YAZAKI 1.5mm Sealed Service Disconnect Connector User's Manual

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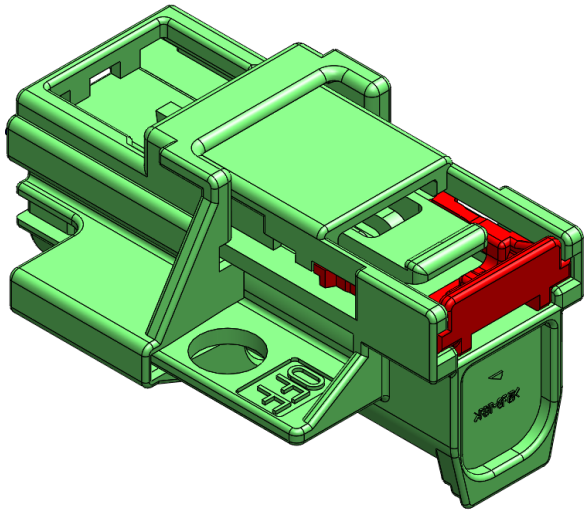
1. Product Specification (Reference)



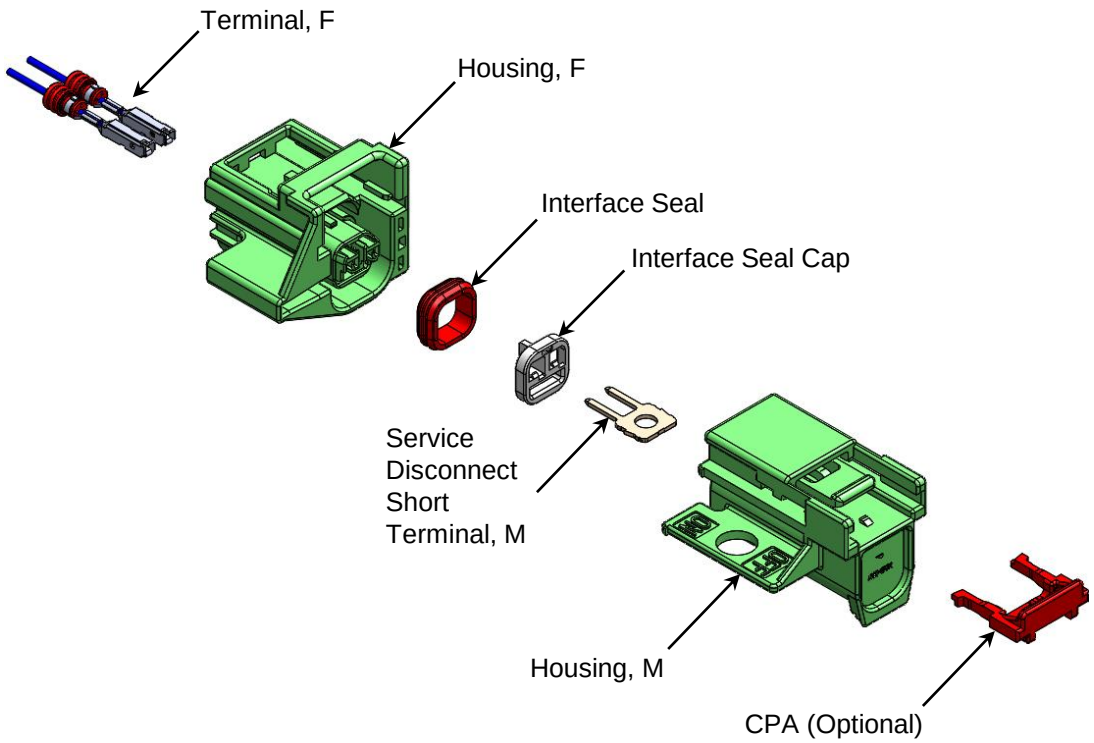
Material	Connector	PBT - GF15
	Male Short Terminal	Copper Alloy (Sn Plate)
	Female Terminal	Copper Alloy (Sn Plate)
Operating Temperature Range (Sealed)		-40°C ~ 125°C
Current Capacity		See Current Rating Curve (Section 1.1)
Applicable Wire Size (Conductor)		0.35mm² - 1.50mm²
USCAR-2 Vibration Class		V2
USCAR-2 Sealing Class		S3
USCAR-2 Ergo Class		MF2

1.1 Current Rating Curve (Reference Only)

Reference YPES-15-1227E.

