NOTE

All numerical values are in metric units [with U.S. customary units in brackets]. Dimensions are in millimeters [and inches]. Unless otherwise specified, dimensions have a tolerance of ±0.13 [±.005] and angles have a tolerance of +2°.

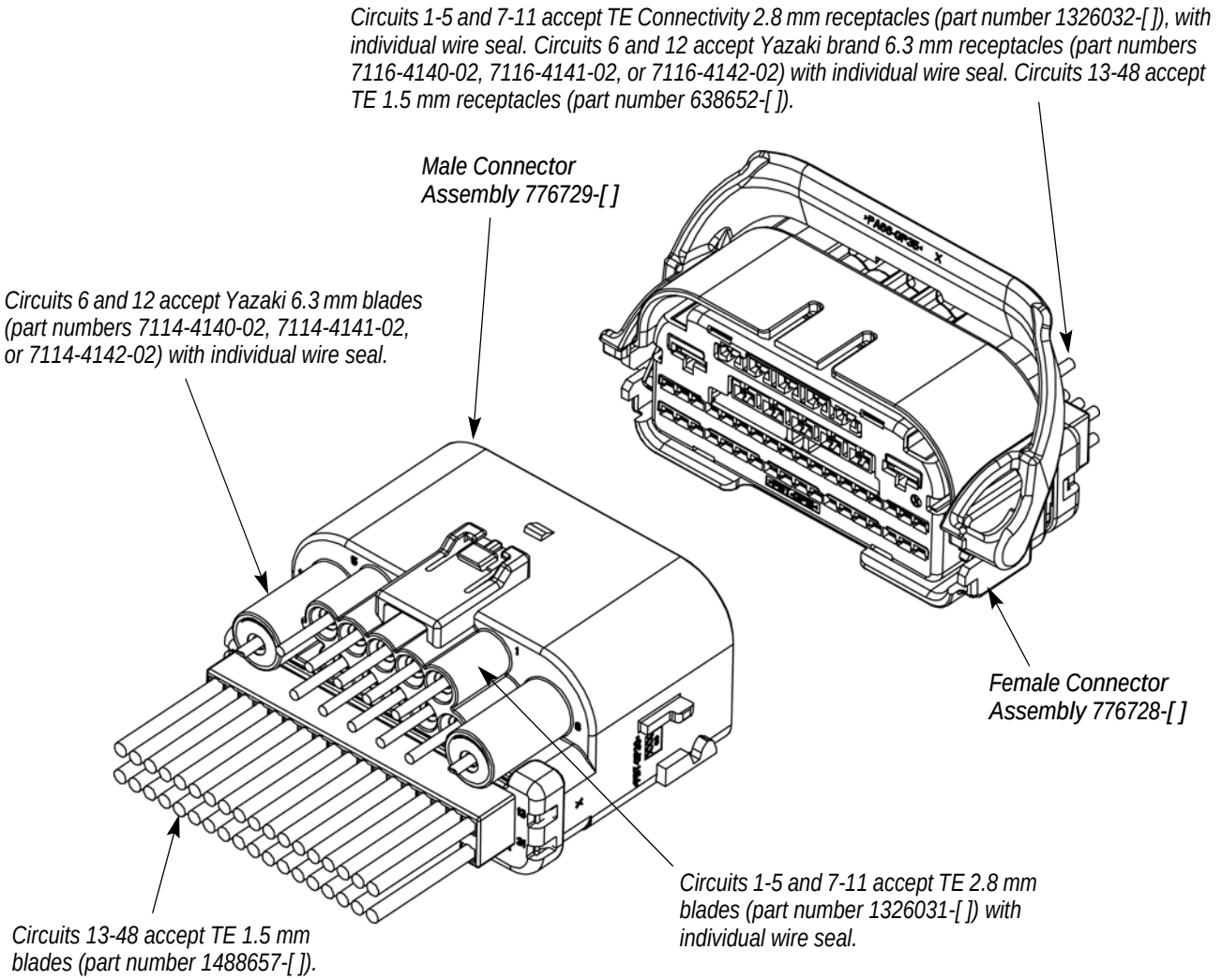


Figure 1

1. INTRODUCTION

The 48-Position In-line Hybrid Connector is an in-line wire-to-wire system used in both passenger compartment and under-hood applications. The connector system is sealed to protect against environmental exposures and utilizes three different terminal systems for various current-carrying capabilities.

The male and female connectors are shipped fully assembled and ready for terminal installation.

Specific wire sizes for terminals may be found on Customer Drawings 776728 and 776729.

The following procedures describe the proper use of this connector system and the individual components and accessories used in the connector.

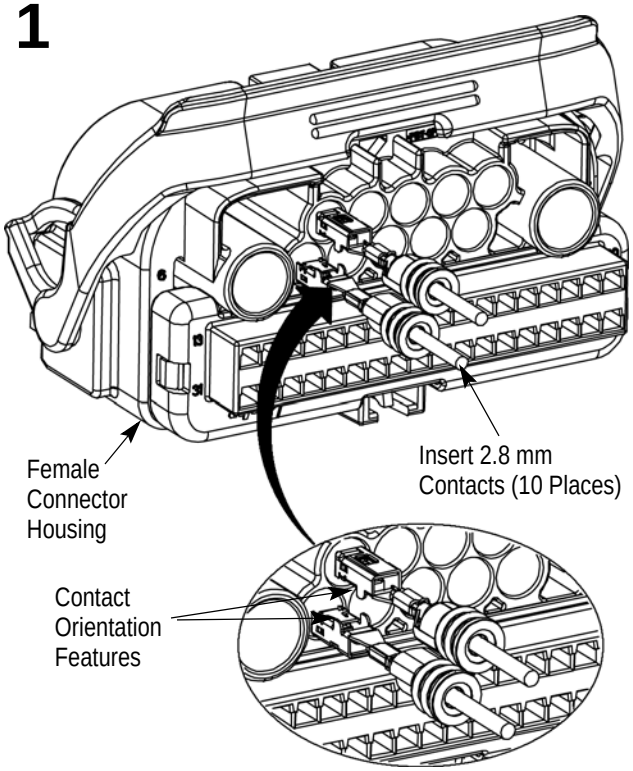
Refer to Application Specifications 114-13013 (2.8 mm contacts), 114-13091 (1.5 mm contacts), and 114-13133 (NG 1.5 mm contacts) for proper termination requirements of the terminals.

NOTE

Figures and illustrations are for reference only, and are not drawn to scale.

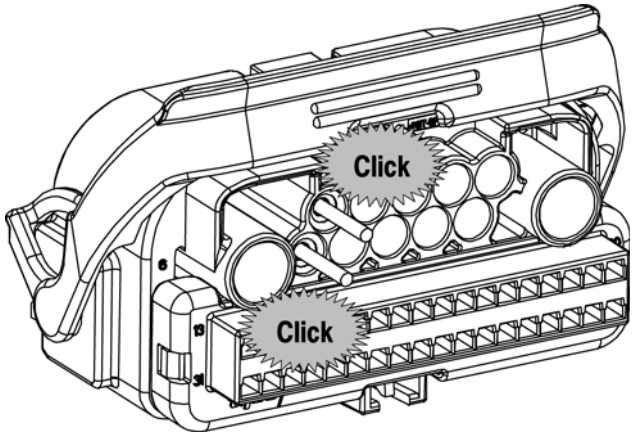
A. Female Contact Assembly Instructions (Cont'd)

1



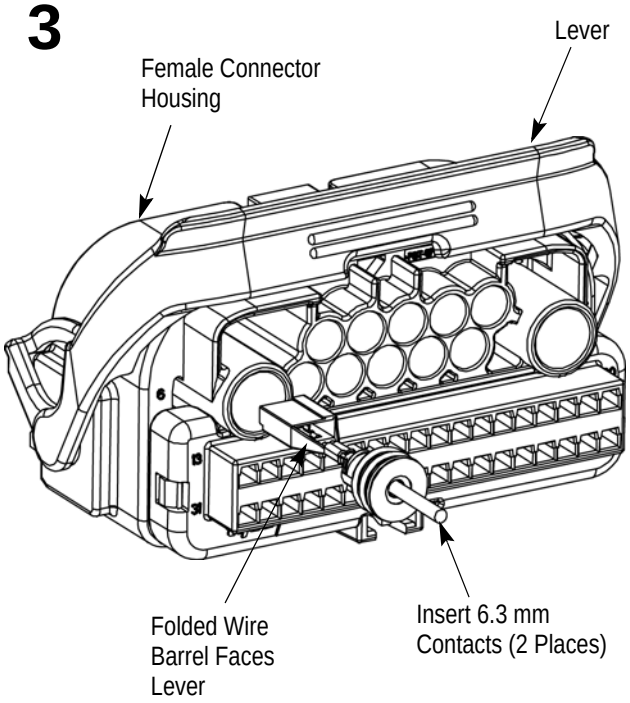
Lower contact row oriented 180° from upper contact row.

