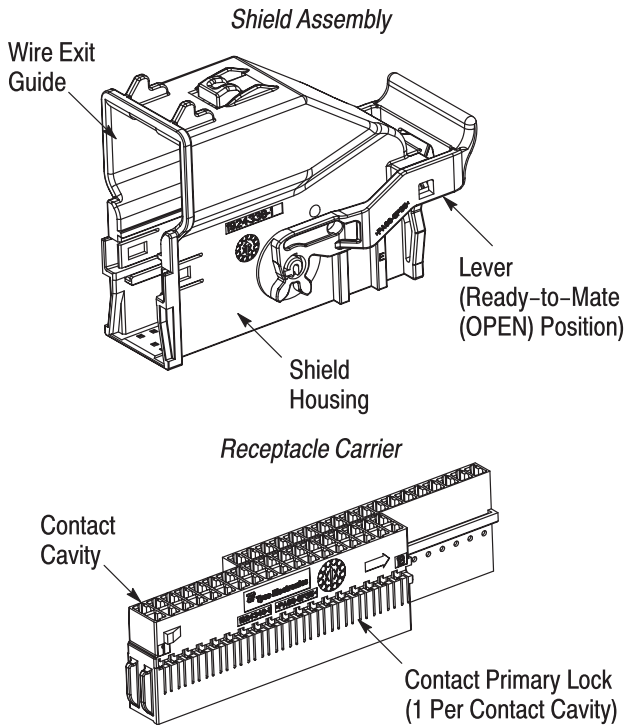


**LAC**

**Note:** 54-Position Shown Requirements Apply to All Positions



**Hand Mate Connector**

**Note:** 26-Position Shown Requirements Apply to All Positions

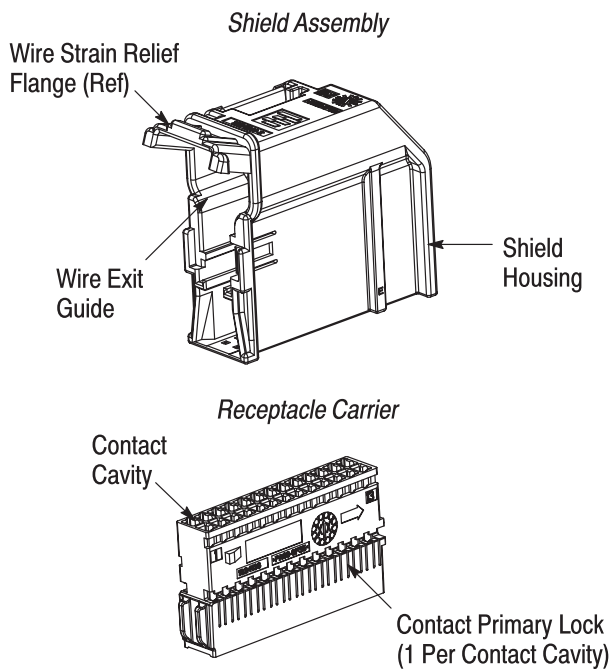


Figure 1

**1. INTRODUCTION**

This instruction sheet provides assembly and disassembly and connector-to-interface mating and unmating procedures for 0.64mm Generation Y LACs (reference base part number 1924337) and Hand Mate Connectors (1924141).

Only Tyco Electronics Corporation 0.64mm receptacle contacts (in accordance with the customer drawings and Application Specification 114-13183) can be used with these connectors.



*Dimensions in this instruction sheet are in metric units [with U.S. customary units in brackets]. Figures are not drawn to scale.*

Reasons for reissue of this instruction sheet are provided in Section 6, REVISION SUMMARY.

**2. DESCRIPTION**

Each connector consists of a shield assembly and one or more receptacle carriers. See Figure 1. The connector is keyed with a color coding to match the correct interface and ensure proper connector orientation.

The shield assembly consists of a shield housing and wire exit guide. The wire exit guide is used to direct exiting wires and is available with or without a flange to attach a wire strain relief (such as a cable tie). The shield assembly of LACs features a lever. The lever is latched in the ready-to-mate (OPEN) position when shipped. The lever is released (pre-lock position) when the connector is mated to the interface.

The receptacle carrier is designed to be installed into the shield assembly after it is loaded with contacts. The receptacle carrier has plastic contact primary locks that temporarily retain the contacts in position prior to being installed into the shield assembly. If a contact is not fully seated or misoriented in the contact cavity, the receptacle carrier is prevented from being installed into the shield assembly.

