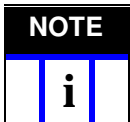


Figure 1

1. INTRODUCTION

This instruction sheet provides information on the assembly procedures for the Generation Y Unsealed Hybrid 0.64 mm/2.8 mm Contacts and Connectors. See Figure 1.



NOTE All dimensions on this document are in metric units. Figures and illustrations are for reference only and are not drawn to scale.

Read these instructions carefully before attempting any assembly procedures. Also refer to Application Specification 114-13183 (0.64 mm Contacts) for termination requirements. Contact Aptiv Automotive for termination requirements of the Apex 2.8 System.

2. DESCRIPTION

Figure 1 provides the components required to make the assembly in this instruction sheet. Contact material

is made from a copper alloy, pre-plated with tin or bright tin. The connector housings are made from glass filled thermoplastic materials.

3. ASSEMBLY PROCEDURES

3.1. Tooling

Refer to Application Specification 114-13183 for specific manual and semi-automatic termination tooling for the 0.64 mm socket contacts. Refer to FCI Specifications for specific tooling for the 2.8 mm Apex Terminal Family.

3.2. Contact Assembly

The following procedures provide the details of the contact installation into the connector housing.

1. Terminate the contacts to the correct wire size according to the information provided in the specific application specifications.

NOTE *The connector housings are shipped with the TPA in an open position, however, during shipping, the TPA may become closed or partially closed. Make sure the locks are in the OPEN position before*

any contacts can be inserted into those contact cavities. See Figure 2.

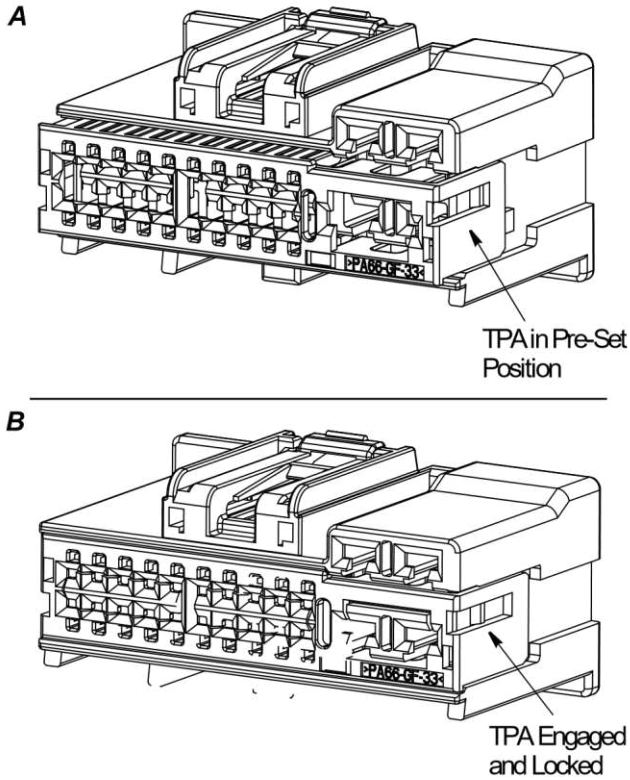


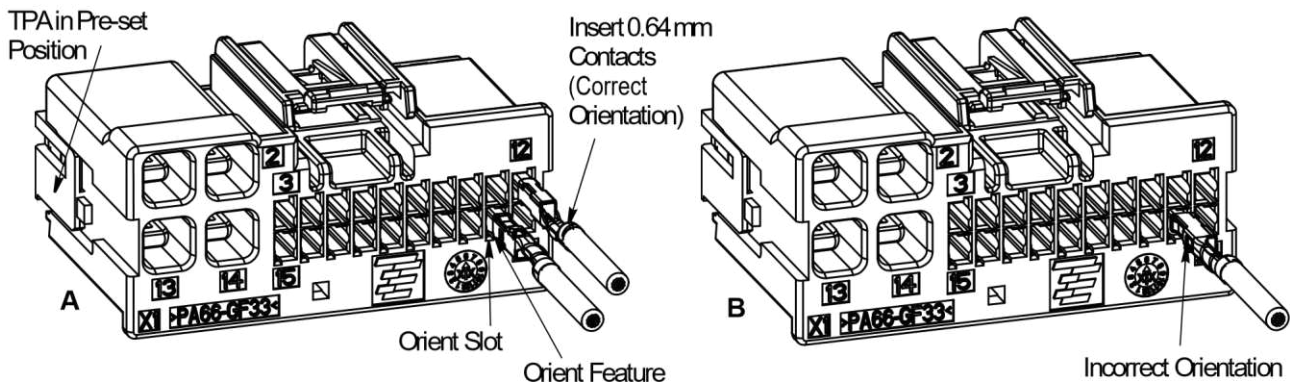
Figure 2

2. The terminated contact must be aligned with the contact cavity at the wire end of the connector and oriented as shown. See Figure 3. The 0.64 mm terminals will only easily go into cavity in one orientation (see Figure 3A - correct) (Figures 3B, 3C, 3D - incorrect). The 2.8 mm terminals can be inserted in one of two orientations (see Figure 3E - correct) (Figure 3F - incorrect).