2. Associated Components

2 .1. Female/Male Connector



2. Associated Components (Continued)

2.2. Applicable Retainer Clip.

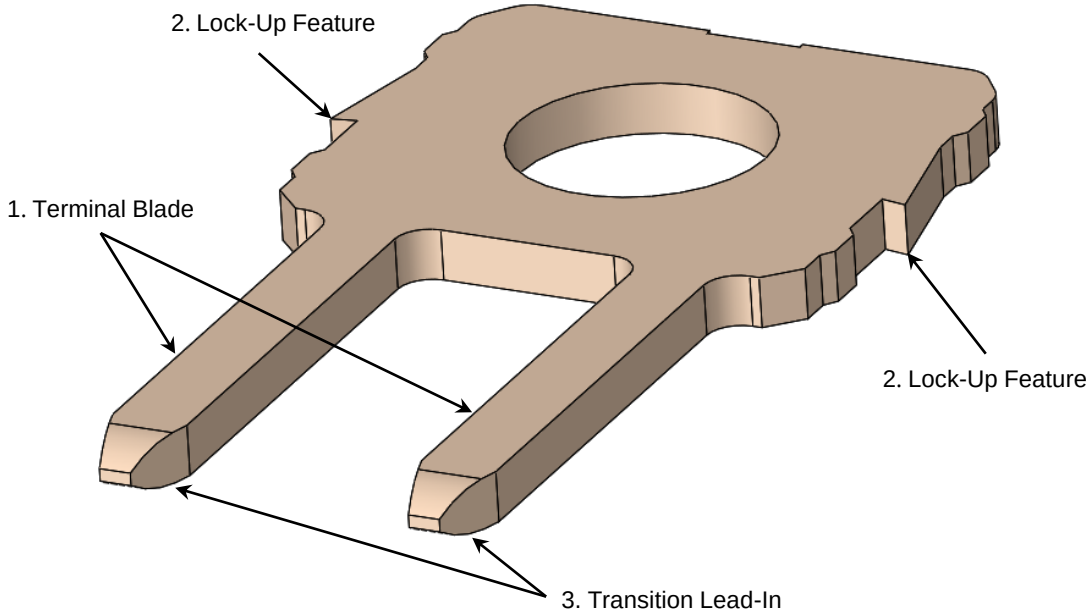
See EWCAP-005-11 Rev. C for clip slot details.

3. Components Shape and Function

3.1. Female Terminal

Reference YPES-15-1227E.

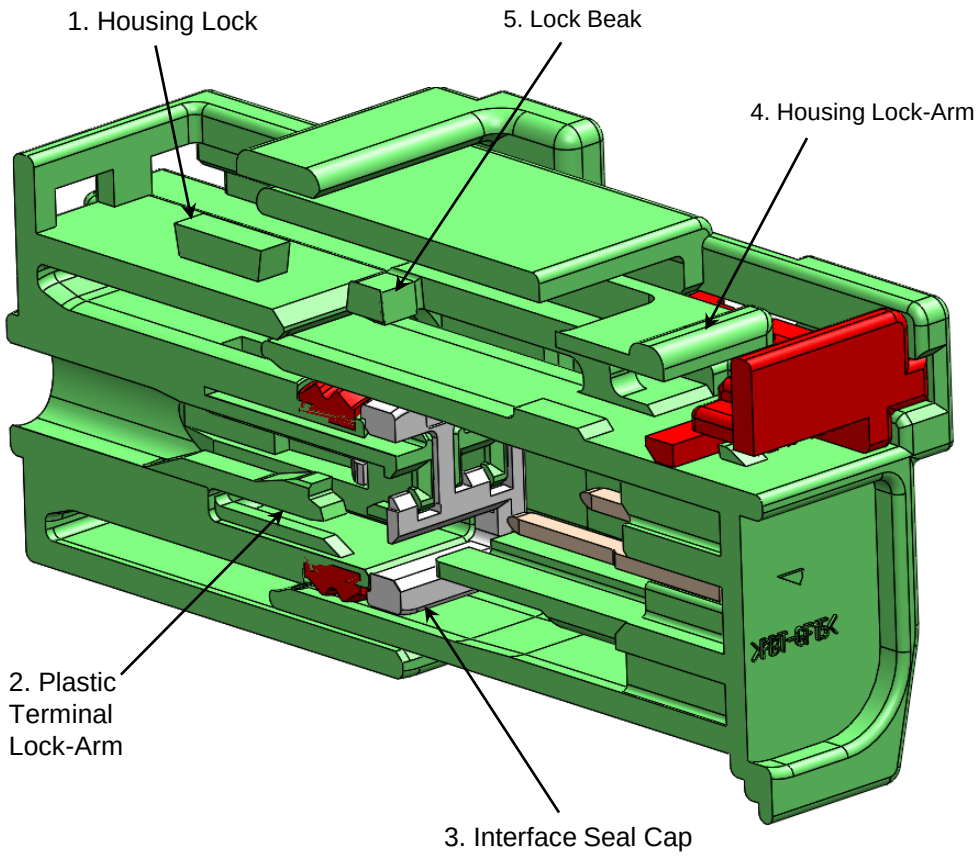
3.2 Male Short terminal



#	Feature Name	Function
1	Terminal Blade	Provides contact surface with female terminal.
2	Lock-Up Feature	Provide surface for lock-up with male connector housing.
3	Transition Lead-In	Tip of terminal blade to ease terminal insertion.

3. Components Shape and Function (Continued)

3.3. Connector Assembly



#	Feature Name	Function
1	Housing Lock	Rigid member which provides mechanical retention of mated part.
2	Plastic Terminal Lock-Arm	Flexing member which provides means for assembly of the terminal.
3	Inteface Seal Cap	Provides a method to keep the seal in the right position.
4	Housing Lock-Arm	Flexing member which provides means for assembly/servicing of the connection.
5	Lock Beak	Provides mechanical retention of mated part.

