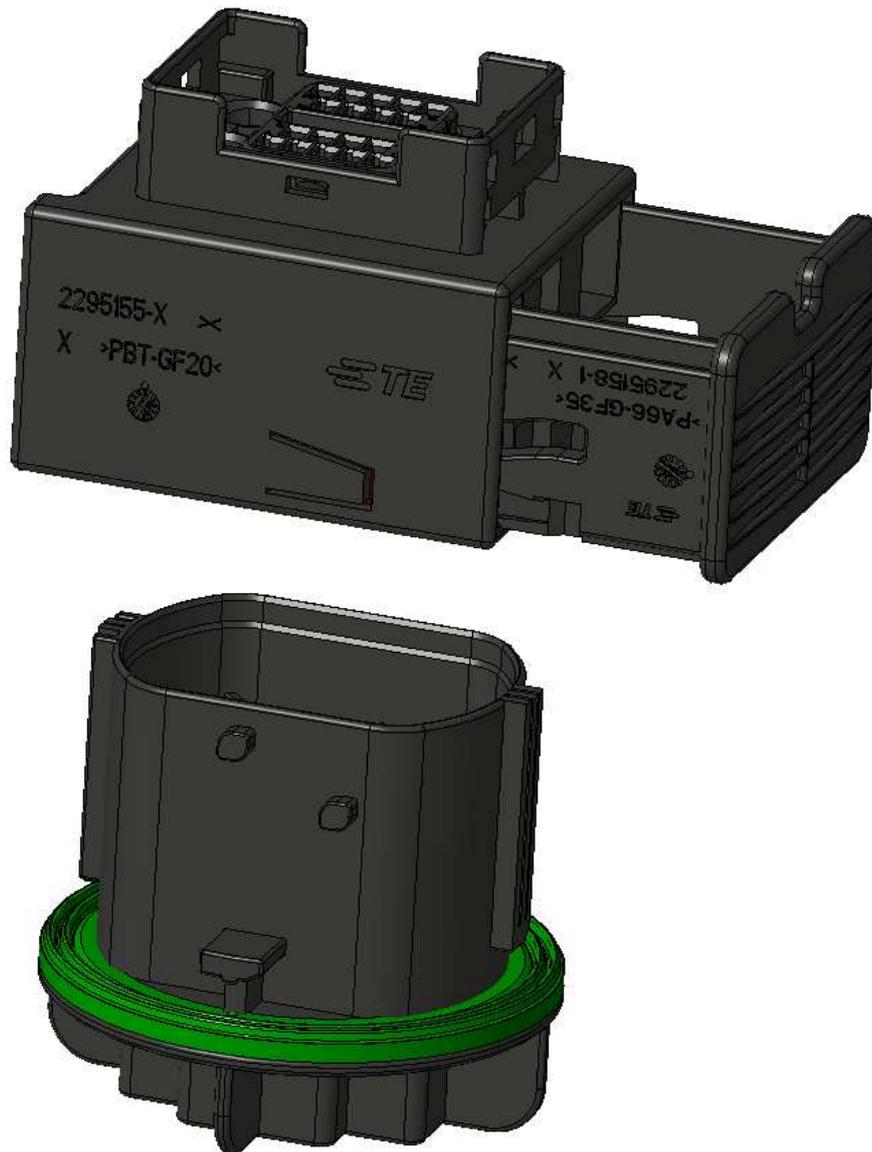


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22 WAY INLINE HEADLAMP CONNECTOR

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## 1 GENERAL

### 1.1 PURPOSE

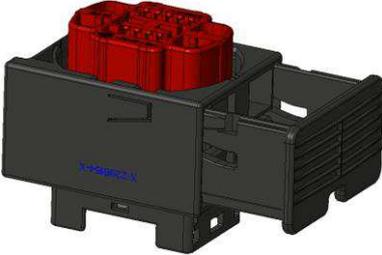
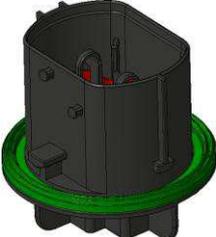
THIS SPECIFICATION DESCRIBES HOW TO HANDLE THE 22 WAY HEADLAMP CONNECTOR COMPONENTS.