**3. ASSEMBLY PROCEDURE**

**3.1. Insert Contacts into Receptacle Carrier**

These instructions assume that the contacts have been properly terminated. Proceed as follows:

1. Grasp the wire of the contact approximately 15 mm [.6 in.] behind the insulation barrel, and orientate the contact so that the flag faces the top of the receptacle carrier. The seam of the wire barrel should also face the top of the receptacle carrier. See Figure 2.

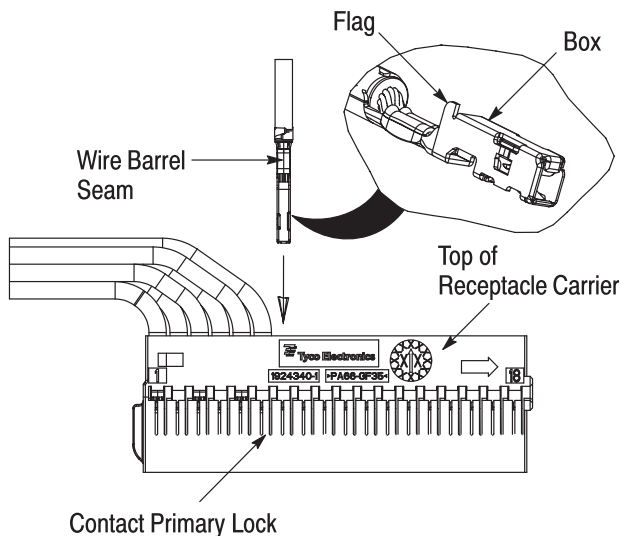


Figure 2

**NOTE**

The flag of the contact and the internal geometry of the contact cavity assist in proper orientation of the contact.

2. Push the contact straight into the contact cavity until the contact primary lock of the receptacle carrier snaps securely behind the box of the contact. Refer to Figure 2. The contact primary lock should return to its original non-deflected position.

3. Pull back lightly on the wire to ensure that the contact is properly seated.

4. Repeat Steps 1 through 3 for the remaining contacts.

### 3.2. Install Receptacle Carrier into Shield Assembly

**NOTE**

All contacts must be properly seated before the receptacle carrier can be installed. If a contact is not properly seated, interference with the secondary locking ribs (of the receptacle carrier) will occur and prevent the receptacle carrier from being installed.

When the receptacle carrier is properly installed, the secondary locking ribs engage each contact (between the box and wire barrel) to provide positive contact retention.

1. For connectors with multiple receptacle carriers, slide the receptacle carriers together. Refer to Figure 1.

**NOTE**

The receptacle carriers must be assembled **BEFORE** installing them (as a unit) into the shield assembly.

2. Form all wires in the opposite direction that the receptacle carrier will be inserted. Observe the arrows (located on both sides of the receptacle carrier) which indicate the direction of insertion. See Figure 3.

3. Position the receptacle carrier so that the arrows are pointing to the opening of the shield assembly. Align the side channels of the receptacle carrier with the secondary locking ribs of the shield assembly. See Figure 3.

4. Make sure that the wires are not constrained or under tension, then slide the receptacle carrier into the shield assembly (the secondary locking ribs will act as a guide rail). When using large wire bundles, it may be necessary to adjust the wire arrangement during installation.

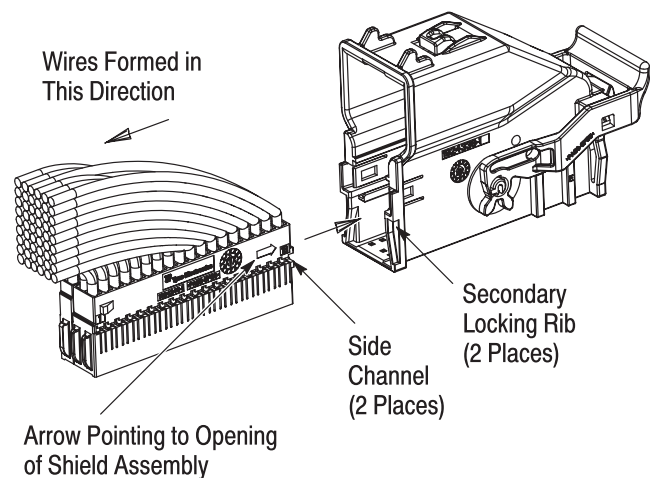


Figure 3

5. Continue pushing the receptacle carrier until the side locking latch (of the shield assembly) drops over the locking ramp of the receptacle carrier. The side locking latch should return to its non-deflected position and the locking ramp should be visible in the window of the side locking latch. See Figure 4.