2

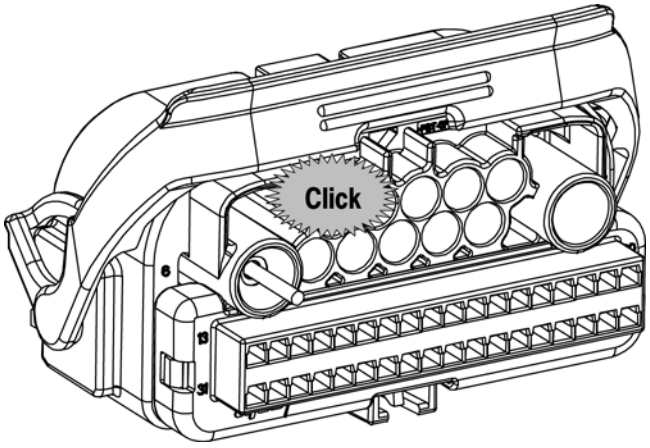


Insert contact until an audible "Click" is heard or felt. Pull slightly on wire to ensure full seating. If resistance is felt prior to full seating, refer to Section "C" to verify connector TPA is in the pre-lock position.

3



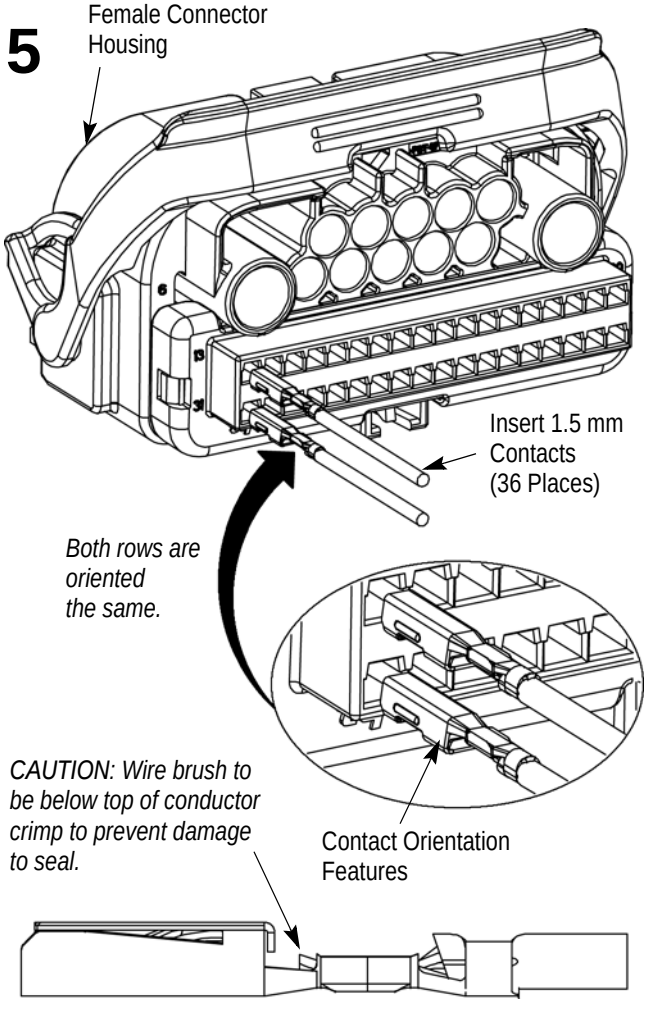
4



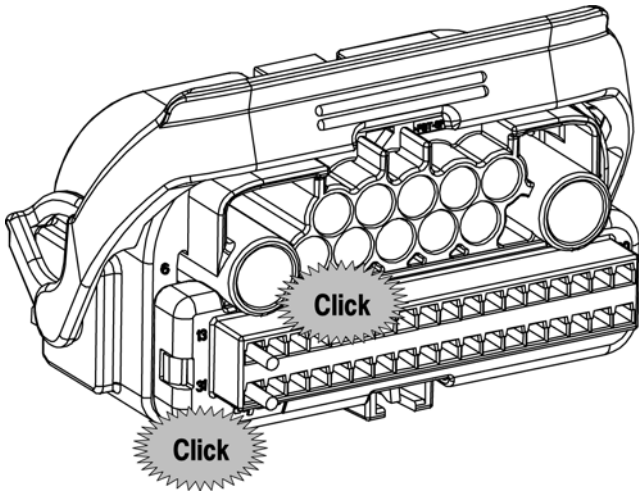
Insert contact until an audible "Click" is heard or felt. Pull slightly on wire to ensure full seating.

Female Contact Assembly Instructions (End)

5

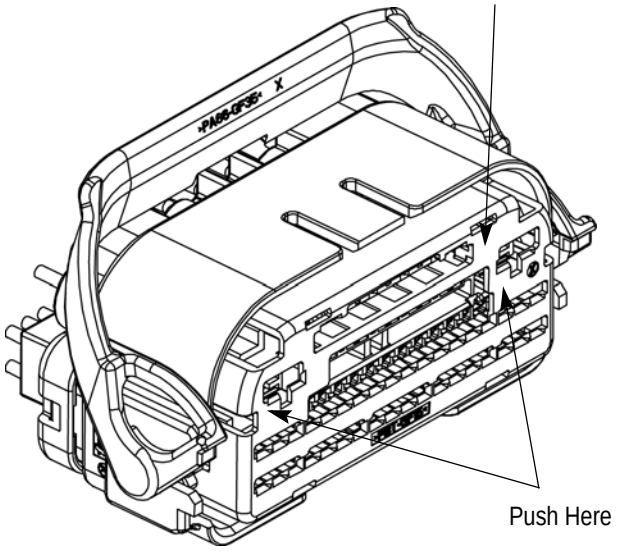


6



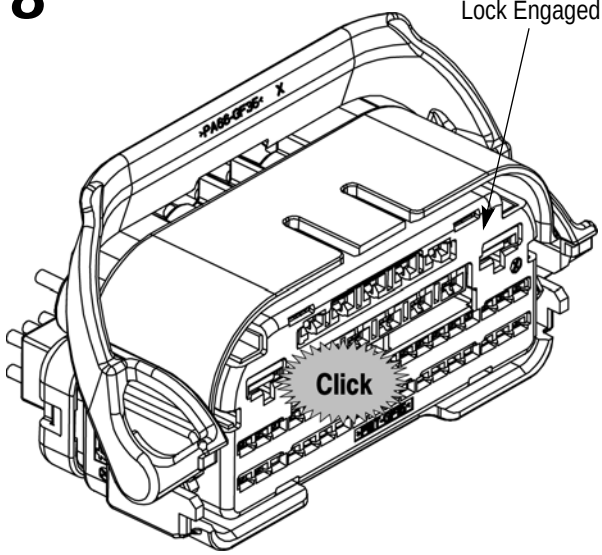
Insert contact until an audible "Click" is heard or felt. Pull slightly on wire to ensure full seating.

7



Push to activate TPA secondary lock from pre-set (out) position to fully engage.