### 1.2 CUSTOMER DRAWINGS / INTERFACE SPECIFICATION

THIS APPLICATION SPECIFICATION IS BASED ON THE LATEST VALID CUSTOMER DRAWINGS.

|           |   |
|-----------|---|
| 2295154   | FEMALE HOUSING ASSEMBLY, SEALED, 22 WAY CONNECTOR |
| 2295167   | MALE HOUSING ASSEMBLY, 22 WAY CONNECTOR           |
| 2295173   | WIRE COVER, CABLE EXIT 90°, 22 WAY CONNECTOR      |
| 2297532   | WIRE COVER, CABLE EXIT 180°, 22 WAY CONNECTOR     |
| 114-94373 | INTERFACE SPECIFICATION                           |

## 1.3 DELIVERY CONDITION OF CONNECTOR AND WIRE COVERS

|   |                |  |
|---|----------------|--|
| FEMALE HOUSING ASSEMBLY, SEALED, 22 WAY CONNECTOR | PN X-2295154-X |  A black plastic housing assembly with a red 22-way connector on top. The housing has a latch on the side and a blue 'FUSION' logo on the front.    |
| MALE HOUSING ASSEMBLY, 22 WAY CONNECTOR           | PN 0-2295167-X |  A black plastic housing assembly with a green 22-way connector on top. The housing has a latch on the side and a blue 'FUSION' logo on the front. |
| WIRE COVER, CABLE EXIT 90°, 22 WAY CONNECTOR      | PN 0-2295173-1 |  A black plastic wire cover with a 90-degree cable exit. It has a blue 'FUSION' logo on the front and a '2295173-1' part number on top.           |
| WIRE COVER, CABLE EXIT 180°, 22 WAY CONNECTOR     | PN 0-2297532-1 |  A black plastic wire cover with a 180-degree cable exit. It has a blue 'FUSION' logo on the front and a '2297532-1' part number on top.          |

## 1.4 APPLICABLE COMPONENTS

### 1.4.1 FEMALE CONNECTOR

| APPLICABLE COMPONENTS BOX                                  |                 |          |   | 6                             |
|--|-----------------|----------|---|-------------------------------|
| DESCRIPTION  | PLATING /COLOUR | SUPPLIER | SUPPLIER PART NO. (WIRE SIZE)           | TE APPL. SPEC. TE PROD. SPEC. |
| 0.64 GENERATION Y UNSEALED FEMALE TERMINAL                 | TIN             | TE       | 2035334-1 (0.35-0.5mm <sup>2</sup> )    | 114-13183<br>-                |
| 0.64 GENERATION Y UNSEALED FEMALE TERMINAL                 | TIN             | TE       | 2035334-2 (0.75mm <sup>2</sup> )        | 114-13183<br>-                |
| 0.64 GENERATION Y UNSEALED FEMALE TERMINAL                 | TIN             | TE       | 2035334-3 (0.35-0.5mm <sup>2</sup> )    | 114-13183<br>-                |
| 0.64 GENERATION Y UNSEALED FEMALE TERMINAL                 | TIN             | TE       | 2035334-4 (0.75mm <sup>2</sup> )        | 114-13183<br>-                |
| 0.64 GENERATION Y UNSEALED FEMALE TERMINAL                 | TIN             | TE       | 2035334-6 (0.35mm <sup>2</sup> )        | 114-13183<br>-                |
| 0.64 GENERATION Y UNSEALED FEMALE TERMINAL                 | TIN             | TE       | 2035334-8 (0.35mm <sup>2</sup> )        | 114-13183<br>-                |
| 2.8 SEALED FEMALE TERMINAL                                 | TIN             | YAZAKI   | 7116-4150-02 (0.35-0.5mm <sup>2</sup> ) | -                             |
| 2.8 SEALED FEMALE TERMINAL                                 | TIN             | YAZAKI   | 7116-4151-02 (0.75-1.0mm <sup>2</sup> ) | -                             |
| 2.8 SEALED FEMALE TERMINAL                                 | TIN             | YAZAKI   | 7116-4152-02 (1.5-2.5mm <sup>2</sup> )  | -                             |
| 2.8mm WIRE SEAL  | GREEN           | YAZAKI   | 7158-3111-60 (0.35-0.5mm <sup>2</sup> ) | -                             |
| 2.8mm WIRE SEAL  | YELLOW          | YAZAKI   | 7158-3112-70 (0.75-1.0mm <sup>2</sup> ) | -                             |
| 2.8mm WIRE SEAL  | WHITE           | YAZAKI   | 7158-3113-40 (1.5-2.5mm <sup>2</sup> )  | -                             |
| 2.8mm BLIND PLUG   | BLUE            | YAZAKI   | 7158-3114-90                            | -                             |
| CAVITY PLUG FOR 0.64 GENERATION Y UNSEALED FEMALE TERMINAL | YELLOW          | TE       | 284583-1                                | -                             |
| WIRE COVER, CABLE EXIT 90°                                 | BLACK           | TE       | 2295173-1                               | 114-94456<br>-                |
| WIRE COVER, CABLE EXIT 180°                                | BLACK           | TE       | 2297532-1                               | 114-94456<br>-                |