**NOTE**

If excessive force is encountered before the receptacle carrier is fully installed, remove the receptacle carrier (according to Paragraph 4.2) and inspect the contacts to make sure that they are properly positioned.

6. Pull back lightly on the wire bundle to ensure that the receptacle carrier is properly seated. The receptacle carrier should remain in the locked position.

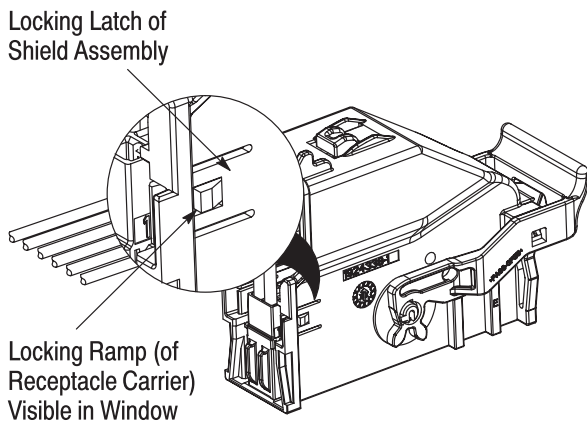


Figure 4

### 3.3. Secure Wires to the Shield Assembly

After the receptacle carrier is installed into the shield assembly, the wire bundle can be secured. Unrestrained wires should be secured to the shield assembly before applying insulating tape, cable coverings, securing tape, or similar fasteners.

Secure the wire bundle to the wire strain relief flange of the shield assembly using a 3-mm [.12-in.] width (or less) cable tie. Position the cable tie so that the locking tab is located below or to the side of the wire exit guide. This will prevent the cable tie from interfering with the lever when in the mated position. See Figure 5.

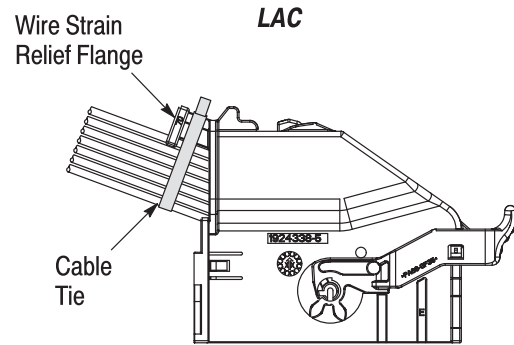
### 3.4. Mate Connector to Interface

The interface must be mounted onto the pc board before mating the connector.

#### A. LAC

1. Ensure that the lever is in the ready-to-mate (OPEN) position. If not, move the lever to the OPEN position before inserting the connector into the interface. The lever will be held in place by hold-down latches. Orient the connector so that the keying and polarization features are aligned with the keying and polarization features of the interface. See Figure 6, Detail A.
2. Push the connector into the interface until the lever rotates to the pre-lock position. There should be an audible “click.” The lever detents should be released. See Figure 6, Detail B.
3. Rotate the lever until it locks behind the lever lock (located on top of the shield assembly). There should be an audible “click.” The lever is now in the fully engaged (CLOSED) position. The lever detents should be locked. See Figure 6, Detail C.
4. Lightly pull back on the lever to ensure that it is properly closed.

