

### CONTACT

PART NUMBER	DESCRIPTION	WIRE SIZE RANGE
2098762-1	0.64mm Female Terminal	22-20 AWG
2098762-2	0.64mm Female Terminal	18 AWG
2098762-3	0.64mm Female Terminal	0.13mm <sup>2</sup>
2098762-4	0.64mm Female Terminal	0.35mm <sup>2</sup>

Figure 1

## 1. INTRODUCTION

0.64 Unsealed Hybrid Plug Assemblies 2322290-[ ] / 23115564-[ ] accept the contacts listed in Figure 1 and mate with printed circuit (pc) board mounted or free-hanging receptacle assemblies. These instructions cover assembly (inserting the contacts into the housing and mating the connectors) and disassembly (unmating the connectors and extracting the contacts from the housing) procedures.



*-This connector is intended for use in high-voltage applications. Special care must be applied to ensure that the connector functions as intended.  
-If you suspect that the connector has been modified, damaged, contaminated, or otherwise compromised, please discontinue its use immediately  
-This connector should only be serviced by a trained and qualified technician.*

Extraction Tool 1452426-1 is required for extraction of the contacts;

*Dimensions in this instruction sheet are in metric units. Figures are not drawn to scale.*

## 2. DESCRIPTION (Refer to Figure 1)

The plug assembly features a housing with a locking latch and a Terminal Position Assurance (TPA) and contact cavities for 0.64mm.

The contact cavities are polarized to prevent the contacts from being inserted upside-down. When inserted into the housing, the contact deflects the housing retention finger, locking the contact into place. After all contacts are inserted, the TPA is used to ensure that the contacts are fully seated and to provide additional contact retention. The plug assembly is shipped with the TPA in the pre-set (OPEN) position. The TPA is actuated when moved to the final-lock (CLOSED) position.

When mating connectors, the locking latch engages the locking tab of the mating receptacle assembly and prevents separation.

## 3. ASSEMBLY PROCEDURE

### 3.1. Inserting Contacts

The following procedure assumes that the contacts have been properly crimped. For the 0.64mm contacts, refer to Application Specification 114-13183 for detailed inspection requirements. Proceed as follows:

- If the TPA of the plug assembly is *not* in the OPEN position, move it to the OPEN position (as described in Paragraph 4.2, Step 2).
- Grasp the wire of the terminated contact behind the contact insulation barrel. Refer to Figure 2 and align the contact with the desired contact cavity at the wire end of the plug assembly, orienting the contact so that:
  - for 0.64mm contact, orientation tab is aligned with the alignment slot of the contact cavity

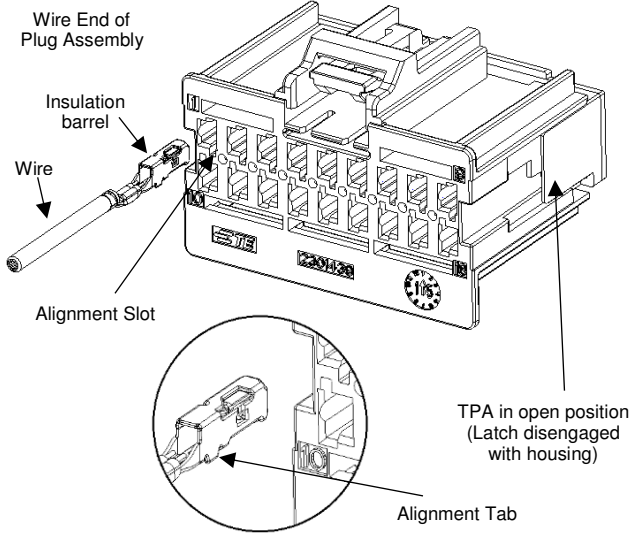
- Push the contact straight into the contact cavity until it bottoms (there will be an audible “click”).



*DO NOT force the contact into the contact cavity. If there is resistance, pull the contact out, ensure proper orientation, and re-insert the contact.*

- Lightly pull back on the wire to ensure that the contact has engaged the housing retention finger.

