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°. Figures and illustrations are for identification only and are not drawn to scale.

1. INTRODUCTION

This specification covers the requirements for application of TE Connectivity (TE) STRIKE series connector system. The system features a lever lock system and offers two different housing sizes, 32 and 64-pin arrangements which accept DEUTSCH size 16 and 20 solid (machined) or stamped & formed contacts.

The plug and receptacle each consist of a housing and TPA. The TPA is used to ensure that the contact is fully seated and secure in the connector. The connector is shipped with the TPA in the open position ready to accept contacts. These connectors feature integral keying and latch-style mating. The housings contain a keying letter, which is embossed on the both the plug and receptacle housings.

Basic terms and features of this product are provided in Figure 1 (32-pin configuration shown as example).

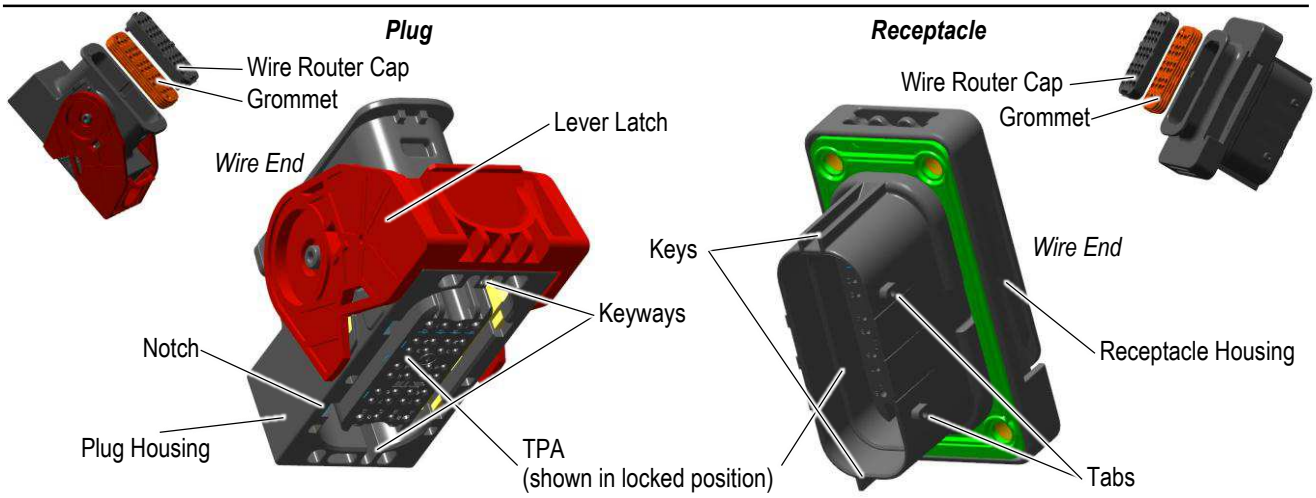

Figure 1

2. REFERENCE MATERIAL

2.1. Revision Summary

Initial release of application specification

2.2. Customer Assistance

Reference Product Base Part Numbers SRK06-MDX-32A-001, SRK02-MDX-32A-001, SRK06-FLX-64A-001, and SRK02-FLX-64A-001 (X = A to J keys) and Product Code J808 are representative of DEUTSCH STRIKE series connector system. Use of these numbers will identify the product line and help you to obtain product and tooling information when visiting www.te.com or calling the number at the bottom of page 1.

2.3. Drawings

Customer drawings for product part numbers are available from www.te.com. Information contained in the customer drawing takes priority.

2.4. Specifications

108-151023 STRIKE Series Product Specification

114-151000 Application Specification for DEUTSCH Size 16 S&F Pin & Socket

2.5. Instructional Material

Instruction sheets (408-series) provide product assembly instructions or tooling setup, and operation procedures and customer manuals (409-series) provide machine setup and operating procedures. Instructional material that pertain to this product are:

408-151008 DEUTSCH Removal Tool DT-RT1 for Front-Release Connectors

3. REQUIREMENTS

3.1. Safety

Do not stack product shipping containers so high that the containers buckle or deform.

3.2. Storage

A. Ultraviolet Light

Prolonged exposure to ultraviolet light may deteriorate the chemical composition used in the product material.

B. Shelf Life

The product should remain in the shipping containers until ready for use to prevent deformation to components. The product should be used on a first in, first out basis to avoid storage deterioration could adversely affect performance.

C. Chemical Exposure

Do not store product near any chemical listed below as they may cause stress corrosion cracking in the material.

Alkalis	Ammonia	Citrates	Phosphates	Sulfur Compounds
Amines	Carbonates	Nitrites	Sulfur Nitrites	Tartrates

NOTE
Where the above environmental conditions exist, phosphor--bronze contacts are recommended instead of brass if available.

3.3. Characteristics

A. Operating Temperature

These contacts are designed to operate in a temperature range of -55 to +125°C [-67 to +257°F].

B. Materials

Housings, TPA, Wire Router Cap: PBT 30GF (black)
Lever Latch: PBT 30GF (red)
Cams: PBT 30GF (yellow)
Interface Seal: VMQ (green)
Flange Seal: VMQ (green)
Grommet: VMQ (red-orange)
Threaded Inserts: Brass

C. Backshell Accessory

Backshells are an optional accessory that can complement the DEUTSCH STRIKE Series connectors. They are designed to snap onto the connectors and accept convoluted tubing. In addition, they assist with wire routing to ease engagement and disengagement of the lever lock.