4. Handling of Components

Reference YPES-15-1227E.

5. Terminal Crimping Specification

Reference YPES-15-1227E.

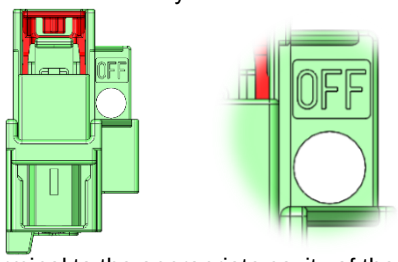
6. Handling of Terminated Wire Leads

Reference YPES-15-1227E.

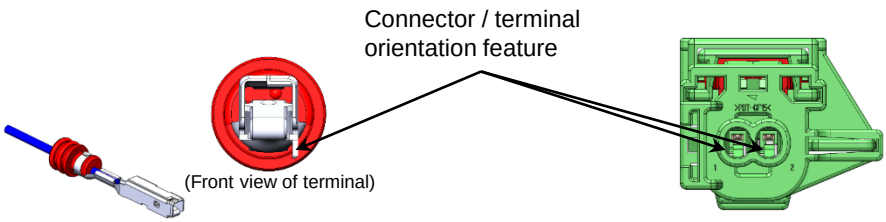
7. Connector Assembly

7.1. Female Terminal Installation to Connector

1) Confirm that the connector system is in the “OFF” position (shown below).



2) Insert the terminal to the appropriate cavity of the connector housing. If resistance / binding is felt during the insertion process, confirm correct terminal-to-cavity orientation. (See below)

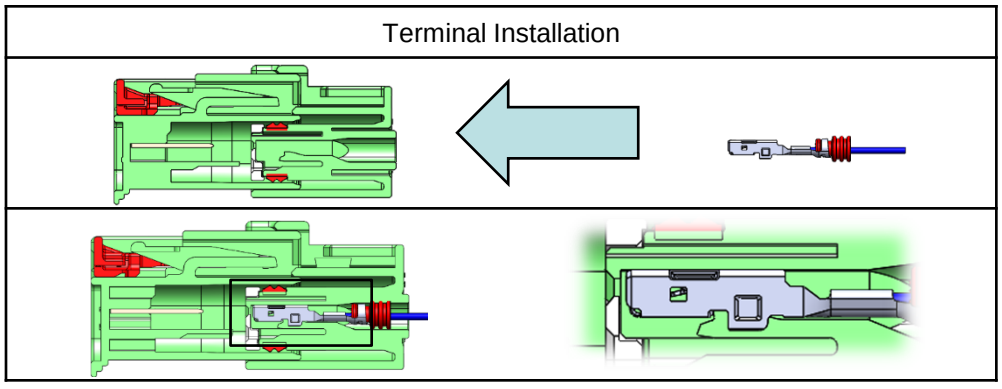


3) Care should be taken to assure the terminal is installed axially to the connector cavity. Angled/skewed insertion could potentially result in terminal damage.

4) Upon complete insertion of the terminal to the cavity (audible / tactile confirmation should occur), lightly pull on the wire lead to assure full lock-up has occurred.
   a. If automated terminal-to-cavity installation equipment is use pull-out verification should not exceed 15N.
   b. To assure the operator is able to sense the tactile feedback, wearing of gloves during the terminal insertion process should be discouraged.

   Product which may have been miss-inserted or potentially damaged during the assembly process should be discarded.

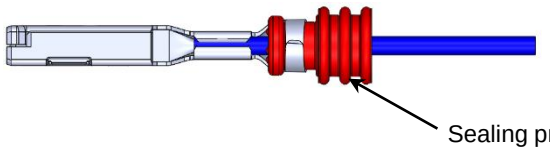
5) After lightly pull confirmation has occurred, the pair is then closed into the “ON” position (see section 10.2) for partially seated terminal detection / PLR function.

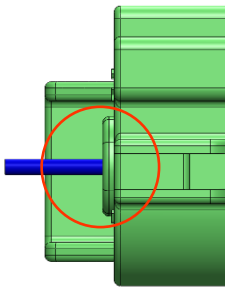


7. Connector Assembly (Continued)

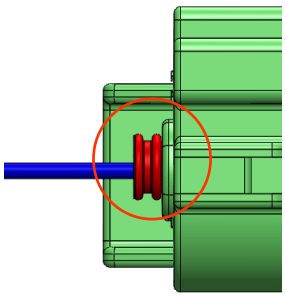
7.1. Female Terminal Installation to Connector (Continued)

6) After completing steps 1), 2), 3), 4) and 5), confirm that the cable seal has been fully seated in the cavity. If the cable seal can be seen after installation, remove the terminal and restart at step 1).