3. Each contact must be inserted into a contact cavity until the connector primary latch engages the contact. See Figure 3. (There should be an audible and tactile click which indicates that the contact has been fully inserted.) Pull back gently to ensure the contact has been locked in place.

4. The TPA is in the CLOSED position when the locking latches are fully secure to the locking tabs. After all desired contact positions are loaded, if the TPA does not snap to the closed position with an audible and tactile feedback, and sit flush with the adjacent surfaces of the connector body, it is likely that one or more contacts are not fully installed. The TPA is the detection for partially installed terminals. Re-open the TPA and push/pull on the wire of each contact to ensure they are fully inserted and engaged with the primary contact latch in each cavity. See Figures 3G and 3H.

Contact Assembly Instructions



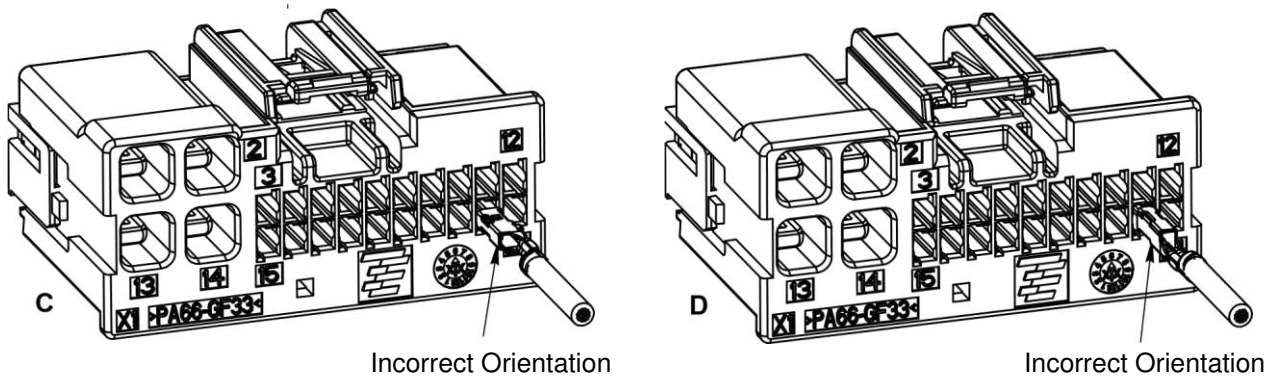


Figure 3 (Cont'd)