D. Sealing

Contact Size	Conductor Size	Minimum Insulation OD mm [in]	Maximum Insulation OD mm [in]
16	14-20 AWG (2.0-0.5mm²)	1.55 [.061]	3.05 [.120]
20	16-22 AWG (1.0-0.35mm²)	1.55 [.061]	2.41 [.095]

3.4. Contact Insertion

1. The contacts must meet the requirements given in 0425-205-0000 (solid), 0425-059-0000 (stamped & formed), and 114-151000 (stamped & formed).

2. Ensure TPA is in the open position before inserting contacts.

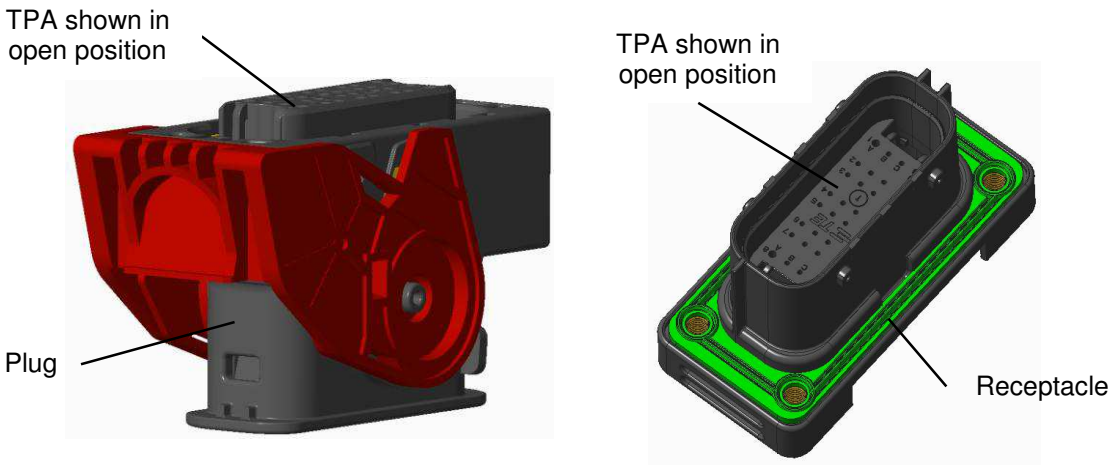

Figure 2

3. Push contacts straight into the grommet until a positive stop is felt. A slight tug will confirm that it is properly locked in place.

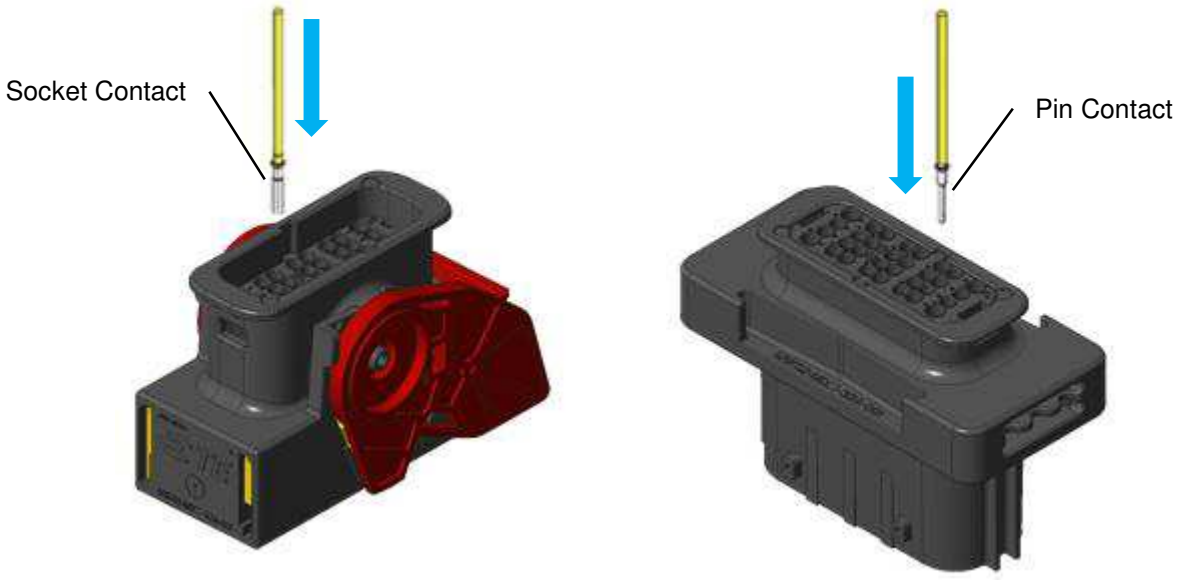

Figure 3

4. The TPA may be closed by pushing by hand. For the receptacle, the DT-RT1 and SRK-MT-02 may be used to assist in closing. The TPA will not close unless all of the contacts are fully seated in the connector.

NOTE
Push force < 40 N. If higher, make sure all contacts are in place before attempting to close again.