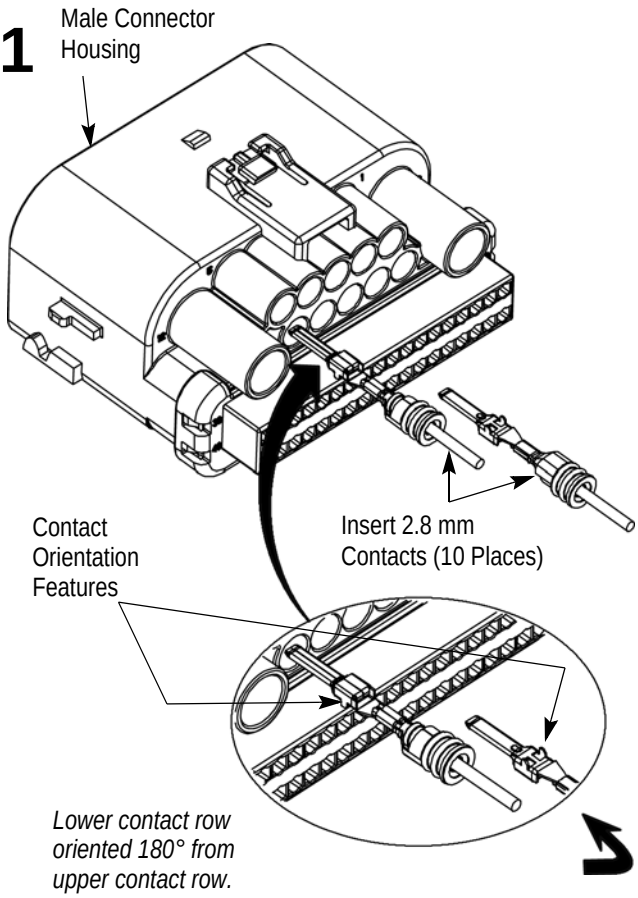
8



After all desired contacts are inserted, engage the TPA secondary lock. A physical resistance to fully engaging TPA indicates contacts are not fully inserted. Go back to Step 1. When an audible "Click" is heard, TPA secondary lock is in final position.

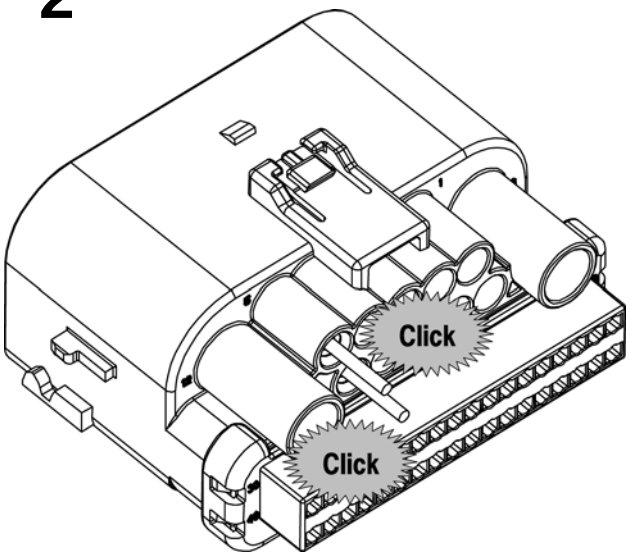
B. Male Contact Assembly Instructions (Cont'd)

1



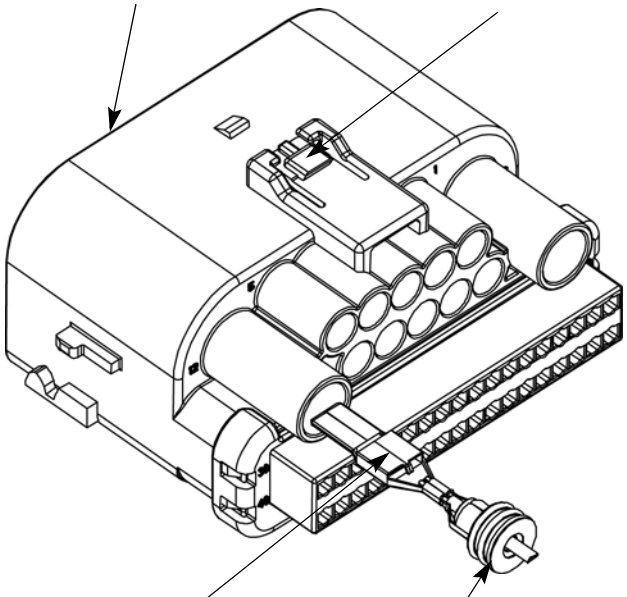
Lower contact row oriented 180° from upper contact row.

2

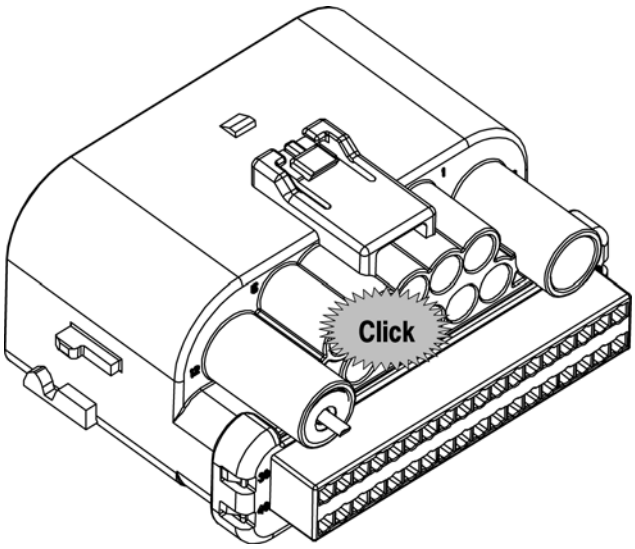


Insert contact until an audible "Click" is heard or felt. Pull slightly on wire to ensure full seating. If resistance is felt prior to full seating, refer to Section "D" to verify connector TPA is in pre-lock position.

3



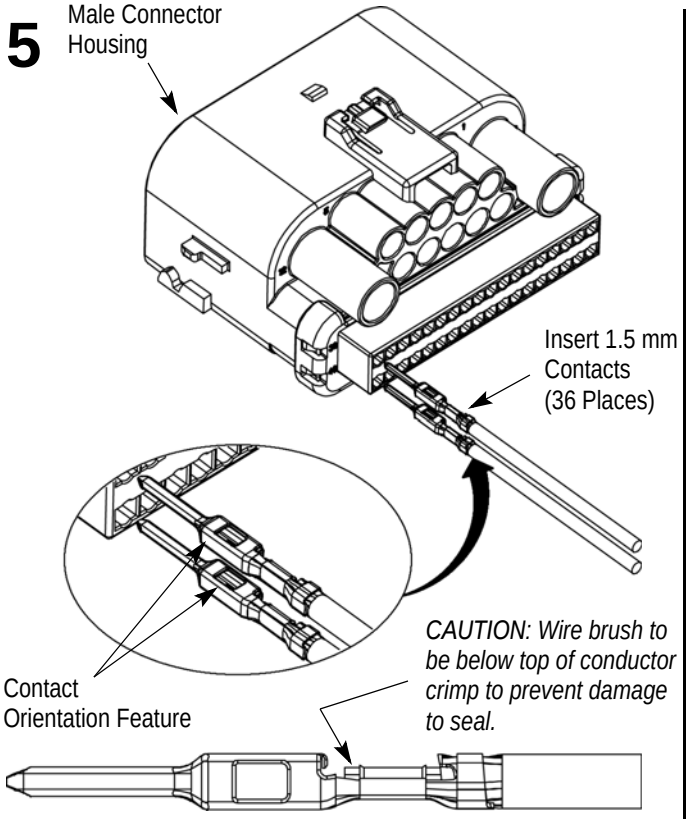
4



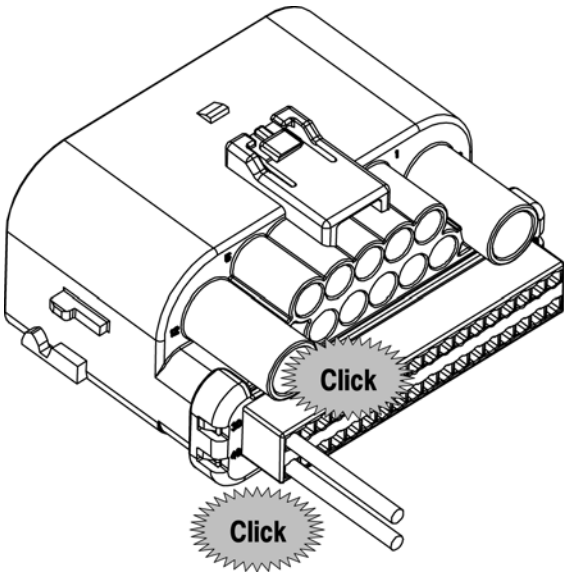
Insert contact until an audible "Click" is heard or felt. Pull slightly on wire to ensure full seating.

