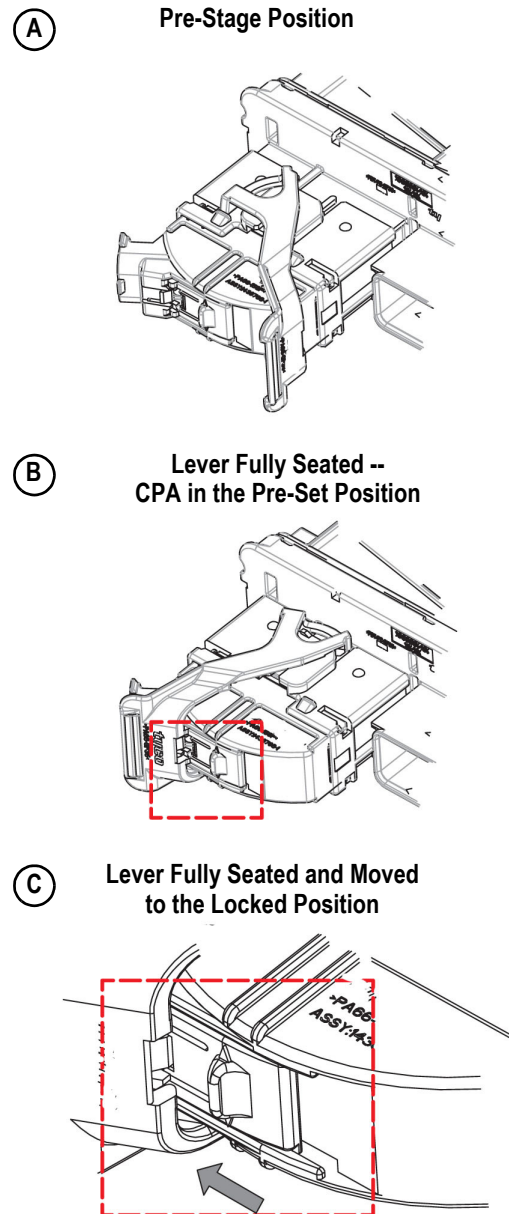


Figure 6

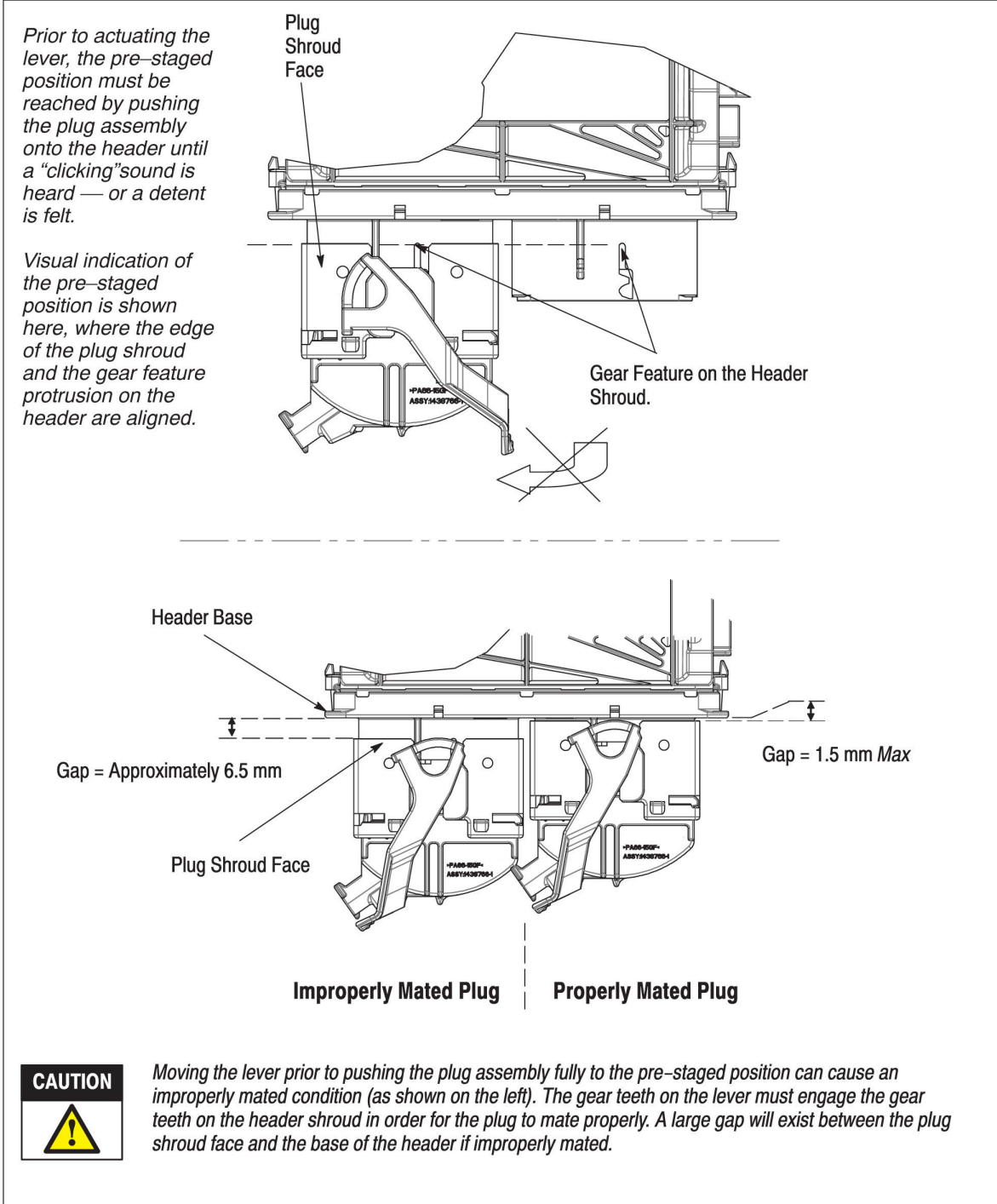
NOTE


The CPA will not close (seat) unless the lever is fully latched.

CAUTION


Prior to pushing on the lever, BE SURE the plug is properly aligned and mated, as shown below.

5. Pull back slightly on the lever to ensure that it is fully latched.



4. DISASSEMBLY PROCEDURES

4.1. Connector Unmating

1. Move CPA lock back into the open (pre-set) position. See Figure 7.

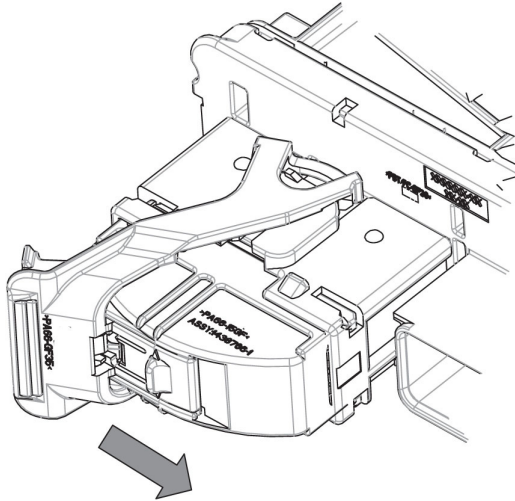


Figure 7

2. Rotate the lever back to the open position to disengage the plug assembly from the header.



It may be necessary to push the plug assembly toward the header to relieve stress on the latch mechanism.

3. When the lever is fully returned to the open position, a tactile feel is given as the lever flexes back to the pre-stage position.
4. Pull straight back on the plug assembly to disengage it from the header.

4.2. Wire Dress Removal

1. Position a jewelers' screwdriver (flat-blade 2.0 or 2.4 mm screwdriver) into the slot in the plug housing. The tip should be placed between the slot and the latch finger. See Figure 8.
2. Depress and rotate the screwdriver over the latch finger and "pop" the latch.
3. Perform the same technique on the opposite latch.