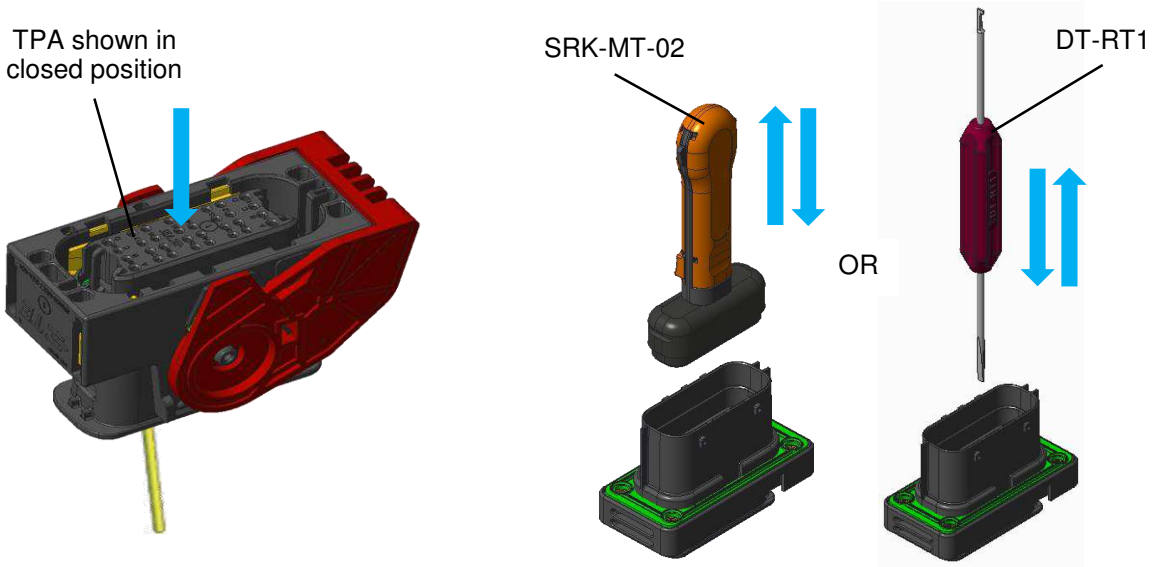

Figure 4

3.5. Contact Removal

1. Using the hook tip of the DT-RT1 tool, (1) gently (less than 10 N of force) push out the locking clip on one side of the TPA, (2) rotate the hook so that it grabs the bottom of the snap, and (3) pull up very gently (less than 10 N of force) so that it unhooks the lower snap on the connector as shown in Figure 5. It will not take much effort to do this. Do the same for the lower snap on the other side of the TPA as shown. You may need to hold one end with your finger while you unhook the other end. Now repeat that process for the upper snap on both sides of the TPA. Plug is shown as an example. Use the same method to remove the TPA from the receptacle.

NOTE
See Appendix A for more detailed information on removing the TPA.

CAUTION
The DT-RT1 removal tool has sharp ends that can cause bodily harm. Be sure to wear proper eye protection when using the tool and avoid pulling the tool toward yourself and others.

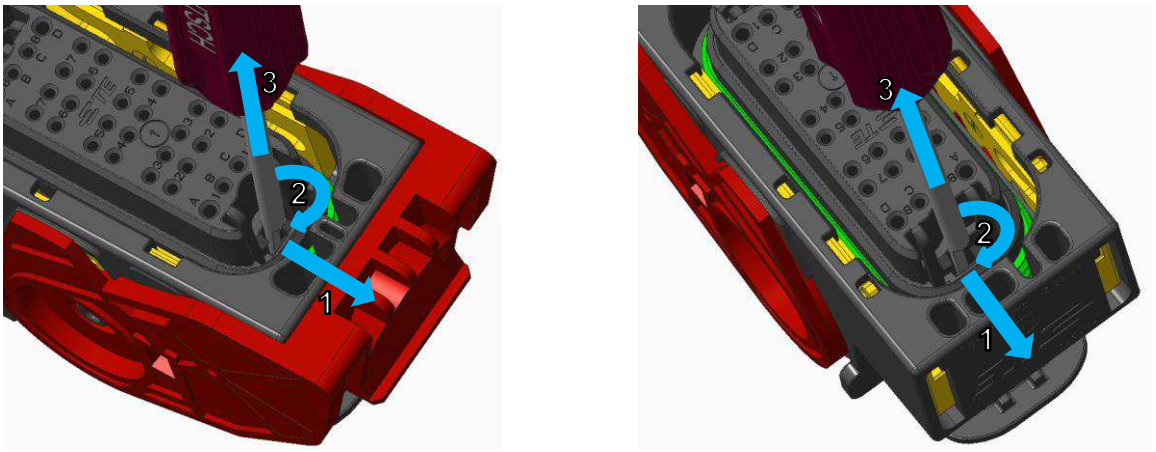

Figure 5

2. Once the locking clips have cleared the snaps on both sides of the connector, remove the TPA.

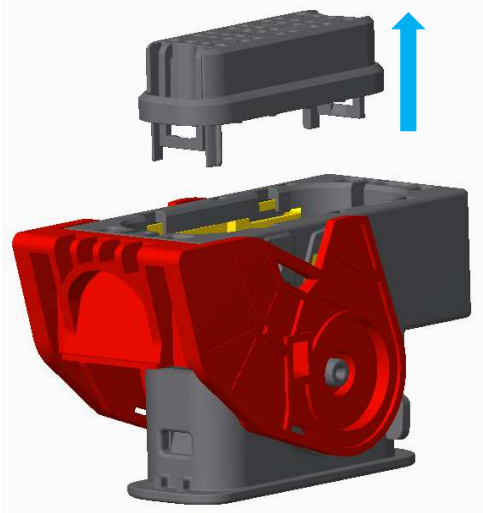

Figure 6

3. Unlock the contacts and push the contacts toward wire side of housing. Once the contacts have been unlocked and pushed into the housing, the wires can easily be pulled out of the grommet.