Inserting 0.64mm Contact



5. After all contacts are inserted, push the TPA into the housing until it is in the CLOSED position. The TPA is in the CLOSED position when it is flush with the housing and the two latches engage the housing. Check to make sure that the entire TPA is seated against the housing, and that there is no gap between each latch and the housing. See Figure 3.

**NOTE**



*If the TPA does not fully close, move it to the OPEN position, ensure that all contacts are fully seated, then try again.*

**DO NOT force the TPA to close.**

**3.2. Probe Location for Contact Verification**

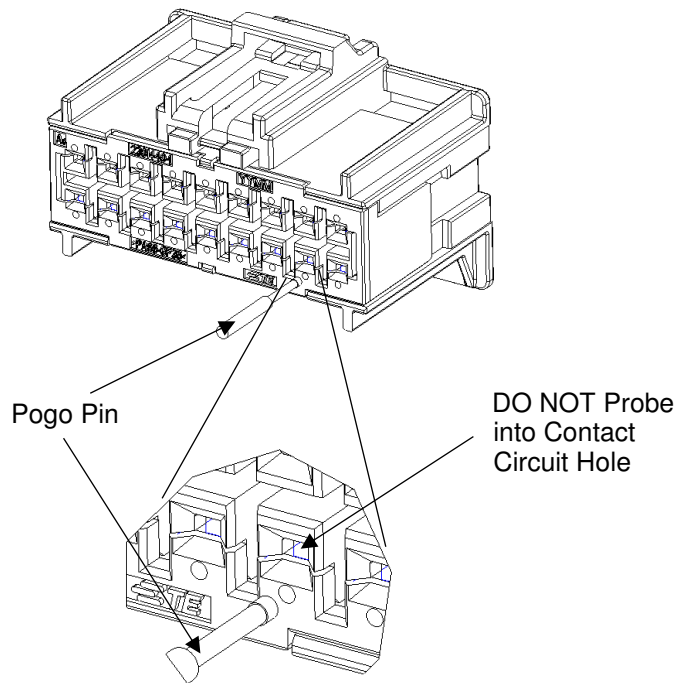
1. Access to the contacts is provided, for any continuity probing, on the mating face of the connector in an area that avoids the contacts separable interface.
2. The flat front of the contact can be accessed through contact removal window.

**CAUTION**



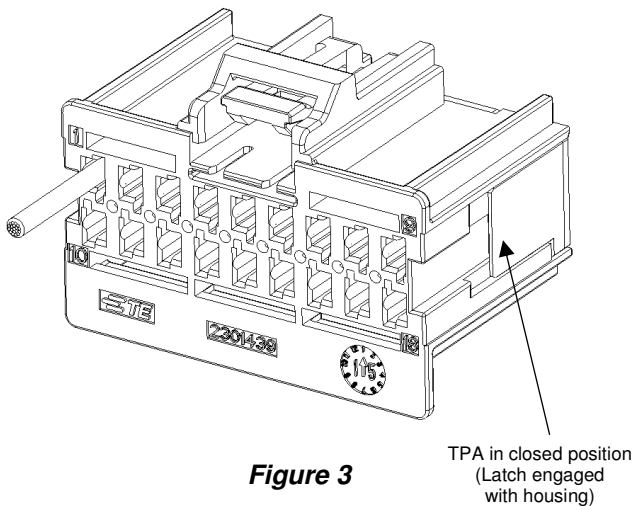
*It is not recommended to probe into the contact circuit hole.*