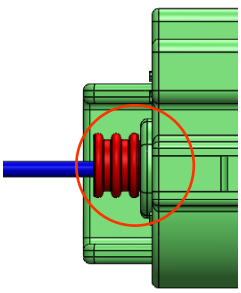




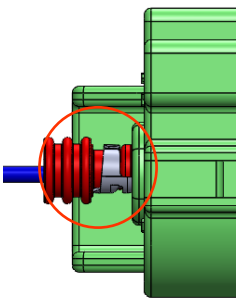
✓ Acceptable



✗ Unacceptable



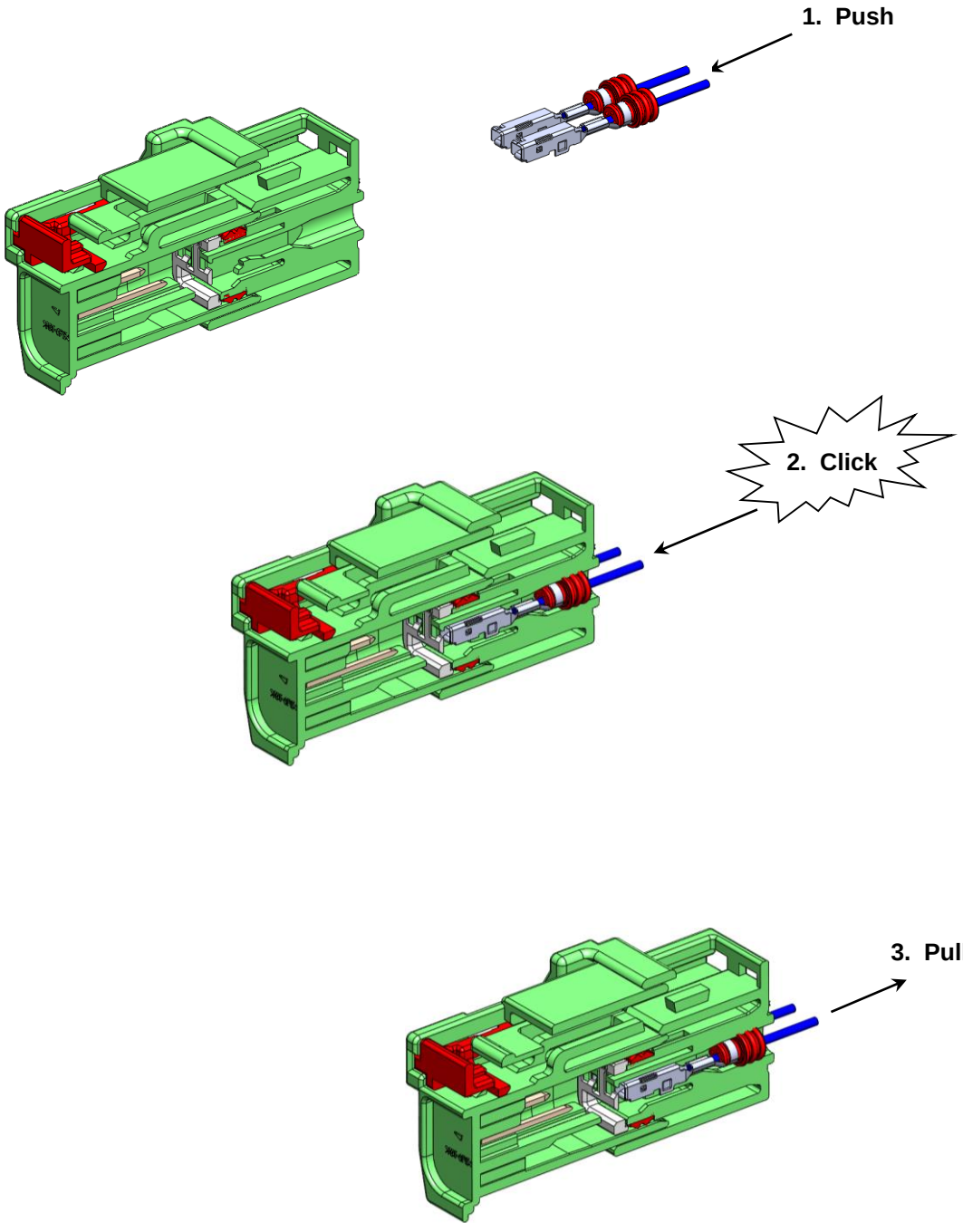
✗ Unacceptable



✗ Unacceptable

7. Connector Assembly (Continued)

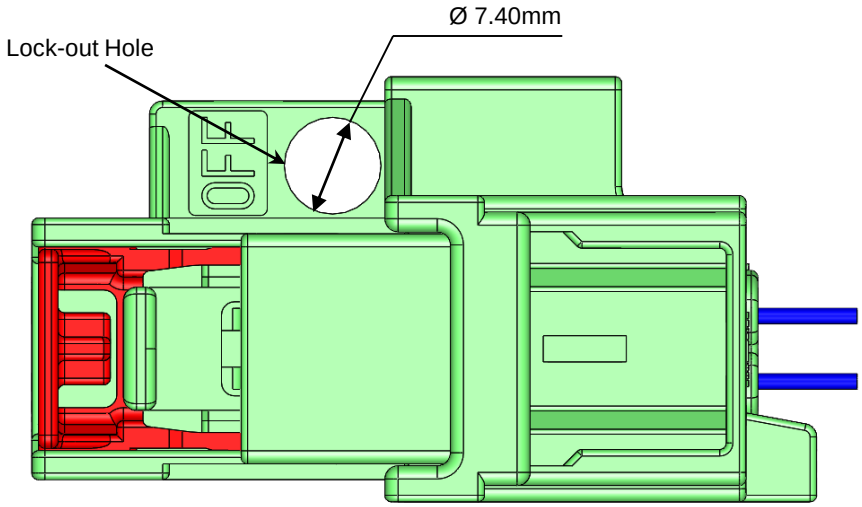
7.1. Female Terminal Installation to Connector (Continued)



8. Connector Servicing

8.1. Servicing Tools

Any object strong enough with diameter 0.5mm ≤ x ≤ 7.3mm can be used to lock out the connector.