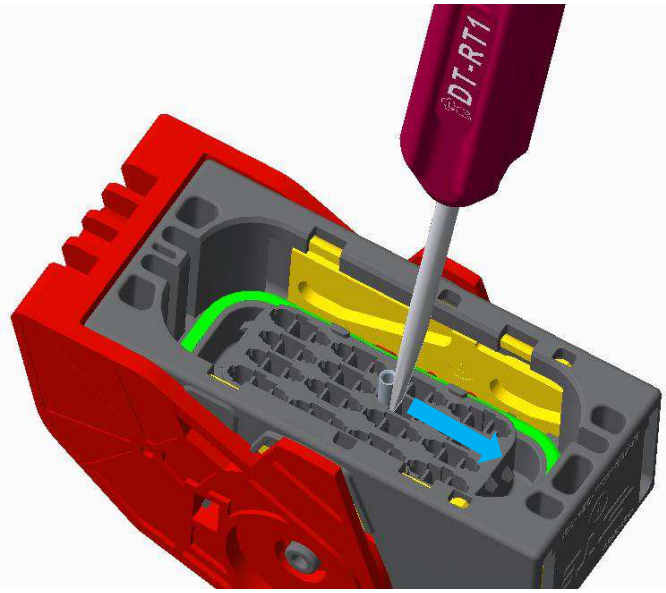

Figure 7

3.6. STRIKE Connector Mating

In order to mate the plug and receptacle, the red lever latch on the plug must first be opened to the position shown in Figure 8. The housings must then be aligned so that the keys on the receptacle align with the keyways on the Plug. At this point, the four square tabs on the side of the receptacle should slide into the four notches on the face of the plug. With the tabs seated in the notches, the red lever latch can be flipped down until there is an audible and tactile click. Mating force should be no greater than 100 N.

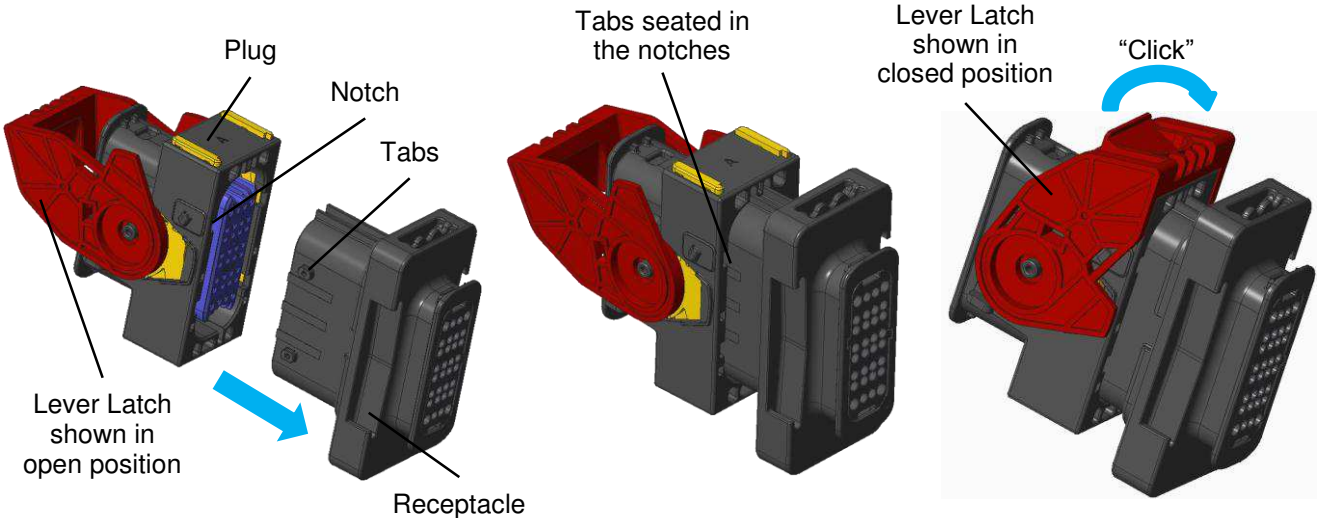

Figure 8

3.7. STRIKE Connector Unmating

To unmate the STRIKE connector, flip the red latch to the open position shown in Figure 9. This will unlock the plug from the receptacle and allow them to be separated. Unmating force should be no greater than 100 N.

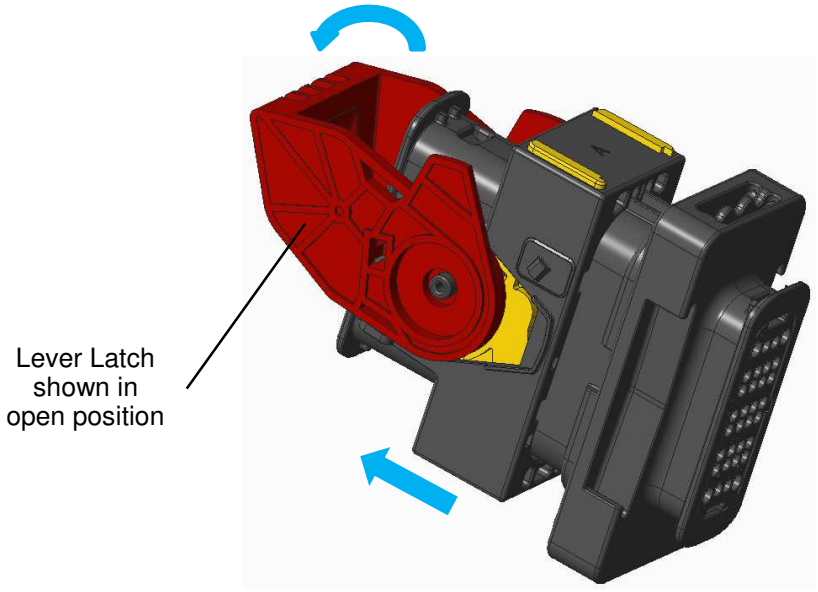

Figure 9

3.8. Backshell Installation and Removal

1. The following backshell part numbers are sold separately as accessories for the STRIKE:

Part Number	Housing Configuration
SRK-BS-MD-90-001	32-Pin
SRK-BS-MD-90-002	
SRK-BS-MD-ST-001	
SRK-BS-MD-ST-002	
SRK-BS-FL-90-001	64-Pin
SRK-BS-FL-90-002	
SRK-BS-FL-ST-001	
SRK-BS-FL-ST-002	