ONLY FOR INFORMATION. CHECK LATEST REVISION OF THE SUPPLIER SPECIFICATION FOR TERMINAL PROPERTIES

### 1.4.2 MALE CONNECTOR

| APPLICABLE COMPONENTS BOX                |                 |          |   | 4                             |
|--|-----------------|----------|---|-------------------------------|
| DESCRIPTION                              | PLATING /COLOUR | SUPPLIER | SUPPLIER PART NO. (WIRE SIZE)           | TE APPL. SPEC. TE PROD. SPEC. |
| 0.64 GENERATION Y UNSEALED MALE TERMINAL | TIN             | TE       | 1924968-1 (0.35-0.5mm <sup>2</sup> )    | 114-13183<br>-                |
| 0.64 GENERATION Y UNSEALED MALE TERMINAL | TIN             | TE       | 1924968-2 (0.75mm <sup>2</sup> )        | 114-13183<br>-                |
| 0.64 GENERATION Y UNSEALED MALE TERMINAL | TIN             | TE       | 1924968-3 (0.35-0.5mm <sup>2</sup> )    | 114-13183<br>-                |
| 0.64 GENERATION Y UNSEALED MALE TERMINAL | TIN             | TE       | 1924968-4 (0.75mm <sup>2</sup> )        | 114-13183<br>-                |
| 0.64 GENERATION Y UNSEALED MALE TERMINAL | TIN             | TE       | 1924968-6 (0.35mm <sup>2</sup> )        | 114-13183<br>-                |
| 0.64 GENERATION Y UNSEALED MALE TERMINAL | TIN             | TE       | 1924968-8 (0.35mm <sup>2</sup> )        | 114-13183<br>-                |
| 2.8 MALE TERMINAL                        | TIN             | YAZAKI   | 7114-4110-02 (0.35-0.5mm <sup>2</sup> ) | -                             |
| 2.8 MALE TERMINAL                        | TIN             | YAZAKI   | 7114-4111-02 (0.75-1.0mm <sup>2</sup> ) | -                             |
| 2.8 MALE TERMINAL                        | TIN             | YAZAKI   | 7114-4112-02 (1.5-2.5mm <sup>2</sup> )  | -                             |
| 2.8 MALE TERMINAL                        | TIN             | TE       | 0-1326029-1 (0.35mm <sup>2</sup> )      | 114-13013                     |
| 2.8 MALE TERMINAL                        | TIN             | TE       | 0-1326029-2 (0.5-1.0mm <sup>2</sup> )   | 114-13013                     |
| 2.8 MALE TERMINAL                        | TIN             | TE       | 0-1326029-3 (1.5-2.5mm <sup>2</sup> )   | 114-13013                     |



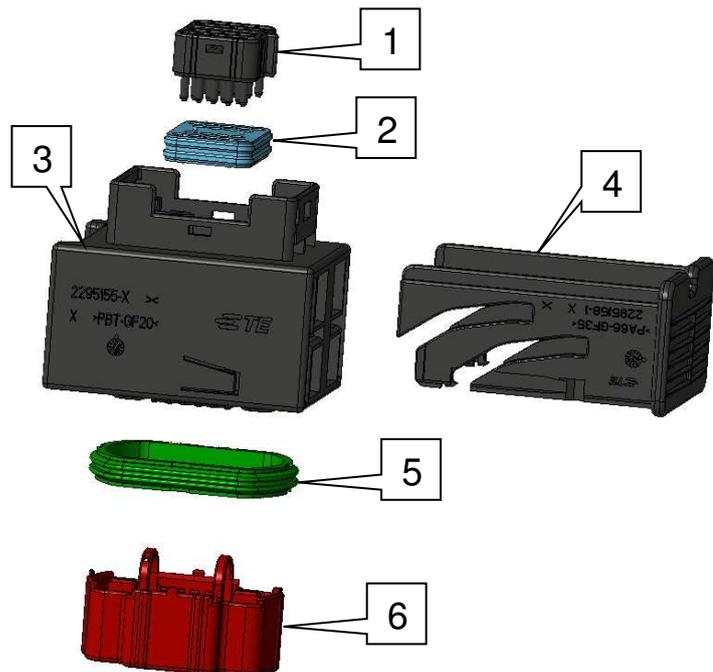
ONLY FOR INFORMATION. CHECK LATEST REVISION OF THE SUPPLIER SPECIFICATION FOR TERMINAL PROPERTIES

## 2 CONNECTOR OPERATING INSTRUCTIONS

### 2.1 ASSEMBLY OF THE CONNECTOR

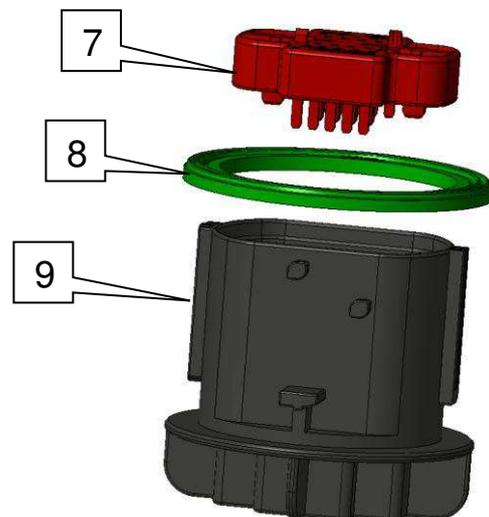
#### 2.1.1 FEMALE CONNECTOR

- 1 MAT SEAL COVER
- 2 MAT SEAL
- 3 FEMALE HOUSING
- 4 SLIDER
- 5 PERIPHERAL SEAL
- 6 FEMALE SPACER (TPA)