Caution:

The object has to be strong enough to avoid an inadvertent change of position of the connector from OFF to ON.

8.2. Servicing Procedure

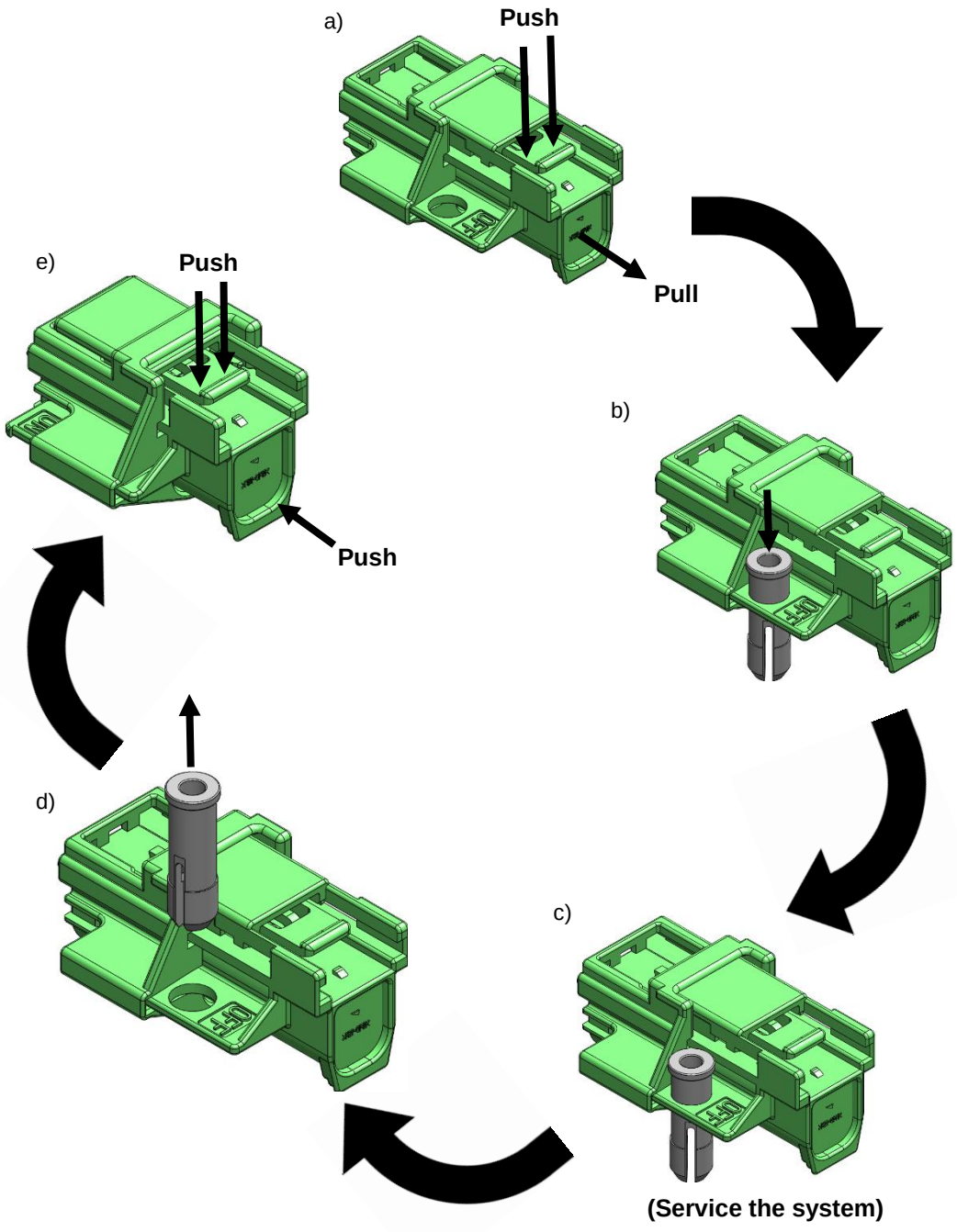
a) Depress the latch and pull out to reach the “Service” position.
b) Insert a pin or another appropriate object in the lock out hole.
c) Service the connector.
d) Remove the lock out pin.
e) Deflect the latch again, push the mated connectors together until mated.

Caution:

If any damage is visible on the terminal and/or connector, the affected components should be replaced; repairs should not be attempted.