Figure 10

2. To install the backshell, it must first be in the open position as shown in Figure 11. The slots on the backshell will line up and fit onto the flange on the housing. Slide one half of the backshell onto housing as shown. Orientation of the opening is important on the plug housing as shown in Figure 13; backshells may be oriented as desired on receptacles. 64-way plug is shown as an example. Use the same method to install the backshell on all housings.

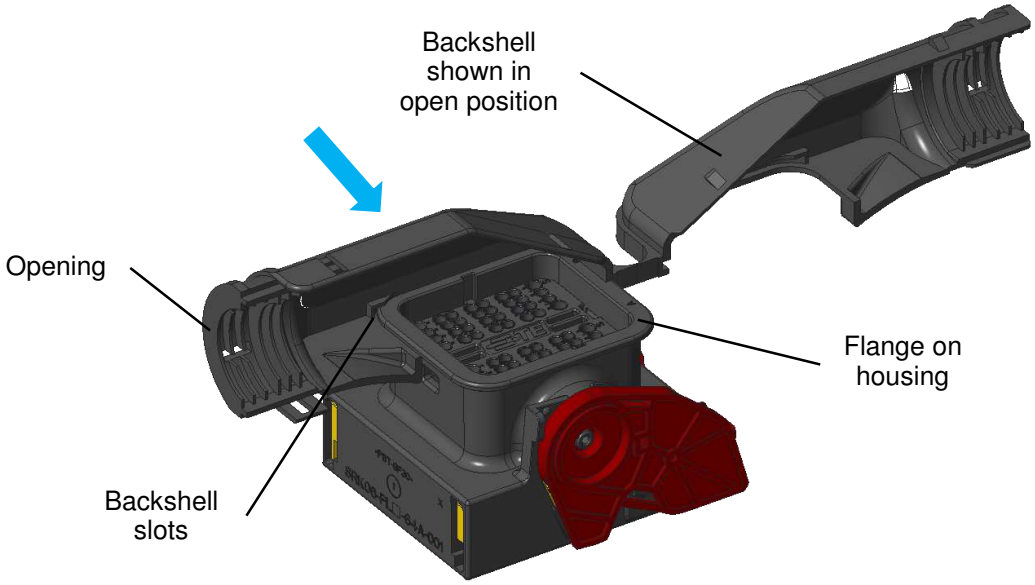

Figure 11

3. To close the backshell, rotate other half and line up the slots in the backshell line up with flange on housing (as described in previous step). Before snapping shut, make sure convoluted tubing (if used) is captured within the inner grooves. If no convoluted tubing is used, make sure any wires are not pinched in the backshell. There are three snaps that need to engage in order to properly snap shut the backshell.

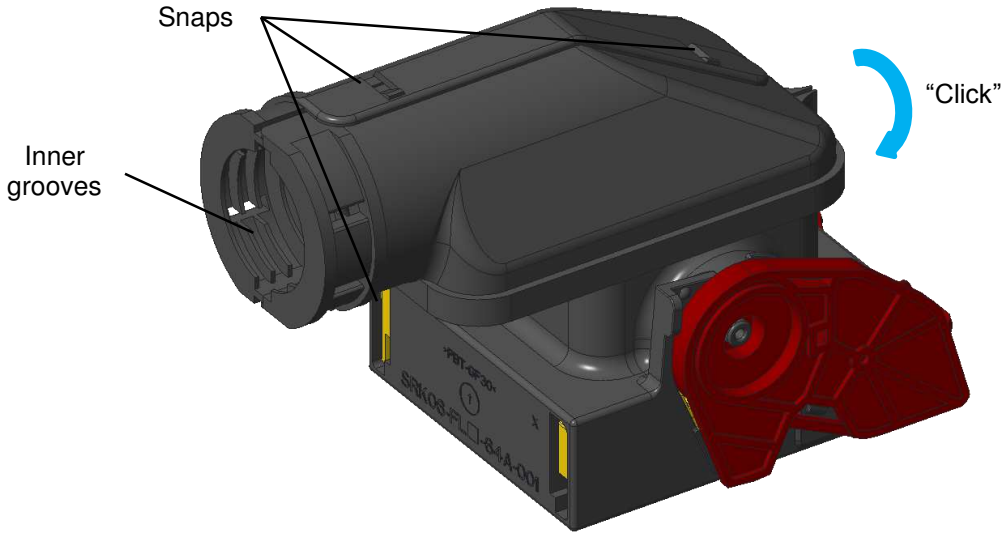

Figure 12

4. As mentioned in Step 2, backshell orientation is important on the plug housings so that the lever latch may be opened.