### Securing Wires to Shield Assembly



### Hand Mate Connector

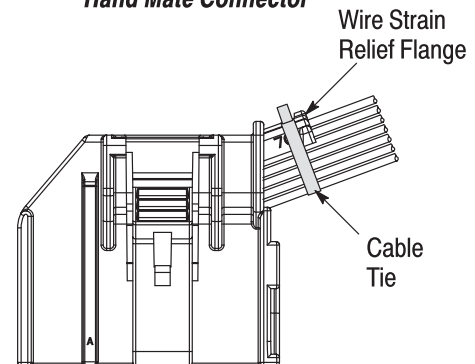


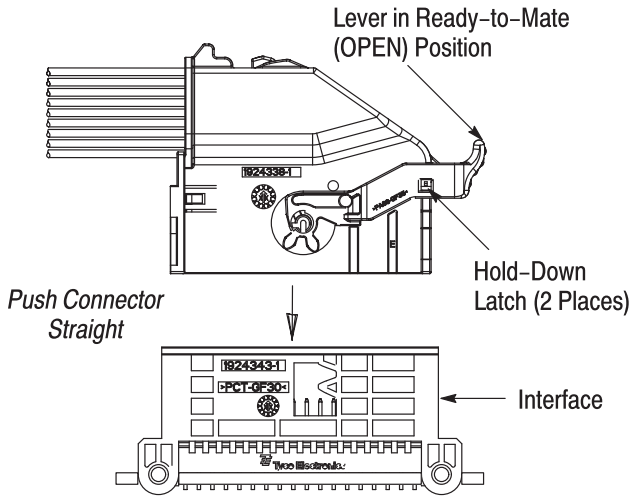
Figure 5

### B. Hand Mate Connector

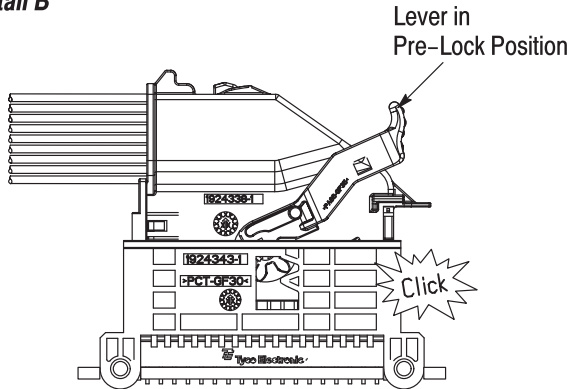
1. Orient the connector so that the keying and polarization features are aligned with the keying and polarization features of the interface. See Figure 7, Detail A.
2. Push the connector straight into the interface until the mating latch of the connector drops into the mating slot of the interface. The mating latch should return to its non-deflected position and should be visible in mating slot. There should be an audible “click.” See Figure 7, Detail B.
3. Lightly pull back on the connector (DO NOT pull the wires) to ensure that it is properly seated.

**Mating LAC to Interface**

**Detail A**



**Detail B**



**Detail C**

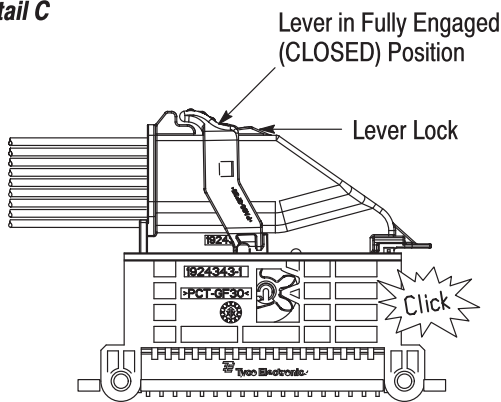
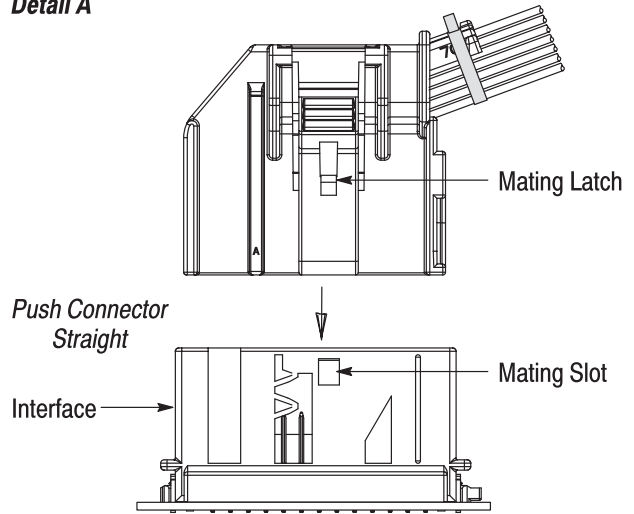