See illustration on the following page

8.2. Servicing Procedure (Continued)



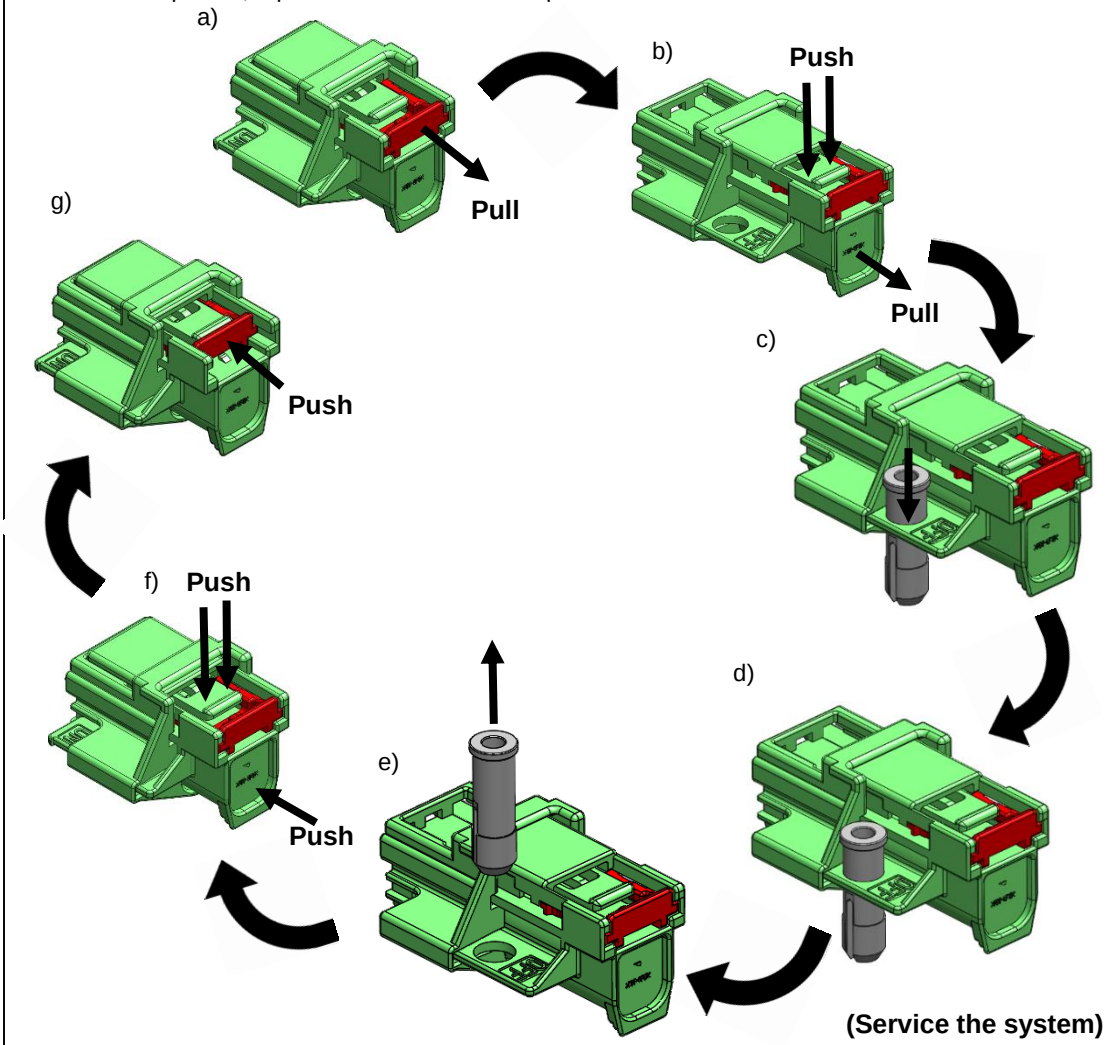
Note: The pin shown is for illustration purposes only and does not exist. For details, please see section 8.1

8.3. Servicing Procedure with CPA (Optional)

a) Put the CPA in Pre-Set position.
b) Depress the latch and pull out to reach the “Service” position.
c) Insert a pin or another appropriate object in the lock out hole.
d) Service the connector.
e) Remove the lock out pin.
f) Deflect the latch again, push male connector and mate connectors together.
g) Put the CPA in Full-Set position.

Caution:

If any damage is visible on the terminal and/or connector, the affected components should be replaced; repairs should not be attempted.



Note: The pin shown is for illustration purposes only and does not exist. For details, please see section 8.1

9. Wire Harness Packaging / Shipping

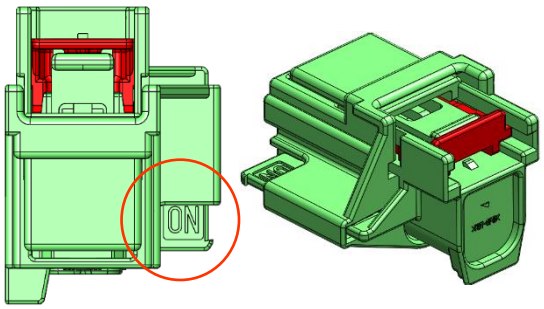
Reference YPES-15-1227E.