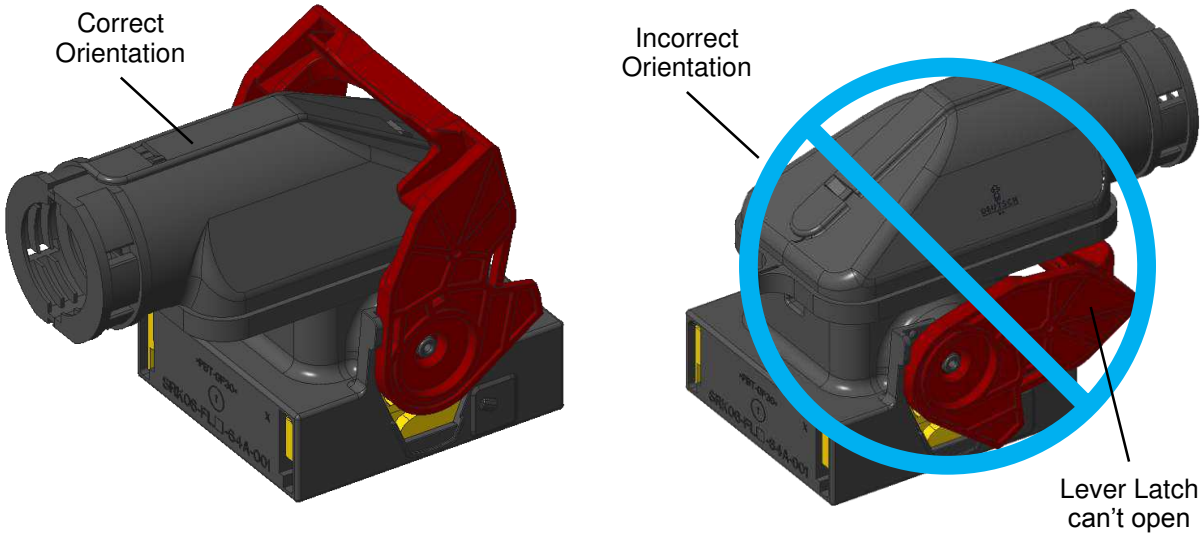

Figure 13

5. To remove the backshell, disengage all three snaps by wedging a DT-RT1 tool or standard flat head screwdriver between the two halves of the backshell and prying it apart as shown in Figure 14.

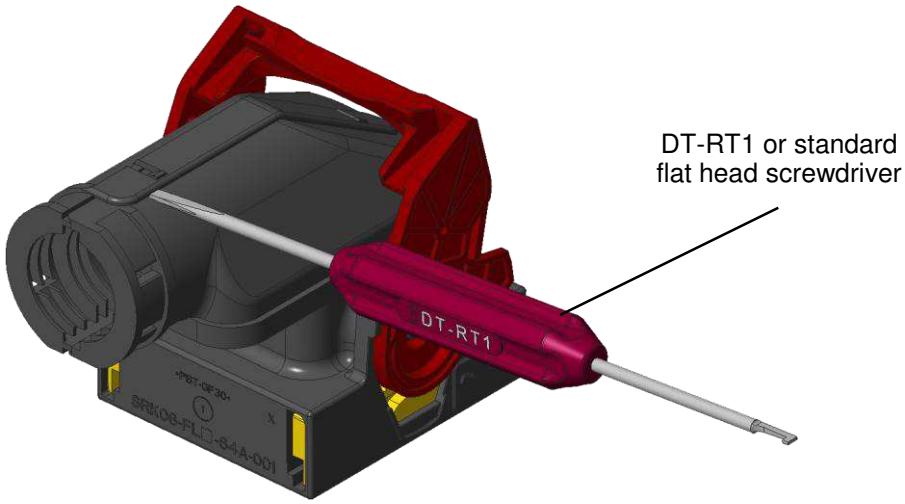

Figure 14

3.9. Panel Installation

1. STRIKE Series receptacles may be mounted to a panel as shown in Figure 15. A clocking feature on the housing may be used to orient the connector on the panel, but the panel cutout must contain the proper tab in order to properly utilize this feature. Refer to STRIKE Customer Drawings (SRK02-MDX-32A-001 and SRK02-FLX-64A-001) for panel cutout information. Ensure that the flange seal is properly seated on housing and insert mating side of receptacle through the panel cutout. 32-pin receptacle is shown as an example. Use the same method to install the 64-pin receptacle.