#### 2.1.2 MALE CONNECTOR

- 7 MALE SPACER (TPA)
- 8 PANEL SEAL
- 9 MALE HOUSING

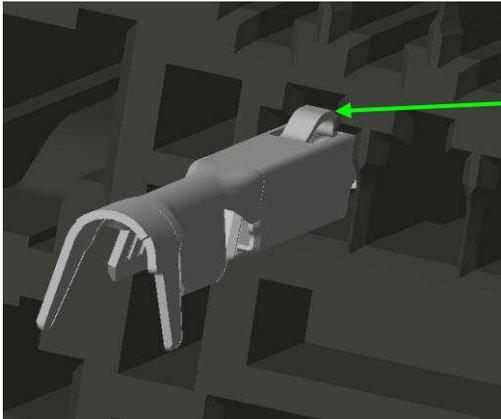


## 2.2 TERMINAL INSERTION / REMOVAL INSTRUCTIONS

### 2.2.1 TERMINAL INSERTION

#### GENERATION Y (0.64) MALE TERMINAL

INSERT TERMINALS STRAIGHT IN CAVITIES UNTIL "CLICK".



TERMINAL AND CAVITY  
ORIENTATION FEATURE

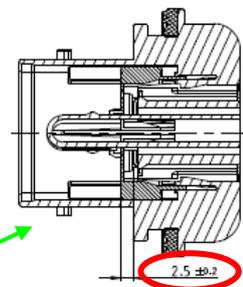
#### 2.8 mm MALE TERMINAL

INSERT TERMINALS STRAIGHT IN CAVITIES UNTIL "CLICK".



TERMINAL AND CAVITY  
ORIENTATION FEATURE

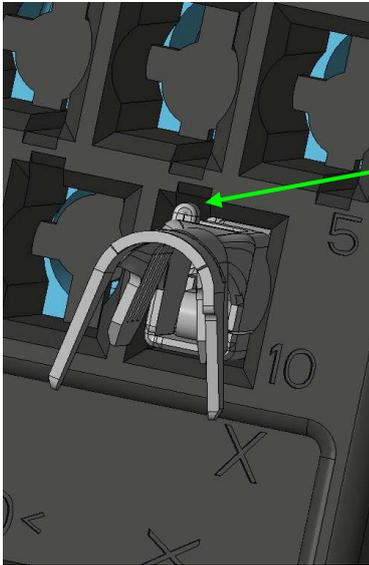
CONNECTOR VIEW WITH TPA  
IN SET-POSITION  
(AFTER TERMINAL INSERTION)



#### NOTE:

AFTER TERMINAL INSERTION OPERATION THE SPACER (TPA) MUST BE MOVED FROM PRE-LOCK POSITION TO SET POSITION (SEE CUSTOMER DRAWING). END-LOCK POSITION IS REACHED DURING CONNECTOR MATING OPERATION.

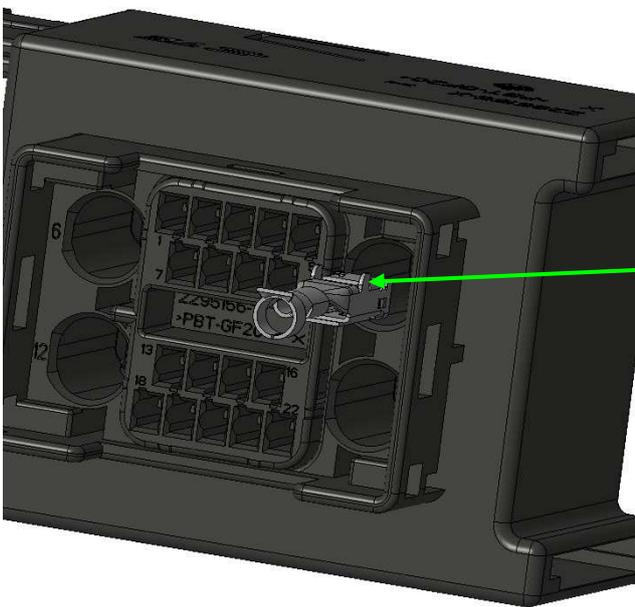
GENERATION Y (0.64) FEMALE TERMINAL



TERMINAL AND CAVITY  
ORIENTATION FEATURE

2.8 mm FEMALE TERMINAL

INSERT TERMINALS STRAIGHT IN CAVITIES UNTIL "CLICK".