3. The recommended contact probe/pogo pin should have a flat tip with a diameter of 1.0mm and a max force of 1.0N.



**Figure 4**

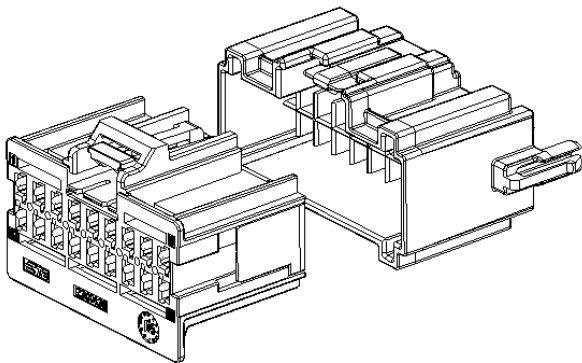
**Moving TPA to CLOSED Position**



**Figure 3**

### 3.3. Mating Connectors

1. Align the locking latch of the plug assembly with the locking tab of the mating male connector.



Depress Locking Latch of plug assembly

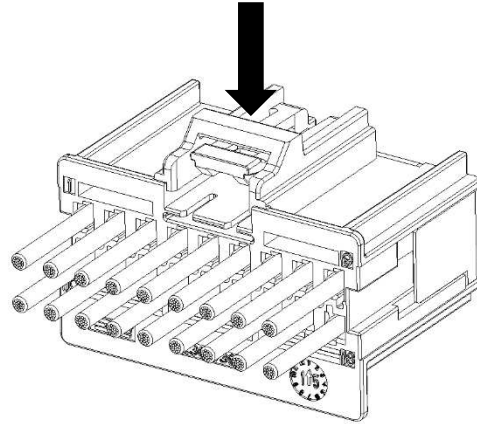
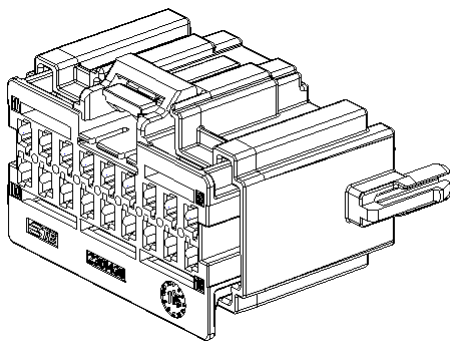


Figure 5

2. Push the plug assembly into the mating receptacle assembly, making sure that the key enters the keying slot, until the locking latch and locking tab engage (there will be an audible “click”).



Note: The header assembly contains barrier walls to prevent against high voltage access. If you suspect that this protective feature has been damaged, please replace.

### 4.2. Removing Contacts

1. Unmate the connectors (as described in Paragraph 4.1).
2. Move the TPA to the OPEN position as follows: insert and slide the tip of the screwdriver into one of the slots of the TPA (located on the bottom of the plug assembly), and pivot the screwdriver *away from* the TPA until the latch is released. Ensure that the latch (on other side of housing) is also released and that the entire TPA protrudes from the housing. The TPA flanges should now be snapped flush onto the housing side wall into the pre-set position. To remove the TPA from pre-set position, follow the same procedure. See Figure 6.
3. For contact removal, refer to Figure 7, and proceed as follows:
  - a. From the mating face of the plug assembly, insert the U-shape portion of the tip of the extraction tool into the notched edge of the contact cavity of the contact to be removed until it stops.
  - b. Hold the extraction tool in place, and *gently* push the wire of the contact to be removed toward the housing until it stops (this will relieve the pressure between the contact and the locking finger and lift the housing retention finger away from the contact retention window).
  - c. While holding the extraction tool in position, pull the wire until the contact is removed from the housing.
  - d. Pull the extraction tool straight out of the contact cavity.

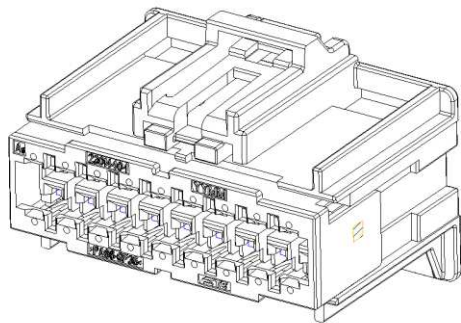
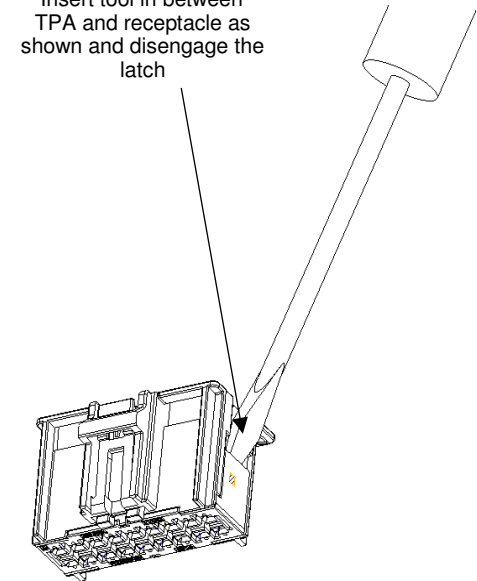
## 4. DISASSEMBLY