Male Contact Assembly Instructions (End)

5



6

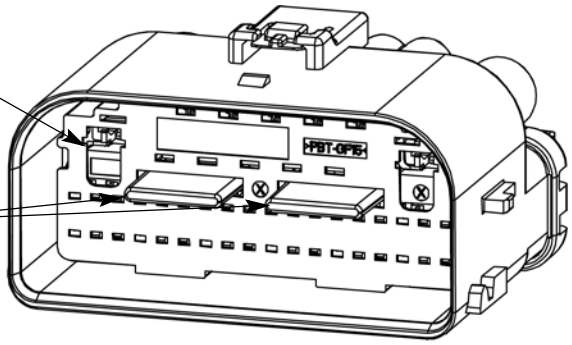


Insert contact until an audible "Click" is heard or felt. Pull slightly on wire to ensure full seating.

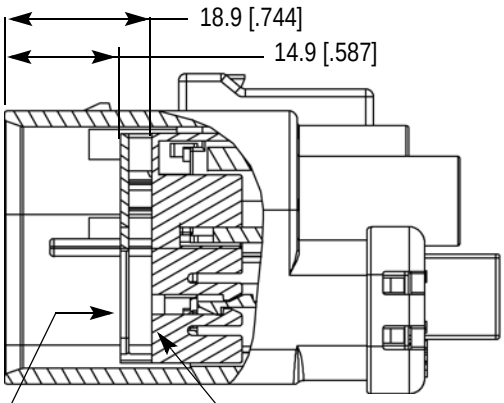
All male terminals should extend through the alignment plate.

Push TPA here to seat TPA without seating alignment plate. A physical resistance indicates contacts may not be fully seated - go back to Step 1.

7a



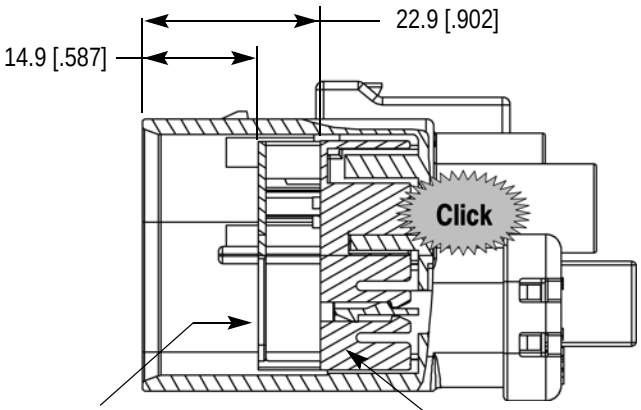
7b



Alignment Plate in Pre-Locked Position

TPA in Pre-Locked Position

7c



Alignment plate remains in pre-locked position and is seated when fully assembled connectors are mated (Section E).

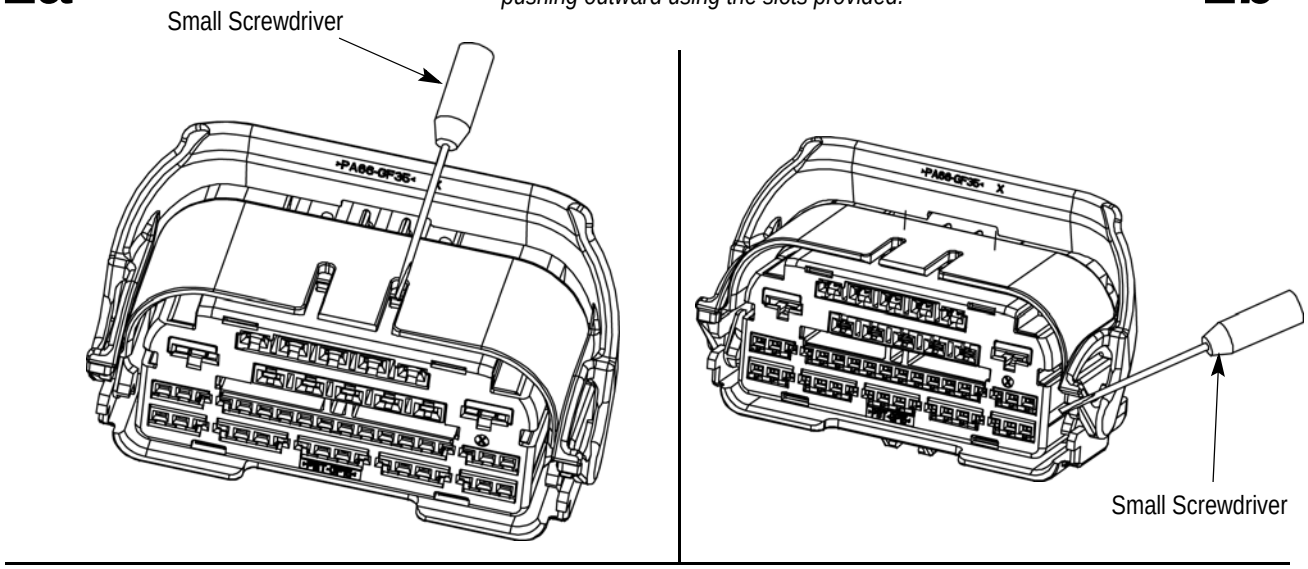
TPA in Fully Seated Position

C. Female Contact Disassembly Instructions (Use Small Screwdriver)

1a

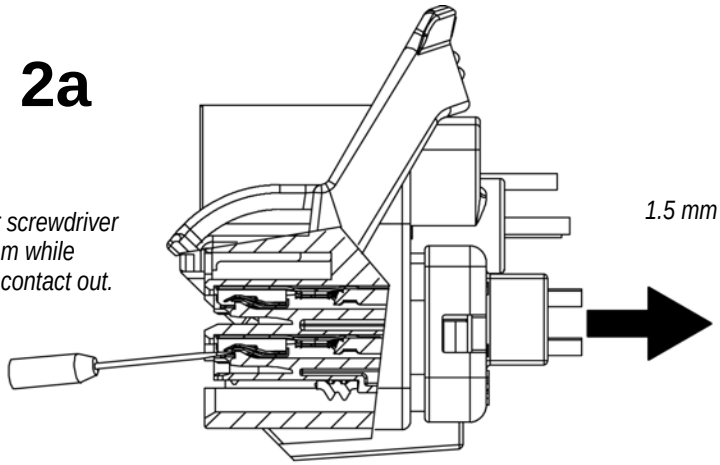
Remove TPA with small screwdriver by pushing outward using the slots provided.

1b



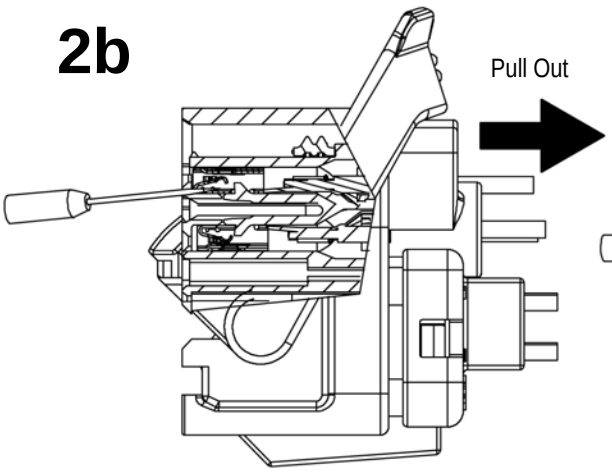
2a

Use 1.0 mm or smaller screwdriver to release latching beam while simultaneously pulling contact out.