TERMINAL ORIENTATION  
FEATURE.  
CAVITY ORIENTATION  
NOT VISIBLE, TERMINAL  
MUST ALWAYS BE  
INSERTED WITH THE  
ORIENTATION FEATURES  
TO THE OUTSIDE OF THE  
CONNECTOR

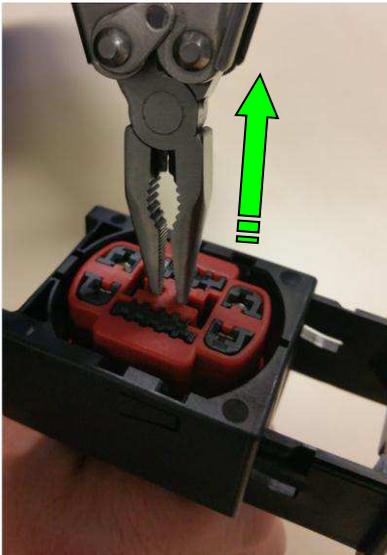
**NOTE:**

AFTER TERMINAL INSERTION OPERATION THE SPACER (TPA) MUST BE MOVED FROM PRE-LOCK POSITION TO END-LOCK POSITION.

## 2.2.2 SPACER (TPA) REMOVAL

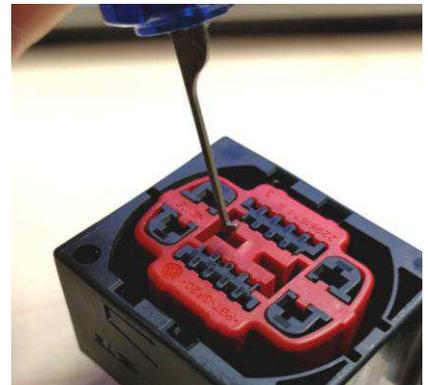
## FEMALE CONNECTOR SPACER (TPA) REMOVAL

FEMALE CONNECTOR SPACER (TPA) IN FULLY ENGAGED POSITION.

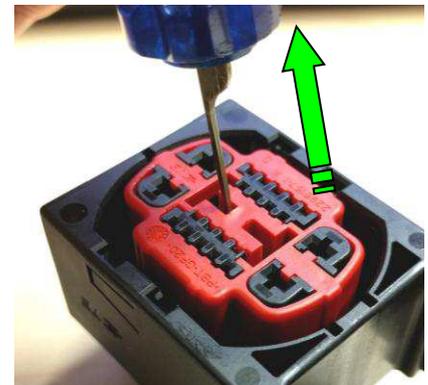


USE A PAIR OF  
TONGS TO PULL  
THE SPACER  
(TPA) OUT OF  
THE HOUSING

OR



USE A HOOK-LIKE  
TOOL. INSERT THE  
TOOL INTO THE  
SPACER (TPA)  
HOLE AS SHOWN  
AND PULL THE  
SPACER

**NOTE:**

USE A HOOK-LIKE TOOL (E.G. TE 726531-1) TO REMOVE THE FEMALE SPACER (TPA)



**MALE CONNECTOR SPACER (TPA) REMOVAL**

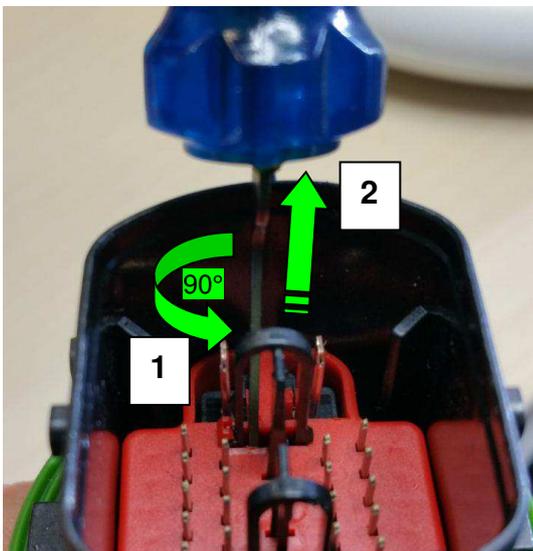
MALE CONNECTOR SPACER (TPA) IN FULLY ENGAGED POSITION.