10. Connector Mating / Removal

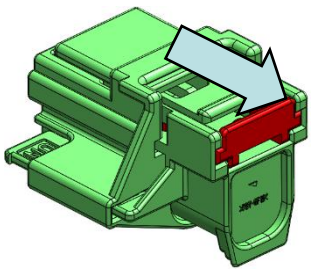
10.1. Moving from ON to OFF Position

To stop electrical flow through the system, please follow the procedure below to move the system from the ON position to the OFF position.

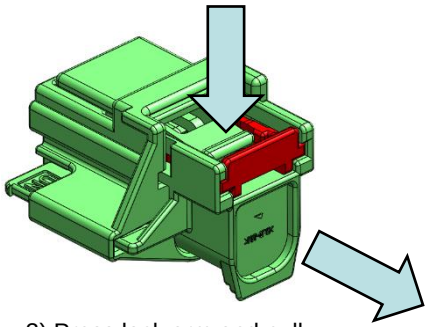
1) Standard disconnection
   a. Connector disengagement can be facilitated by depressing the housing lock arm, and pulling apart the male and female connectors. Connectors are not intended to be separated completely. Connectors just change position from ON to OFF.
2) Connector with Connection Position Assurance Device (CPA)
   a. If the connection is equipped with a CPA device, de-activation must occur prior to system disconnection (See Section 11 for illustration).
3) General
   a. During the disconnection process, the wires of the connection system should not be held or pulled. Application of force to the wires of the connection could result in damage to the individual components of the connection system.



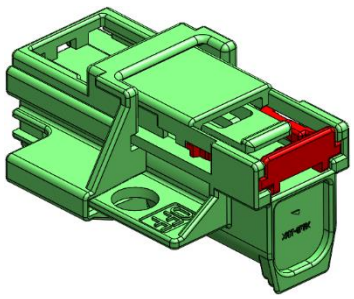
1) ON Position



2) Disengage CPA (Optional)



3) Press lock arm and pull



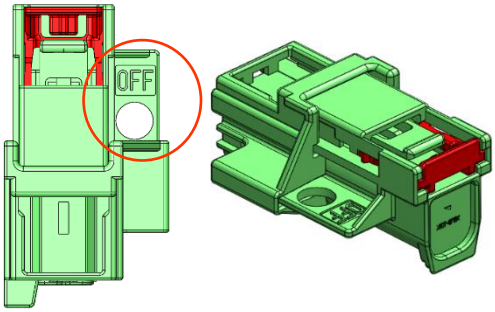
4) OFF Position

10. Connector Mating / Removal (Continued)

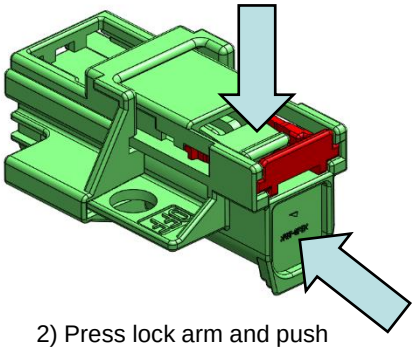
10.2. Moving from OFF to ON Position

To have electrical continuity in the system, the connector should be in ON position.

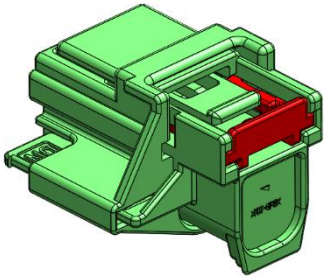
1) Standard connection
   a. Connector engagement can be facilitated by depressing the housing lock arm, and putting together the male and female connectors.
   b. If it is difficult to move the system from the OFF position, the female terminal may be installed incorrectly. Confirm complete insertion per section 7.1.
2) Connector with Connection Position Assurance Device (CPA)
   a. If the connection is equipped with a CPA device, activation must occur at the end of the system connection (See Section 11 for illustration).
3) General
   a. During the connection process, the wires of the connection system should not be held or pushed. Application of force to the wires of the connection could result in damage to the individual components of the connection system.



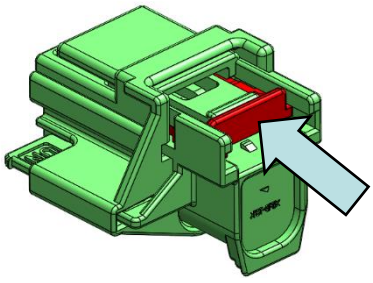
1) OFF Position



2) Press lock arm and push



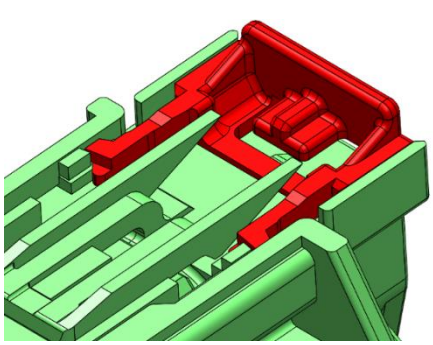
3) ON Position

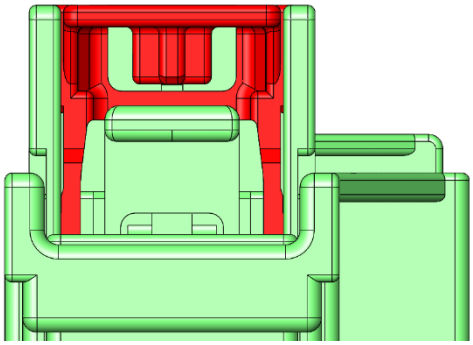


4) Engage the CPA (Optional)