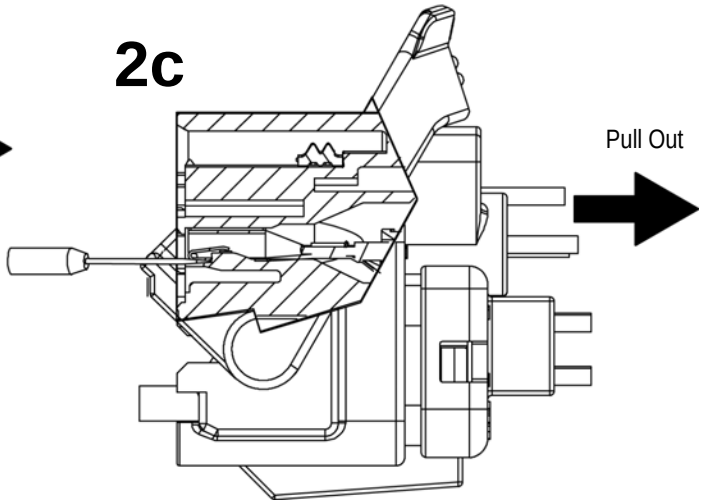
1.5 mm Terminal Extraction

2b



2.8 mm Terminal Extraction

2c

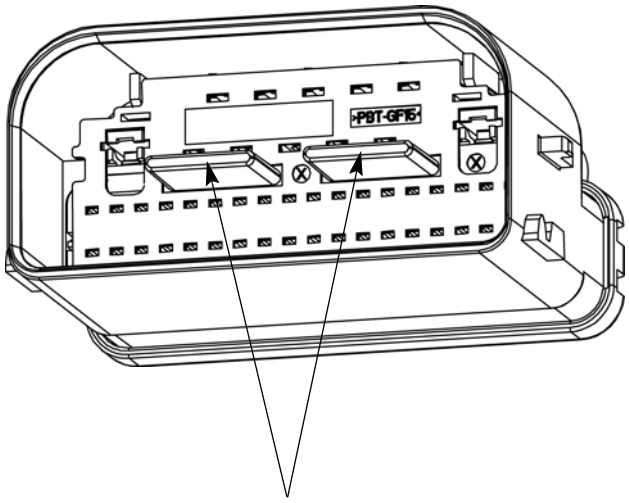


6.3 mm Terminal Extraction

D. Male Contact Disassembly Instructions (Use Pliers and Small Screwdriver) (Cont'd)

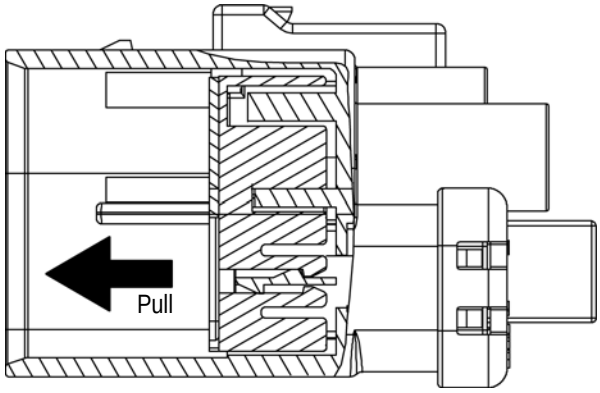
1a

Remove the TPA and Alignment Plate

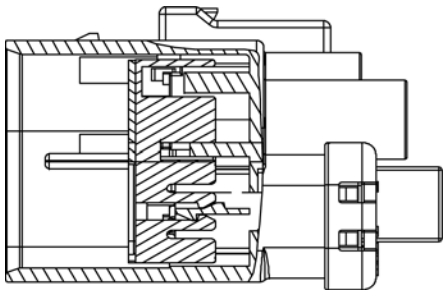


Pull TPA Posts with pliers to remove TPA and alignment plate simultaneously.

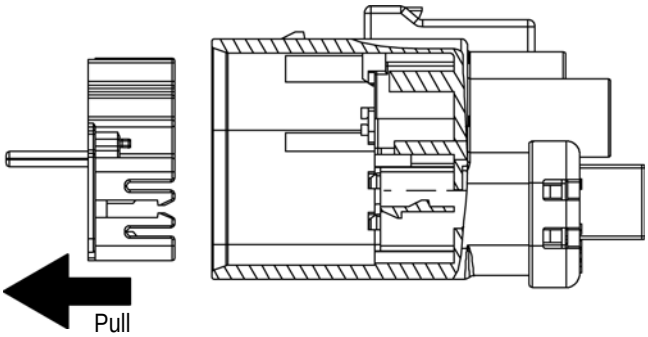
1b



1c



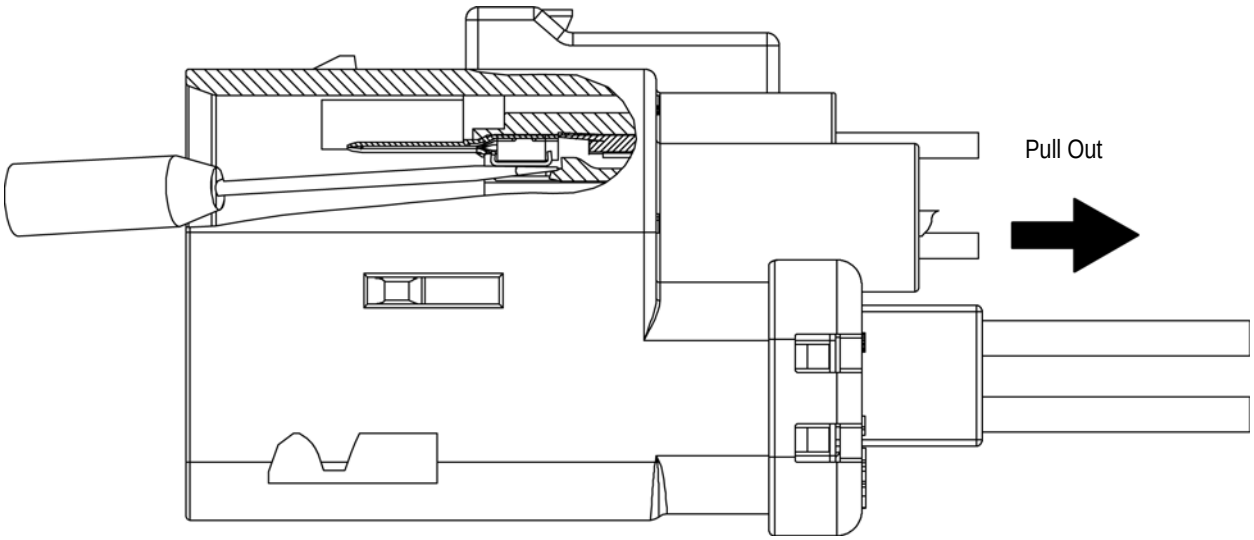
1d



Male Contact Disassembly Instructions (Use Pliers and Small Screwdriver) (End)

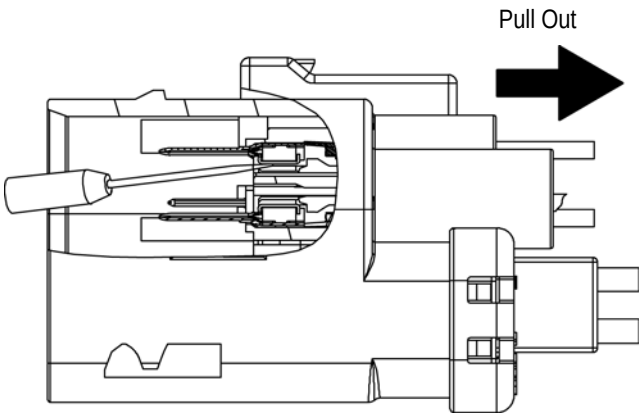
2a

Use 1.0 mm or smaller screwdriver to release latching beam while simultaneously pulling contact out.