**STEP 1**

INSERT THE TOOL INTO THE SPACER (TPA) HOLE WITH THE HOOK TURNED AS SHOWN

**STEP 2**

SHORTLY UNDER THE SPACER SURFACE TURN THE TOOL 90° AND PULL THE SPACER (TPA)



**STEP 3**

PLACE THE TOOL AS SHOWN, TURN THE HOOK UNDER THE SPACER (TPA) AND PULL THE SPACER (TPA) FULLY OUT OF THE HOUSING



**NOTE:**

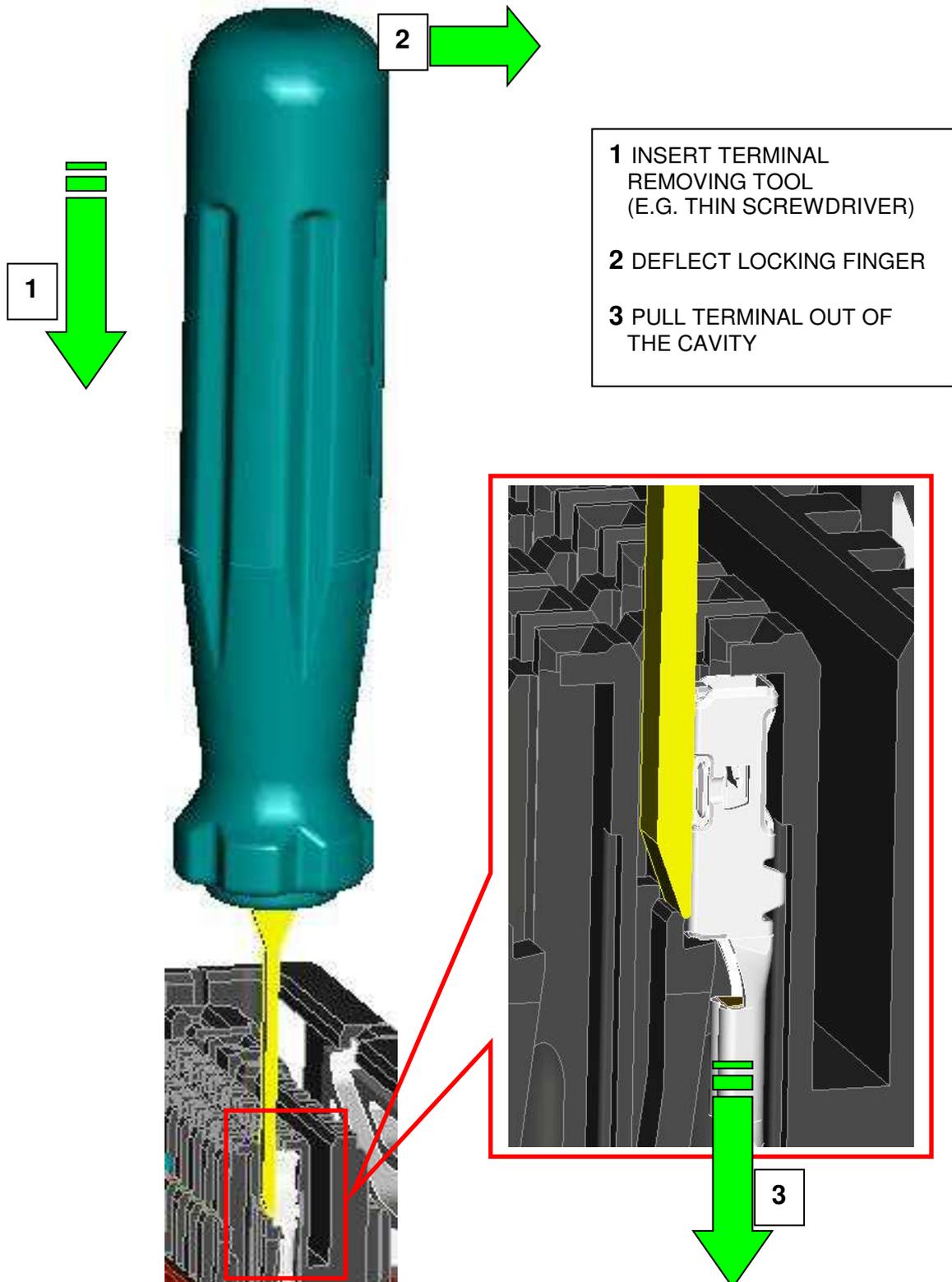
USE A HOOK-LIKE TOOL (E.G. TE 726531-1) TO REMOVE THE MALE SPACER (TPA)



## 2.2.3 TERMINAL EXTRACTION – APPLY TO ALL TERMINALS

**NOTE:**

SPACER (TPA) MUST BE FULLY REMOVED BEFORE TERMINAL REMOVAL OPERATIONS!