Figure 6

**Mating Hand Mate Connector to Interface**

**Detail A**



**Detail B**

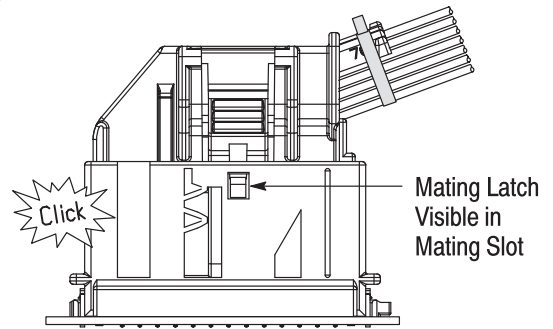


Figure 7

**4. DISASSEMBLY PROCEDURE**

**4.1. Unmate Connector**

**A. LAC**

1. Press the lever lock (located on top of the shield assembly). A small screwdriver can be used to press the lever lock. The lock is now released. Refer to Figure 8, Detail A.
2. Rotate the lever until it rests on the support platform. There should be an audible “click.” The lever is now in the OPEN position. See Figure 8, Detail B.
3. Pull the connector straight upward and out of the interface. See Figure 8, Detail C.

**Unmating LAC from Interface**

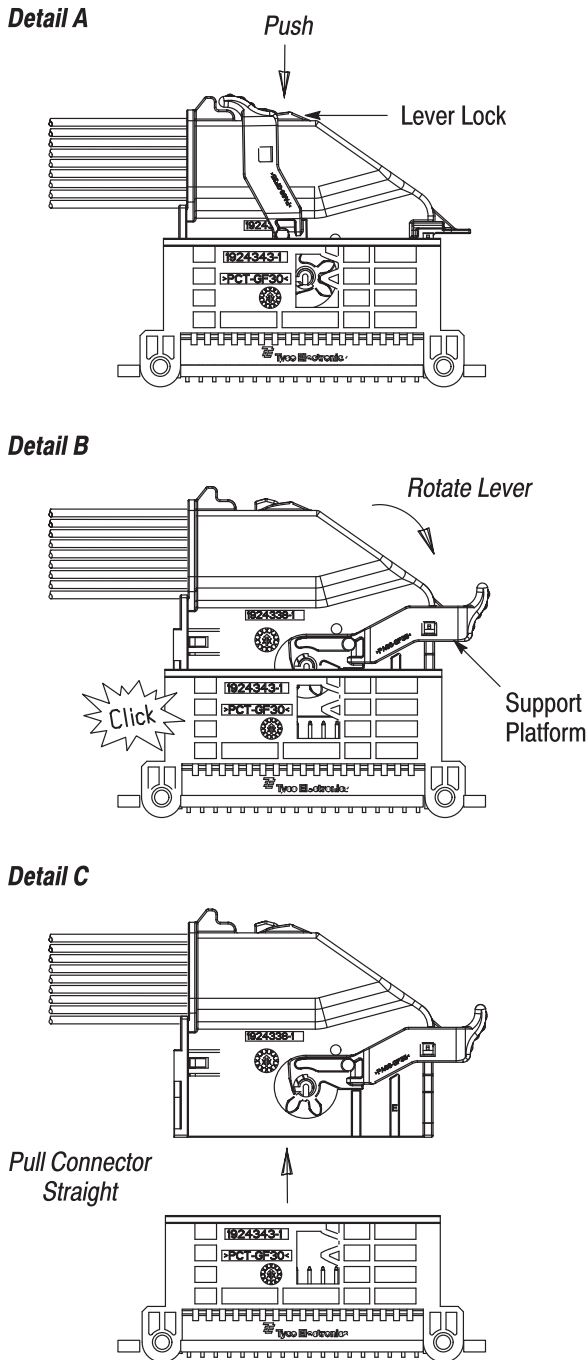


Figure 8

**B. Hand Mate Connector** (See Figure 9)

1. Depress the mating latch (visible in the mating slot of the interface). See Figure 9, Detail A.
2. Holding the mating latch in place, pull the connector straight out of the interface. See Figure 9, Detail B.