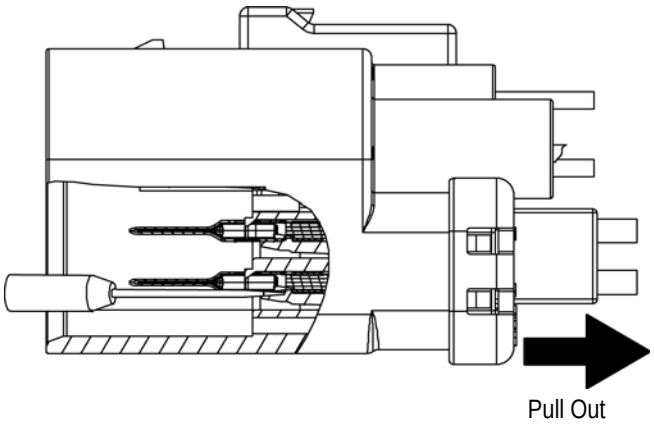
6.3 mm Terminal Extraction

2b



2.8 mm Terminal Extraction

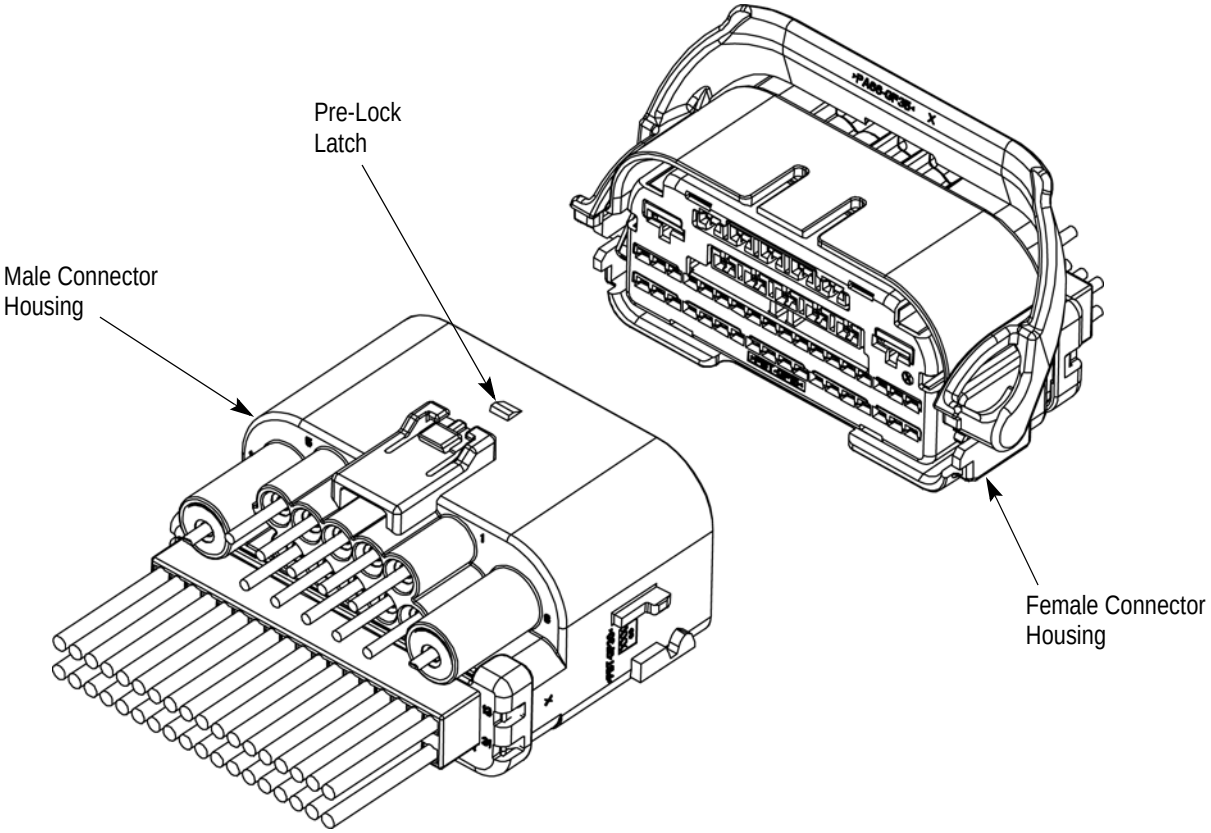
2c



1.5 mm Terminal Extraction

E. Connector Mating Instructions (Cont'd)

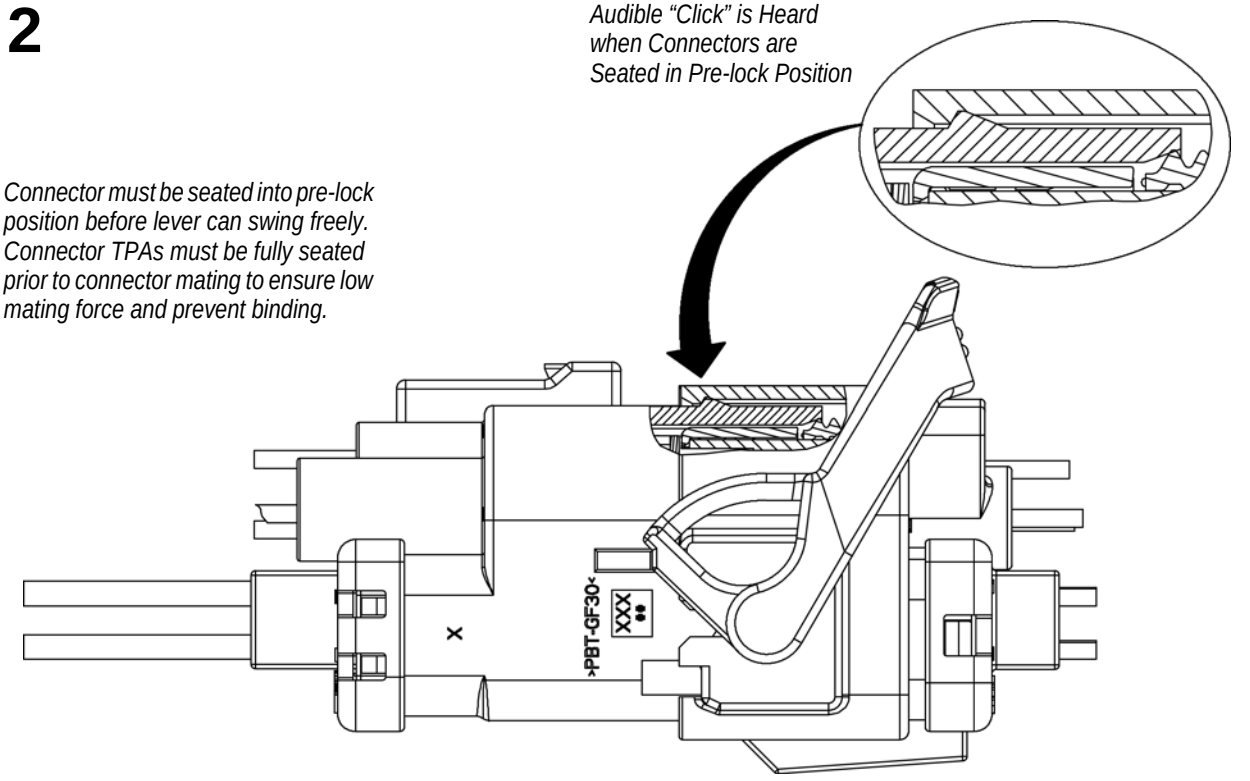
1



2

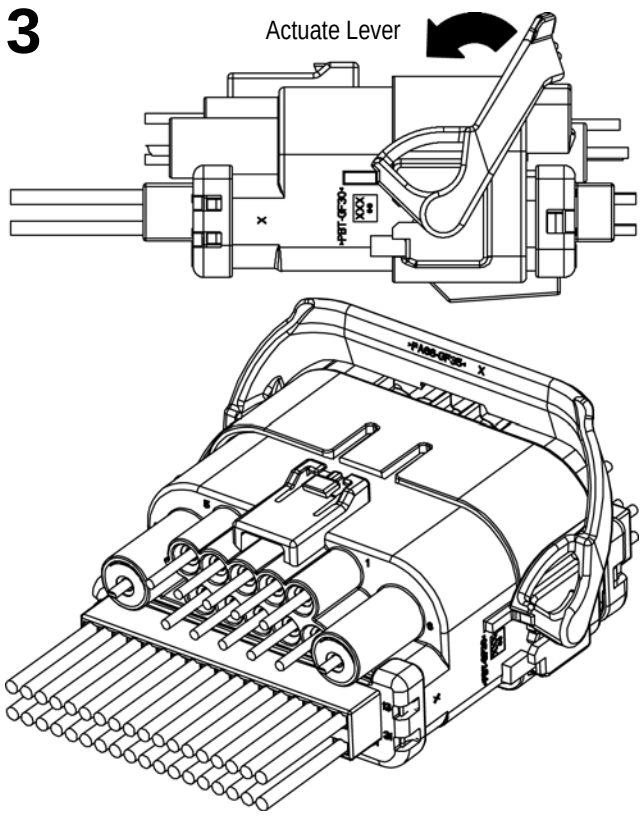
Audible "Click" is Heard when Connectors are Seated in Pre-lock Position

Connector must be seated into pre-lock position before lever can swing freely. Connector TPAs must be fully seated prior to connector mating to ensure low mating force and prevent binding.