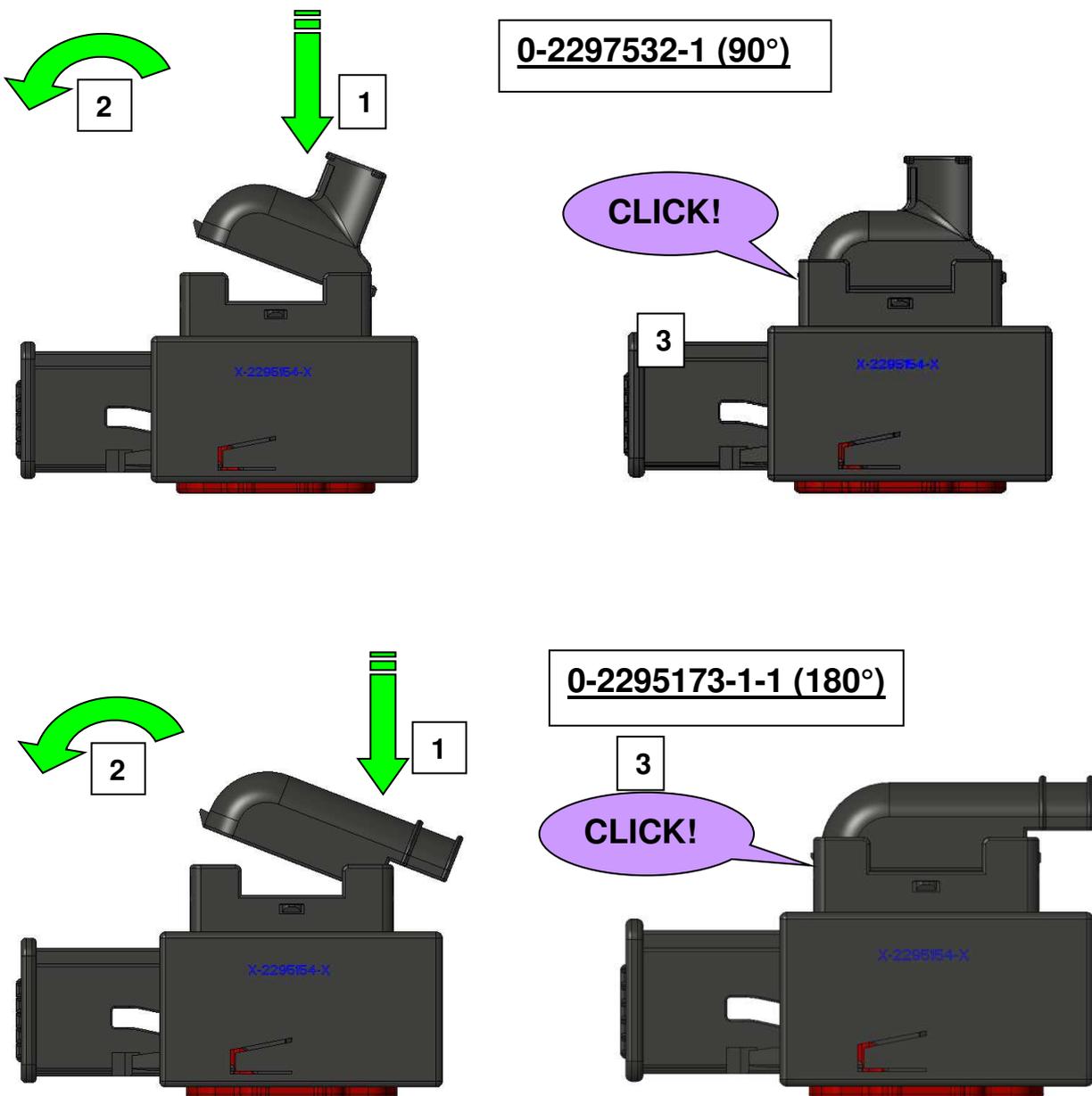


2.3 WIRE OUTER DIAMETER REQUIREMENTS FOR SEALING (MAT SEAL)

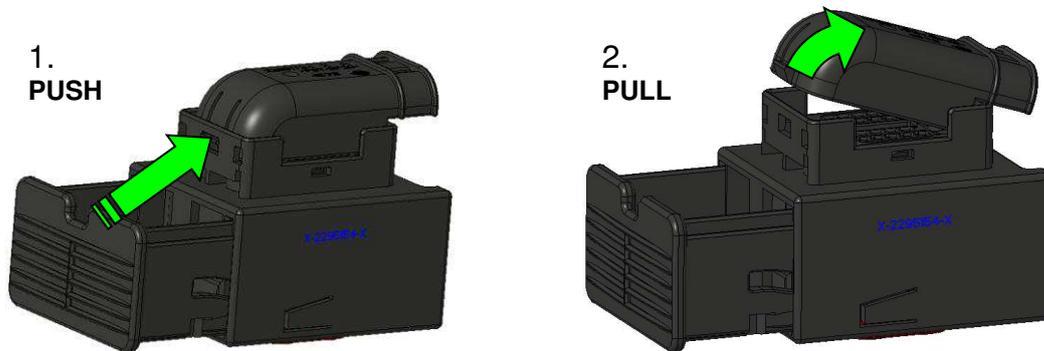
PLEASE SEE CUSTOMER DRAWINGS

2.4 COVER MOUNTING / REMOVAL INSTRUCTIONS FOR CABLE EXIT 180°/90°

2.4.1 COVER MOUNTING



## 2.4.2 COVER REMOVAL - APPLY TO BOTH 180° AND 90° WIRE COVERS

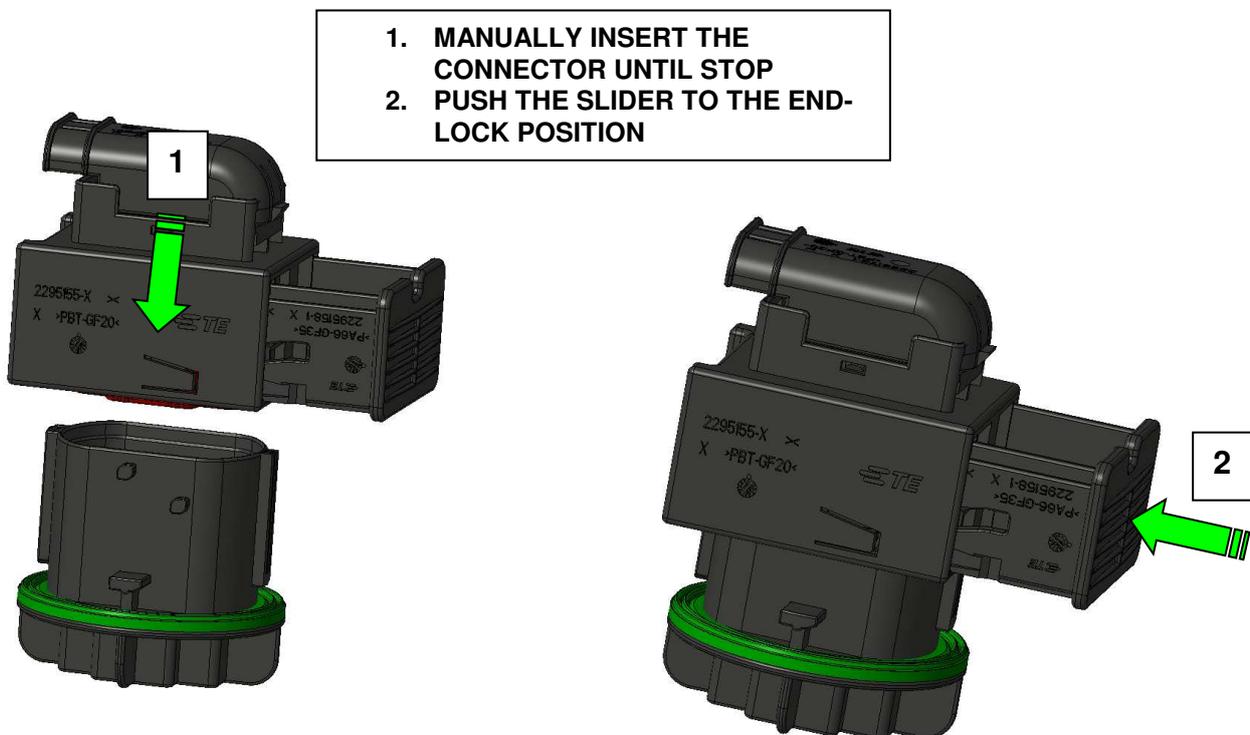