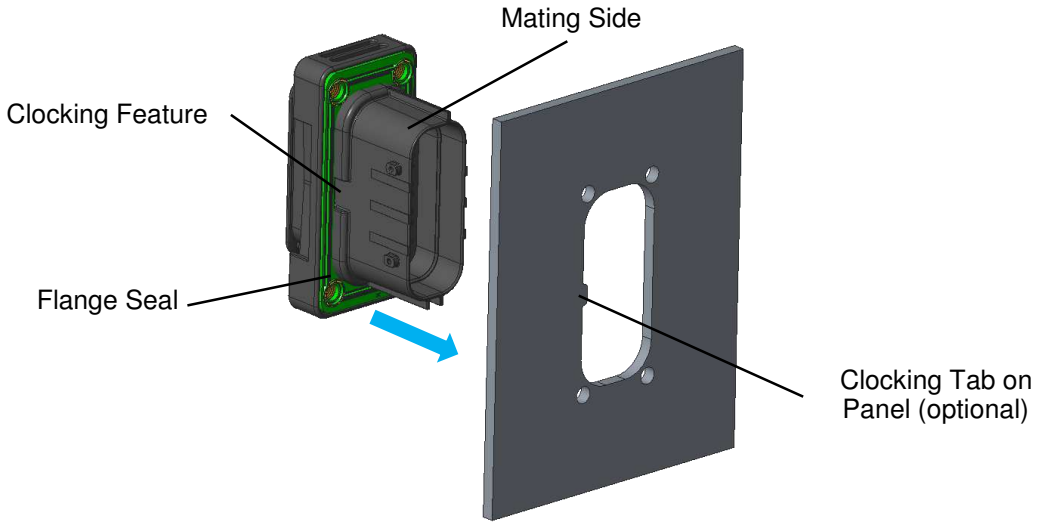

Figure 15

2. Install four M5x0.8 screws to secure receptacle to panel. Recommended torque is 2.26-2.83 N-m [20-25 in-lbf].

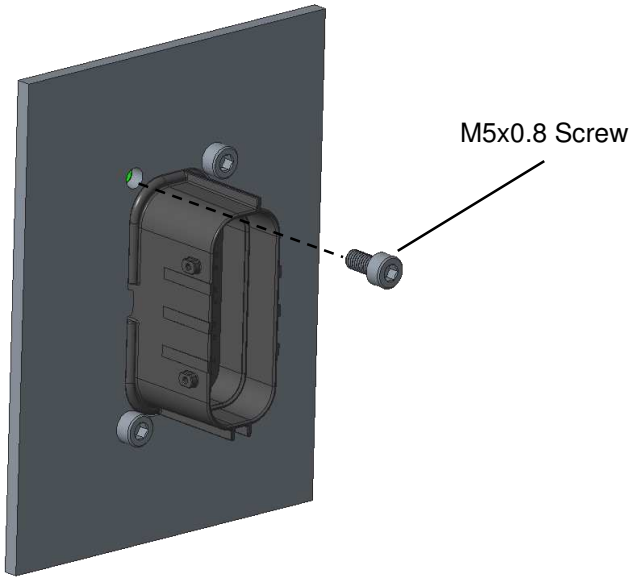

Figure 16

3.10. Replacement and Repair

Damaged or defective connectors must not be used. These connectors cannot be repaired.

4. QUALIFICATION

Agency evaluation for DEUTSCH STRIKE series connectors was not defined at the time of publication of this application specification.

5. TOOLING

Tooling part numbers and instructional material packaged with the tooling are given in Figure 17.

The removal tool is designed to be used to remove plug contact from the connector. This tool can also be used to remove the TPA from the connector.

DEUTSCH Removal Tool DT-RT1 for Front-Release Connectors (408-151008)

DEUTSCH SRK-MT-02 for STRIKE Series Connectors

Figure 17

6. APPENDIX A

Figure 18 shows a section view of the receptacle with the two snaps that lock the TPA circled in red. To alter the position of the TPA, the DT-RT1 removal tool must be used to unhook the locking clip from the snaps on the TPA.

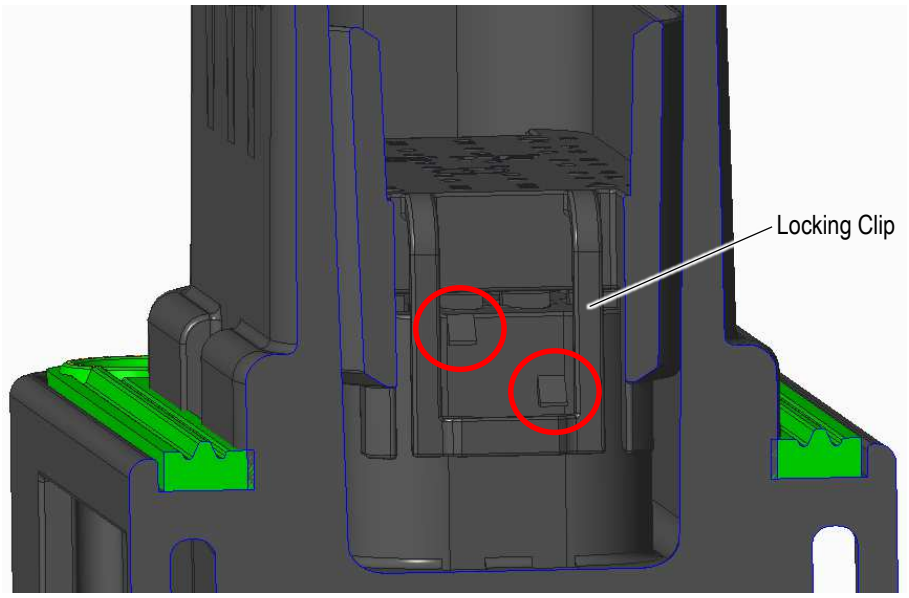

Figure 18

Figures 19 and 20 show how to insert the removal tool to bend the locking clip out slightly so that it clears the snaps. Disengagement should not take a lot of force; less than 10 N of force is required to disengage latch from snaps.