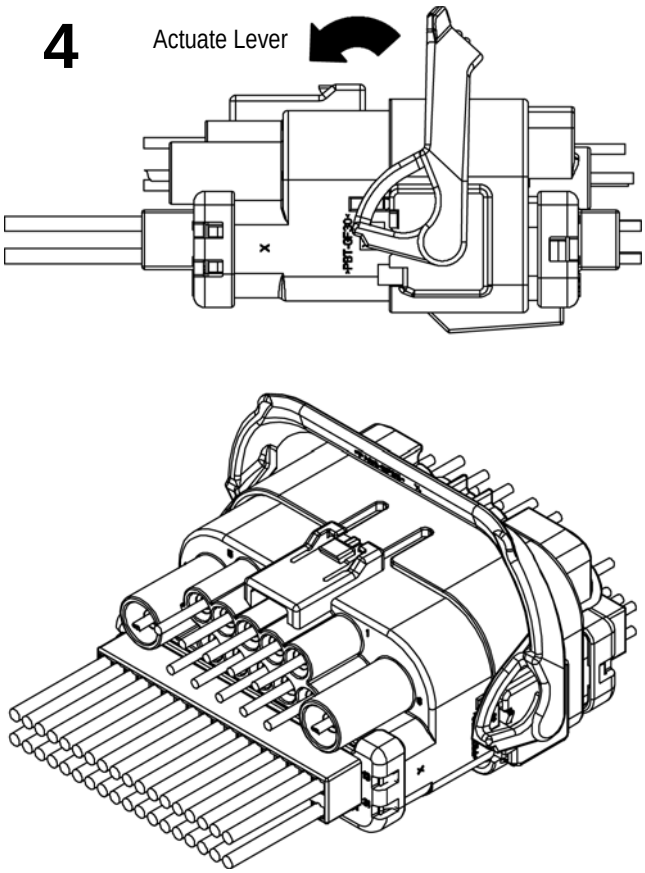


Connector Mating Instructions (End)