11. Connector Position Assurance (CPA) Function

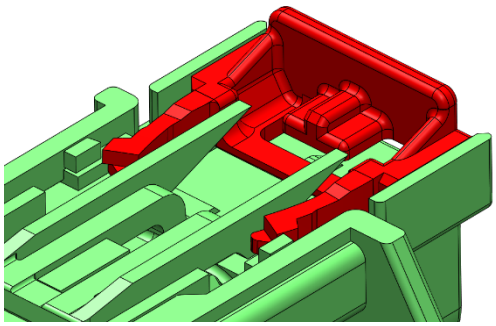
The connection system has been designed for use with an optional Connector Position Assurance (CPA) device. The purpose of the device is to provide a means by which to confirm if the connectors have been fully mated at the vehicle assembly plant. Function of the part is illustrated below:

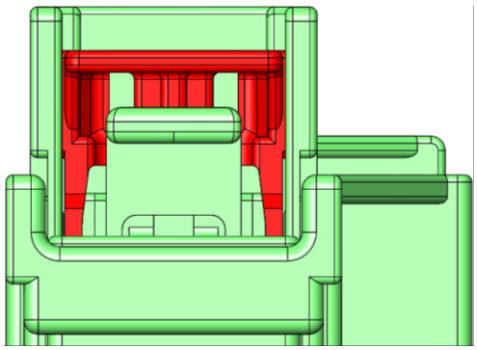




1. Pre-set Position of Housings (OFF Position)

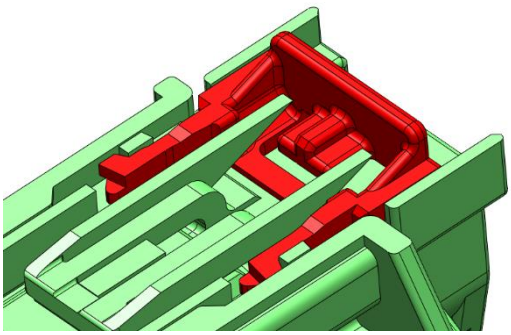
- CPA in Pre-Set Position

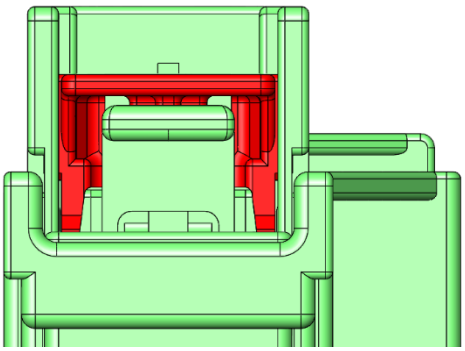




2. Mating In-Process

- Arms of the CPA deflected

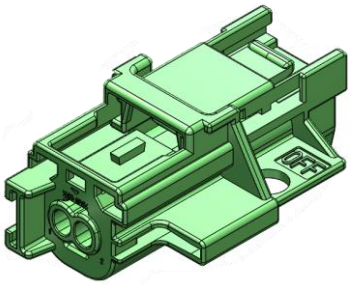
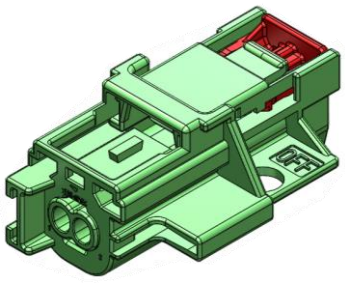
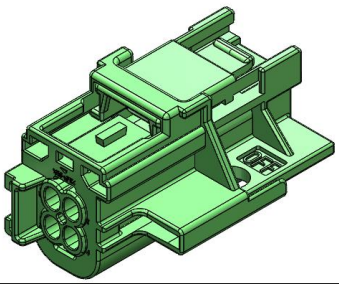
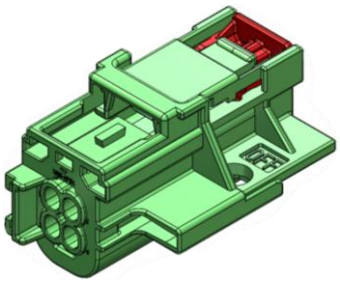




3. Fully Mated Condition

- CPA Engaged

12. Applicable Connectors Part Numbers

YAZAKI PART NUMBER (YAZAKI PART NAME)	SHAPE	NOTES (OFF POSITION)
7225-9608-60 2P 1.5mm SEALED SERVICE DISCONNECT ASSEMBLY		WITHOUT CPA COLOR: GREEN
7225-9609-60 2P 1.5mm SEALED SERVICE DISCONNECT ASSEMBLY		WITH CPA COLOR: GREEN
7225-3564-60 4P 1.5mm SEALED SERVICE DISCONNECT ASSEMBLY		WITHOUT CPA COLOR: GREEN
7225-3565-60 4P 1.5mm SEALED SERVICE DISCONNECT ASSEMBLY		WITH CPA COLOR: GREEN