4.3. Contact Removal

The connector must be unmated (Paragraph 4.1) and the wire dress, if present, must be removed (Paragraph 4.2). Before removing contacts from the plug housing, the TPA lock must be moved back into the open (pre-set) position. To open the TPA lock and remove the contacts, proceed as follows: Figure 8.

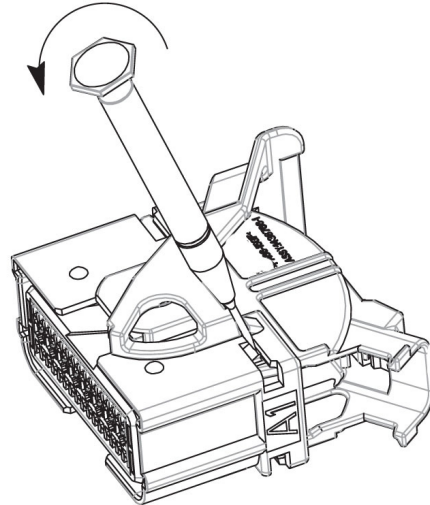


Figure 8

1. Insert a 2.0 – 2.4mm flat-blade screwdriver into the notch in the TPA lock as shown in Figure 9.
2. Using the edge of the housing shroud as a fulcrum, rotate the screwdriver toward the wire bundle. Rotate the screwdriver until the TPA "clicks" into the pre-set position. Both sides of the TPA should protrude evenly from the mating face of the plug housing.

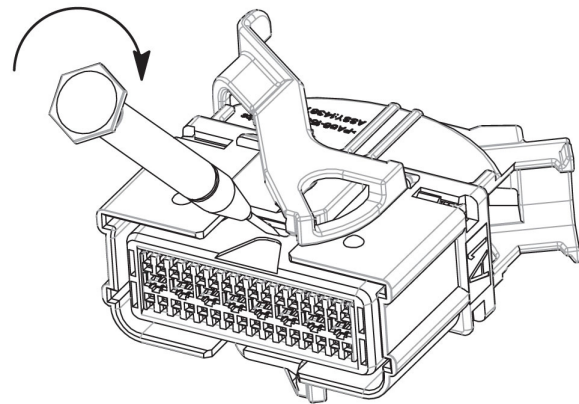
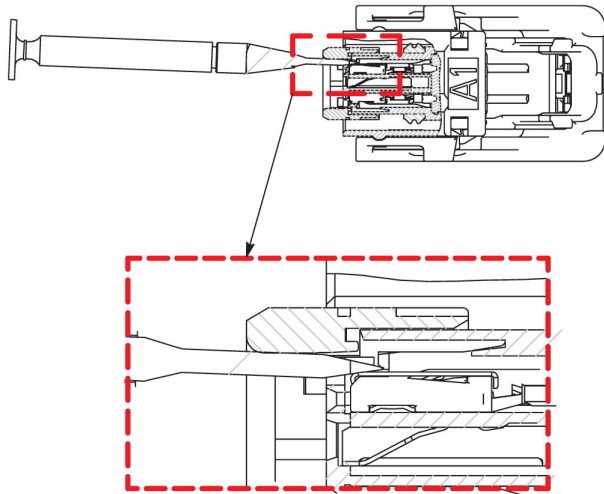
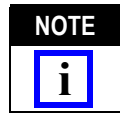


Figure 9

3. Insert a 0.8 – 1.0mm flat-blade screwdriver into the selected exposed contact cavity as shown in Figure 10.
4. Grasp the wire of the contact to be removed and push the contact forward until it stops.



5. Using the 0.8 – 1.0 mm flat-blade screwdriver, gently deflect the retention finger. See Figure 10.
6. Simultaneously pull wire and contact from the plug housing.
7. Follow Steps 3 through 6 for remaining contacts.



To reassemble the plug assembly, the TPA lock must be in the open position before insertion of terminated contacts.

5. REVISION SUMMARY

Since the previous release of 408-10078, the logo has been applied.

Figure 10