**Unmating Hand Mate Connector from Interface**

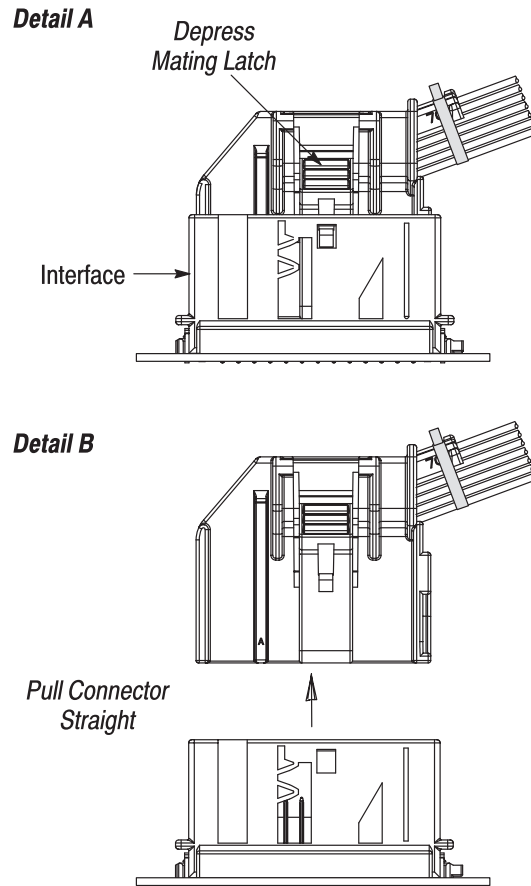


Figure 9

**4.2. Remove Receptacle Carrier from Shield Assembly**

The shield assembly must be unmated from the interface before removing the receptacle carrier.

1. If applicable, remove the cable tie from the connector. Check to make sure that the wires are not damaged.
2. Fully deflect the side locking latch to release the locking ramp from the lock window. See Figure 10.

**NOTE**



For 54-position LACs, the 36-position receptacle carrier must be removed from the shield assembly before the 18-position – or – to remove BOTH receptacle carriers from the shield assembly at the same time, the side locking latch must be released from BOTH receptacle carriers.

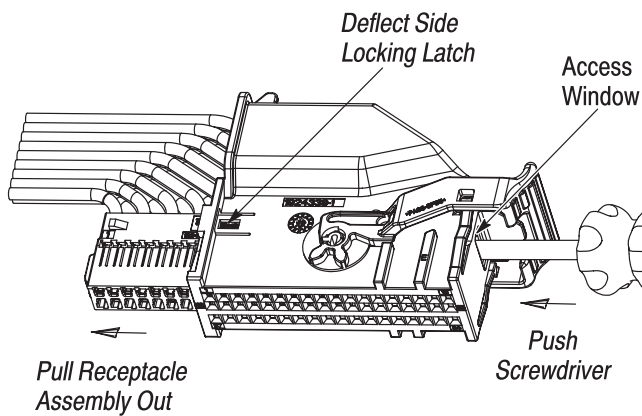


Figure 10

3. While holding the side locking latch in the deflected position, insert a small screwdriver into the access window (located at the opposite end of the shield assembly), then push it into the shield assembly until the receptacle carrier starts to exit the opening. Pull the receptacle assembly out of the shield assembly. See Figure 10.

#### 4.3. Remove Contact from Receptacle Carrier

1. Using a small screwdriver having a blade between 1.00 and 1.75 mm wide, deflect the contact primary lock (of the receptacle carrier) of the contact to be removed until it touches the anti-overstress stop. DO NOT deflect the lock beyond this point. See Figure 11.
2. While holding the contact primary lock in the deflected position, pull the wire of the contact until the contact is removed from the receptacle carrier.

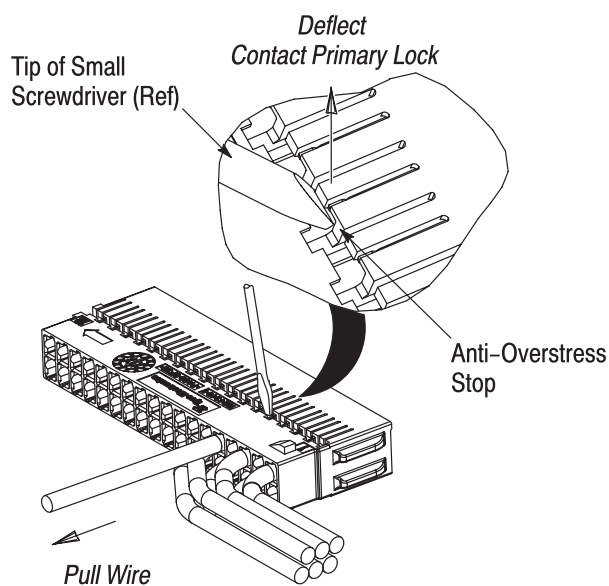


Figure 11

## 5. REPLACEMENT AND REPAIR

The shield assemblies and receptacle carriers are not repairable. Discard and replace any defective or damaged components. DO NOT re-use a terminated contact by removing the wire.

## 6. REVISION SUMMARY

Revisions to this instruction sheet include:

- Changed Gen Y to Generation Y