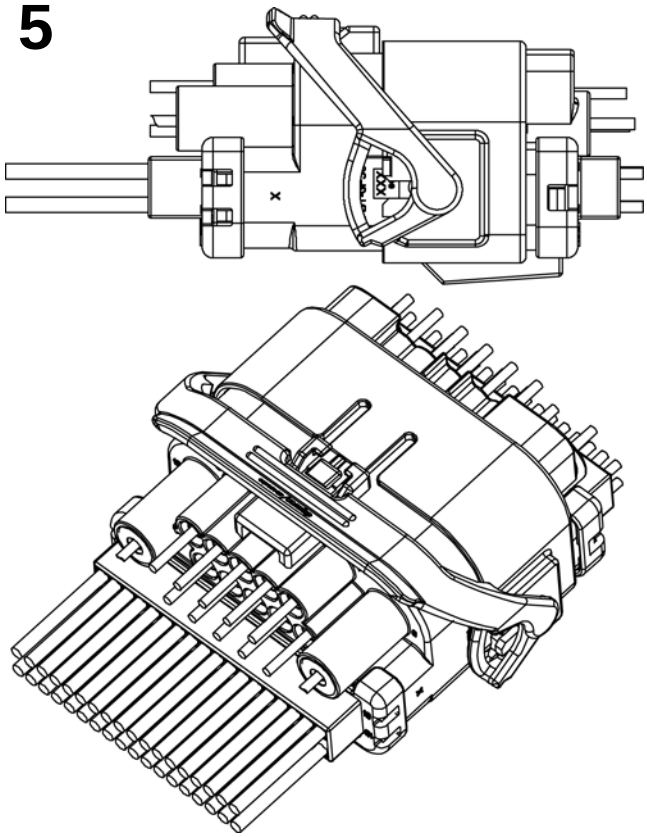
3



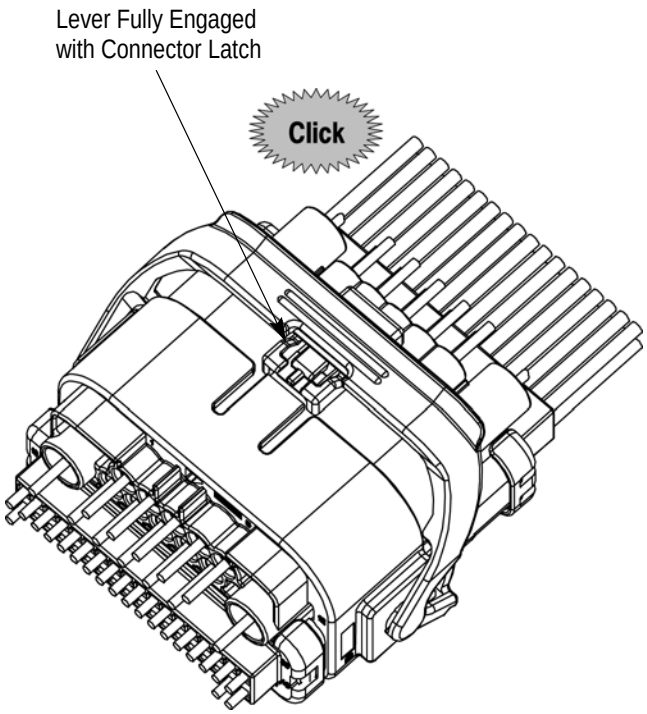
4



5

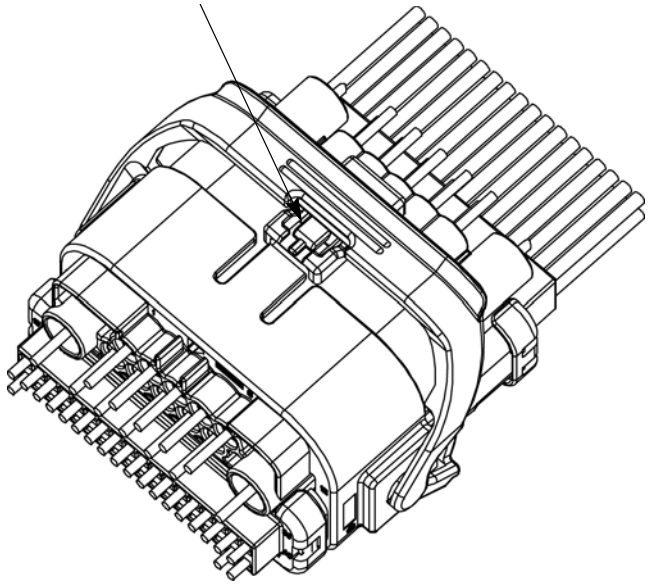


6

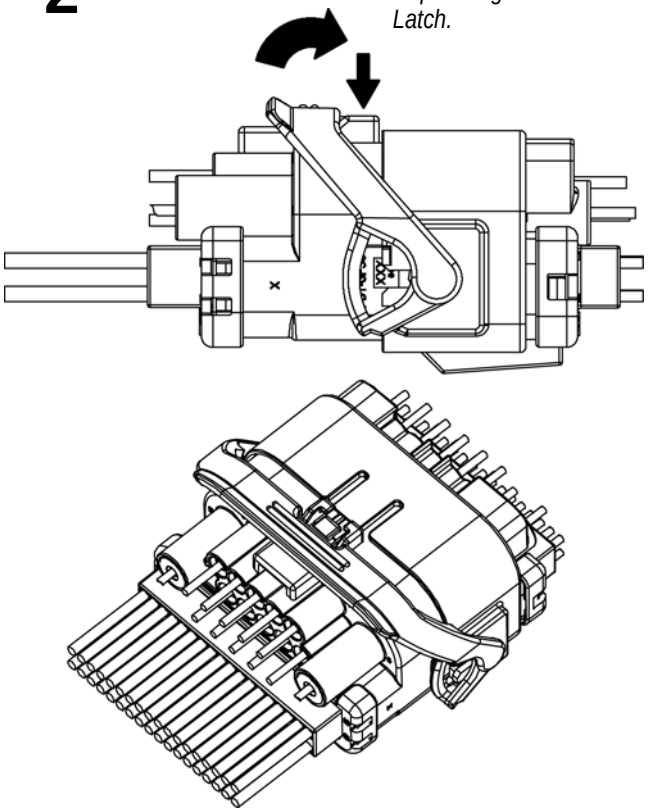


F. Connector Unmating Instructions

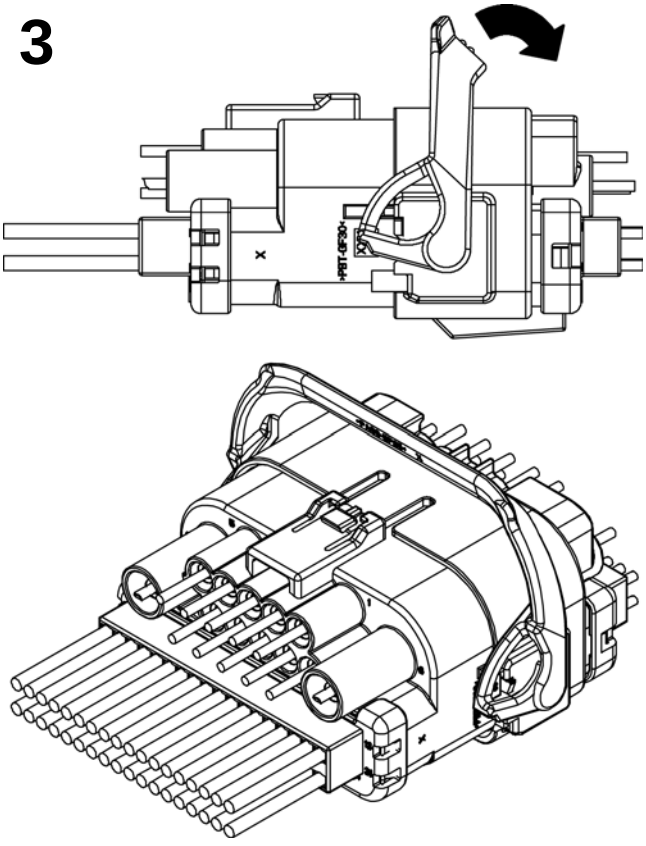
1 *Press Latch Down to Disengage Lever from Connector.*



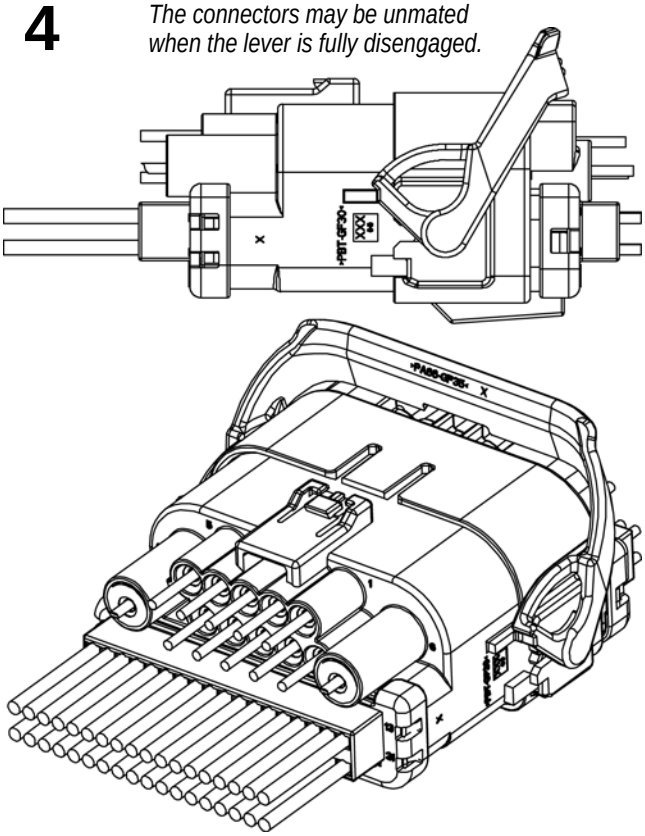
2 *Pull Lever Open While Depressing Connector Latch.*



3

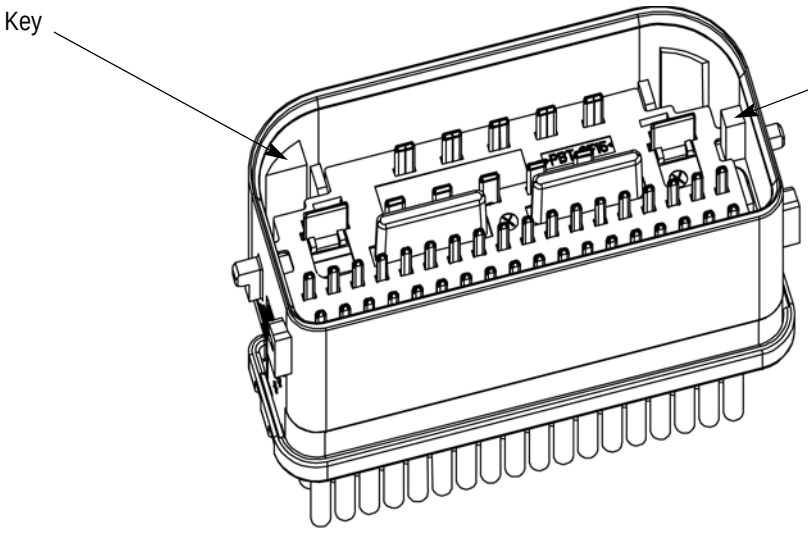


4 *The connectors may be unmated when the lever is fully disengaged.*

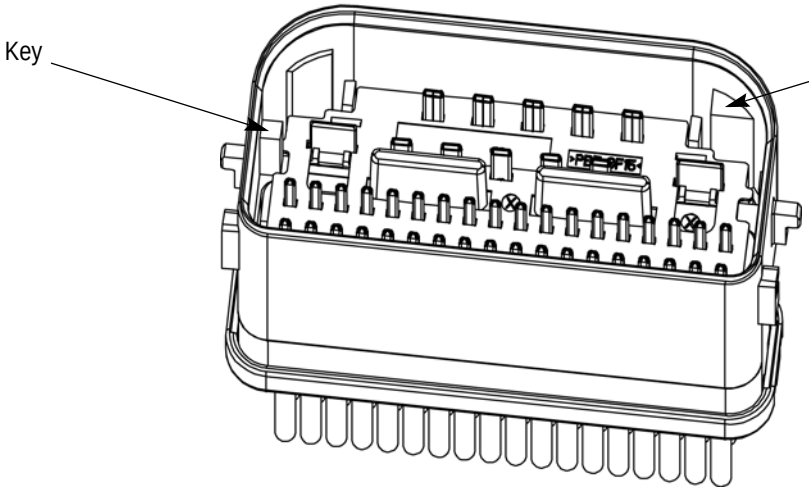


G. Connector Polarization

The 48-Position In-line Hybrid Connectors are color-coded and have keying features to ensure proper polarization.



Index A
Color - Black



Index B
Color - Natural

2. REVISION SUMMARY

Since the previous version of this document, the following changes were made:

- Removed superseded parts from Figure 1.
- Updated document to corporate requirements.