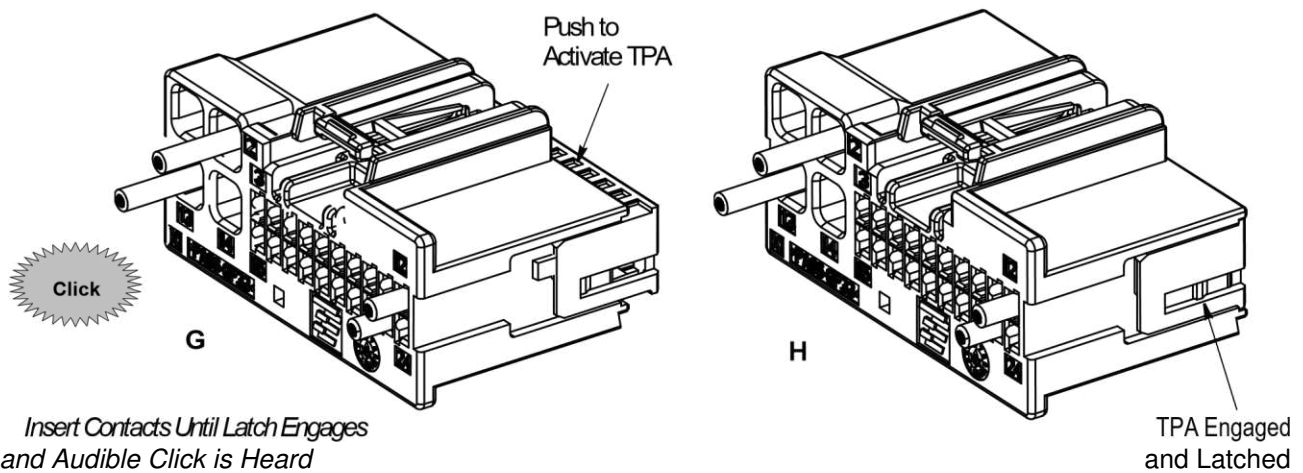
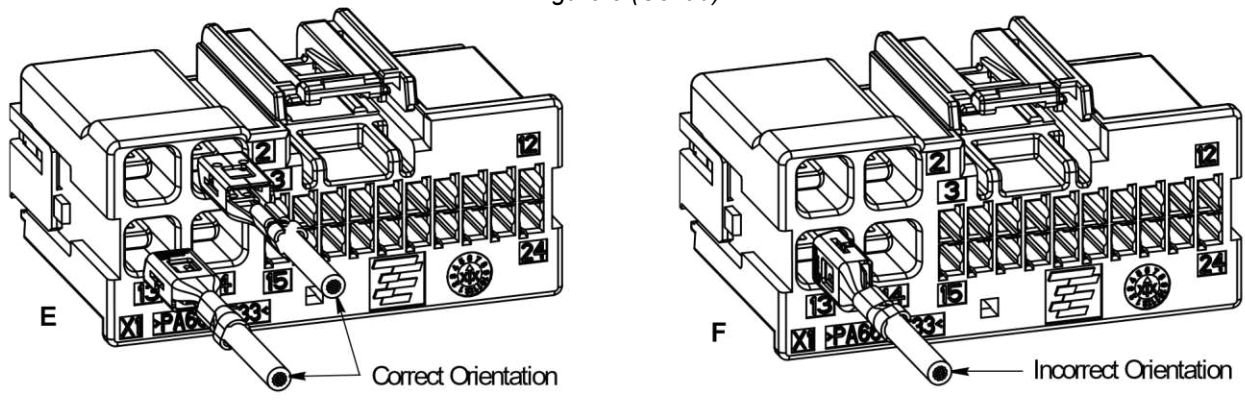



Figure 3 (End)

3.3. Contact Removal

The TPA (for the corresponding contact cavities) must be removed before any contacts can be removed from those contact cavities. The locking latches must be released from the locking tabs to

open the TPA (a small jewelers screwdriver with a maximum width of 4.0 mm must be used). The TPA must not be rotated beyond the limit.

CAUTION Care must be taken not to damage the locking features with the tool.



The locking lance of the contact must be released from the contact cavity before the contact can be removed from the socket connector. A suitable tool, (see Figure 4), must be inserted into the corresponding contact removal window to release the contact locking lance, and the wire must be pulled gently to remove the contact from the socket connector.

1. Insert contact removal tool (as detailed in Figure 4) or a jewelers/flat-bladed screwdriver (1.0 mm width) into the selected exposed contact cavity, as shown in Figure 5.
2. Grasp the wire of the contact to be removed and push the contact forward until it stops.
3. Using the contact removal tool or jewelers/flat-bladed screwdriver, gently deflect the retention finger. See Figure 5.