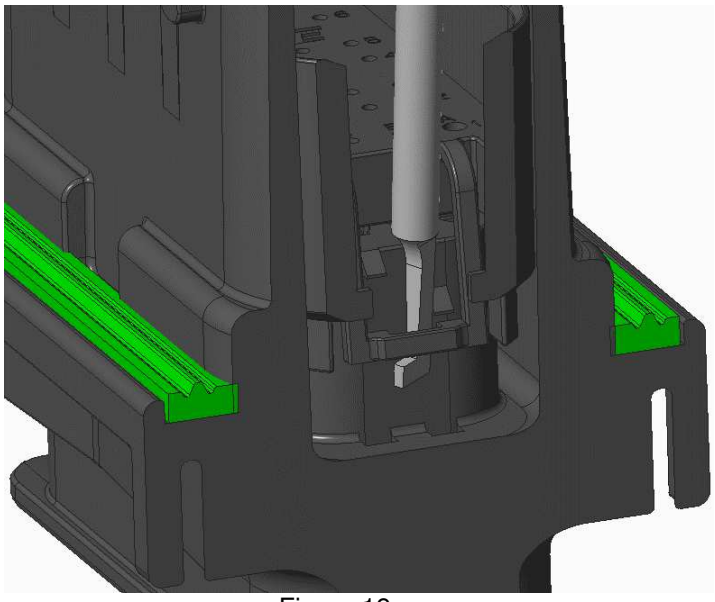

Figure 19

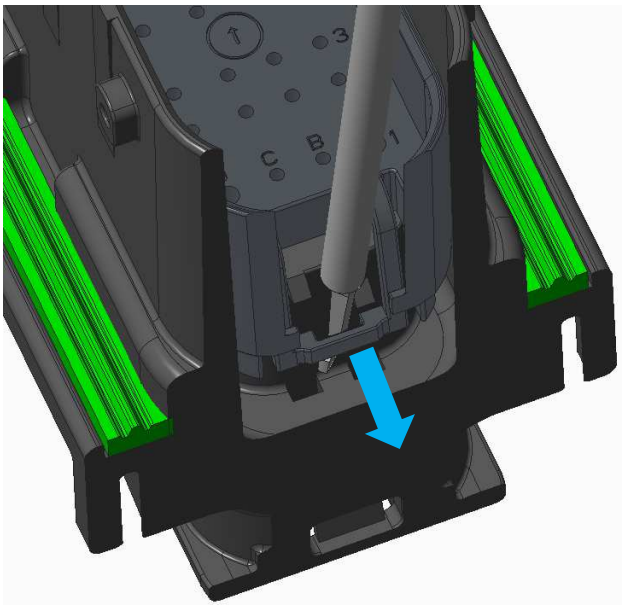

Figure 20

In order to get the TPA in the open position so that the receptacle is ready to accept contacts, the locking clip must clear the lower snap on both sides of the receptacle (see Figure 21). Once one side is disengaged from the clip, hold that side with your fingers while the opposite side is disengaged using the same method.

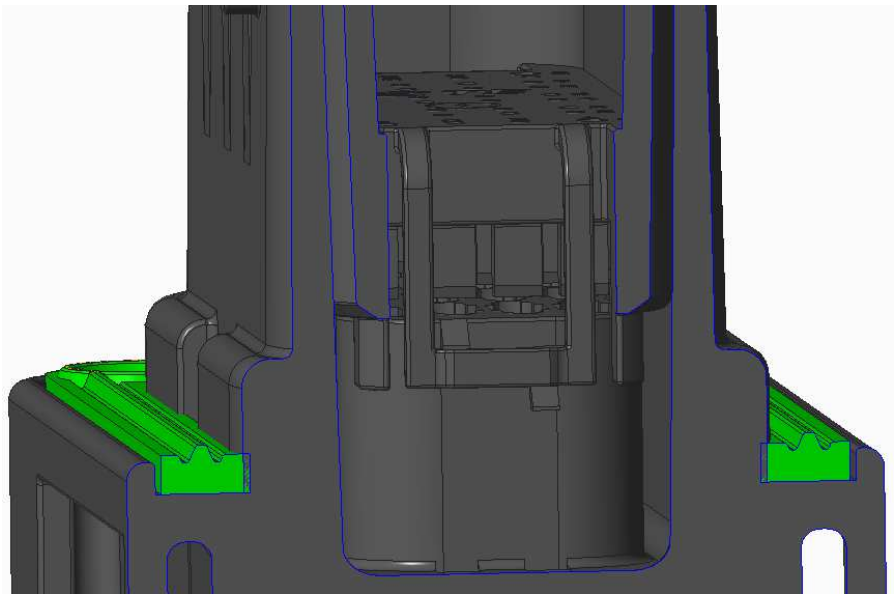

Figure 21

To completely remove the TPA, the locking clip must clear both snaps on both sides of the receptacle (see Figure 22).

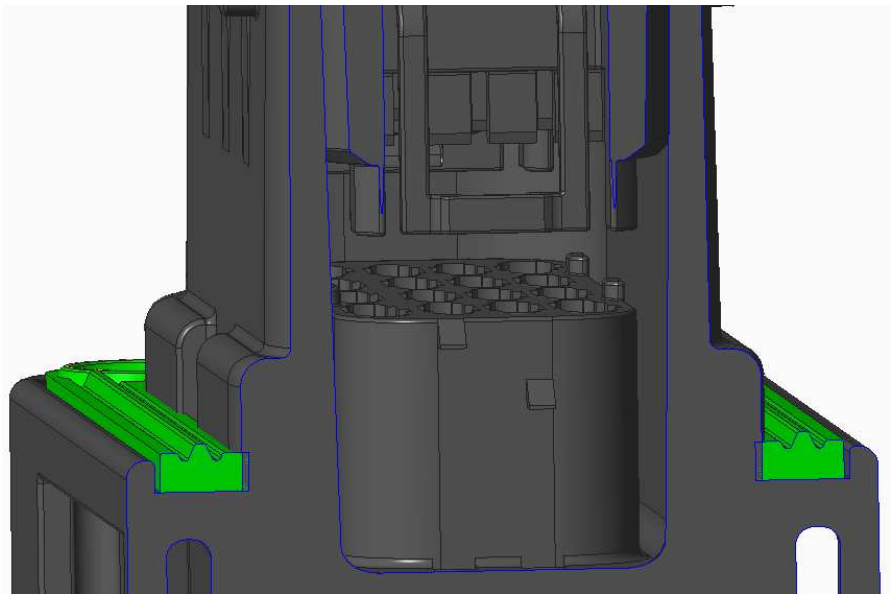

Figure 22