### 4.1. Unmating Connectors

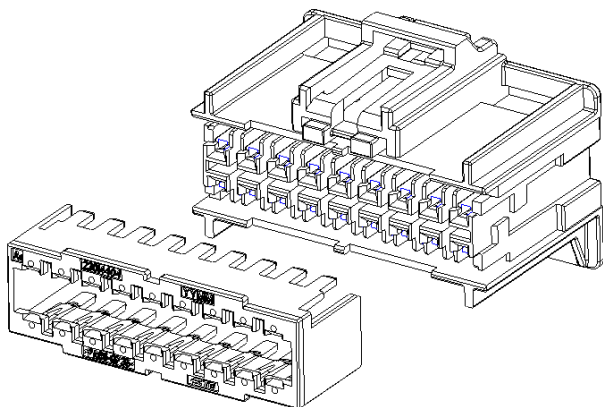
Depress the locking latch of the plug assembly, and pull the plug assembly straight away from the mating receptacle assembly. See Figure 5.

**Moving TPA to open position**

Insert tool in between TPA and receptacle as shown and disengage the latch



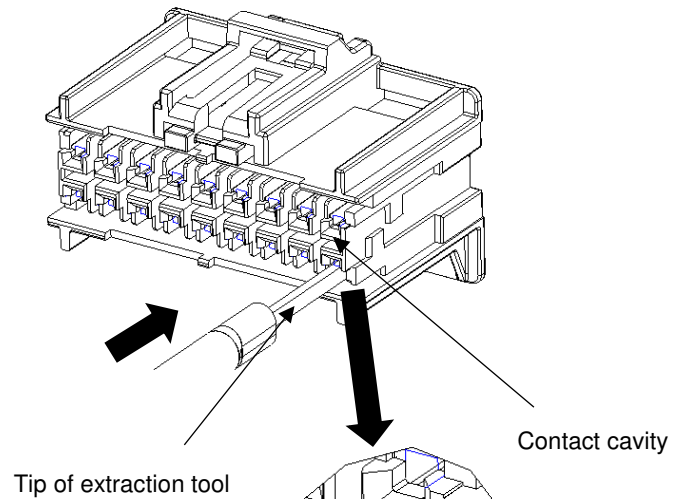
Entire TPA protrudes out



Remove TPA from pre-lock position

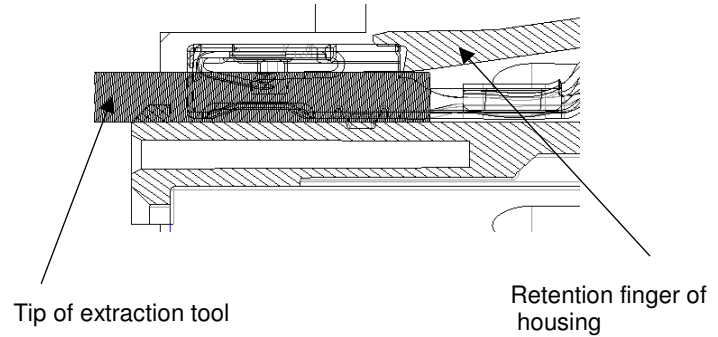
**Figure 6**

**Removing 0.64mm contacts**



Tip of extraction tool

Contact cavity



Tip of extraction tool

Retention finger of housing

**Figure 7**

4. Reinstall the TPA onto front of the plug housing. Push until it is in the CLOSED position as described in Paragraph 3.1, Step 5

Contact cavity

## 5. REPLACEMENT AND REPAIR

The contacts and plug assembly are not repairable. Discard and replace any defective or damaged contacts or connectors. DO NOT re-use a terminated contact by removing the wire.

## 6. REVISION SUMMARY

- A. Initial release of instruction sheet.