4. Simultaneously pull the wire and contact from the plug housing.
5. Follow Steps 1 through 4 for remaining contacts.

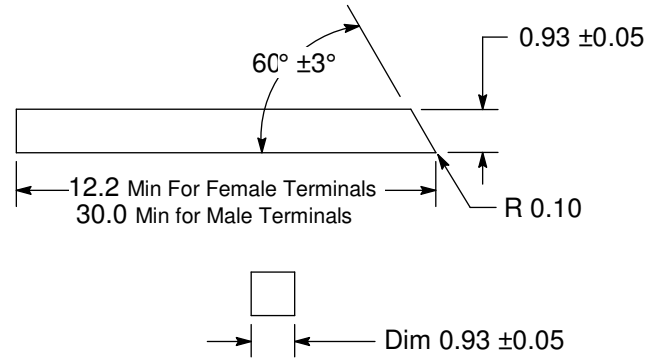
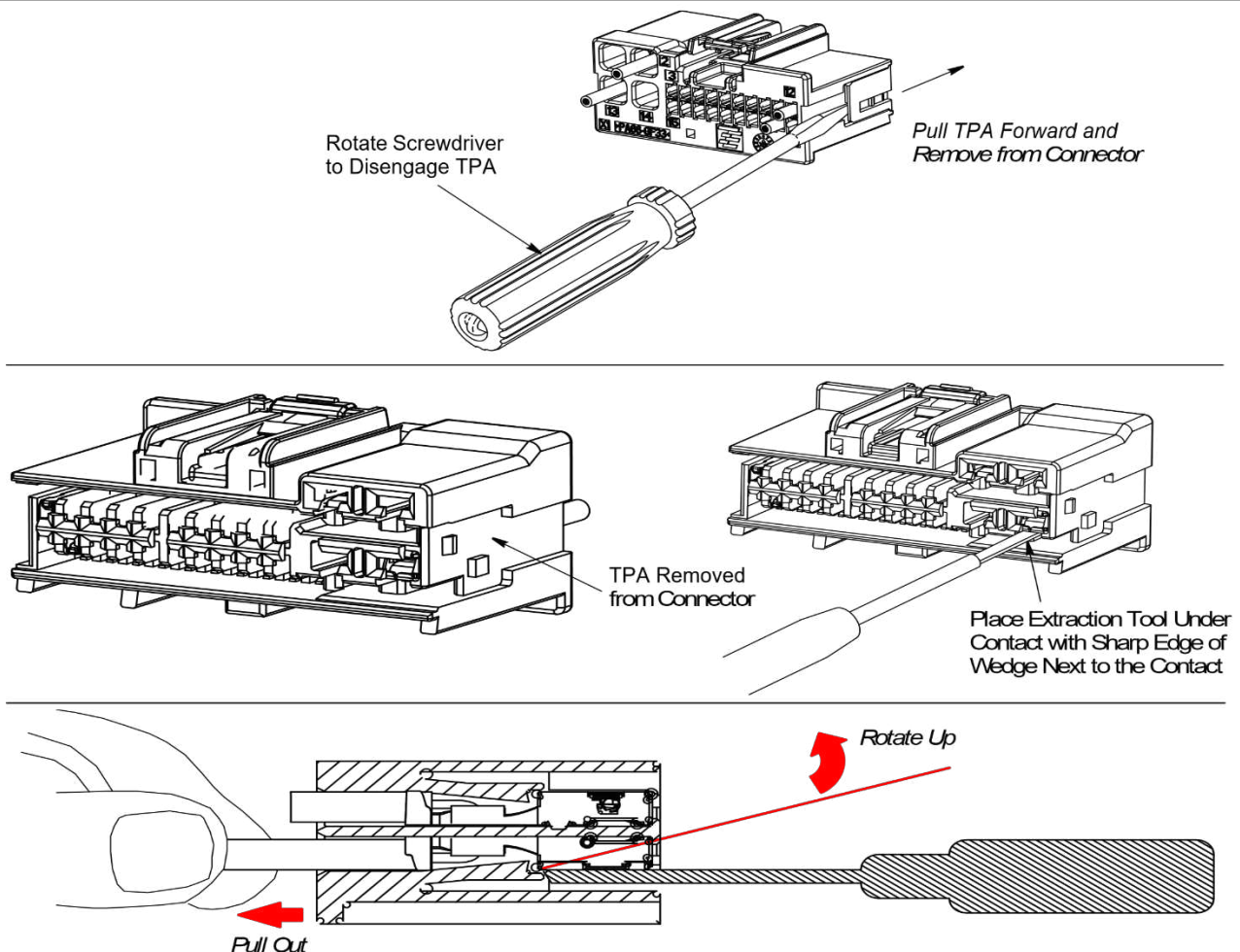


Figure 4

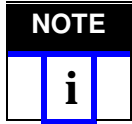


NOTE: Gently press tool toward the contact locking beam while simultaneously pulling out on wire.

Figure 5

4. TPA REPOSITIONING AND REMOVAL PROCEDURE

1. TE Connectivity recommends placing a flat-bladed screwdriver with a 3.0-5.5 mm [.118-.217 in.] width in the gap between the housing and behind the tab on the TPA. See Figure 5.
2. Place the tool tip in the gap between the housing and the TPA, pulling the corners forward, individually to disengage the side latches. See Figure 5.
3. To remove the TPA from the housing, repeat Step 3 with TPA in the pre-latched position. Grasp the TPA with your fingers and pull forward while rotating the side latches.



Disengage each side before pulling the TPA off.



DO NOT re-use damaged or worn contacts. Instead, replace them with new contacts discard the old ones.

5. Revision Summary

- 21 MAR 12: Initial release of document.
- 5 MAY 23: Updated applicable part number in title and recreation due to lost master file.