## 3 CONNECTOR MATING / UNMATING

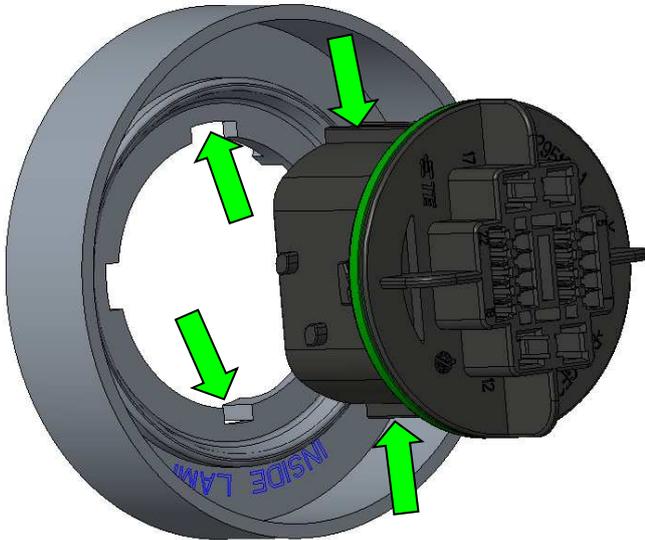
### 3.1 CONNECTOR MATING

#### 3.1.1 FEMALE CONNECTOR ON MALE CONNECTOR

**NOTE:** BEFORE MATING THE CONNECTOR MAKE SURE THAT THE SLIDER IS AT PRE-LOCK POSITION (DELIVERY CONDITION SHOWN ON CUSTOMER DRAWING).



3.1.2 MALE CONNECTOR ON HEADLAMP INTERFACE



INSERT THE MALE CONNECTOR INTO THE HEADLAMP CUTOUT

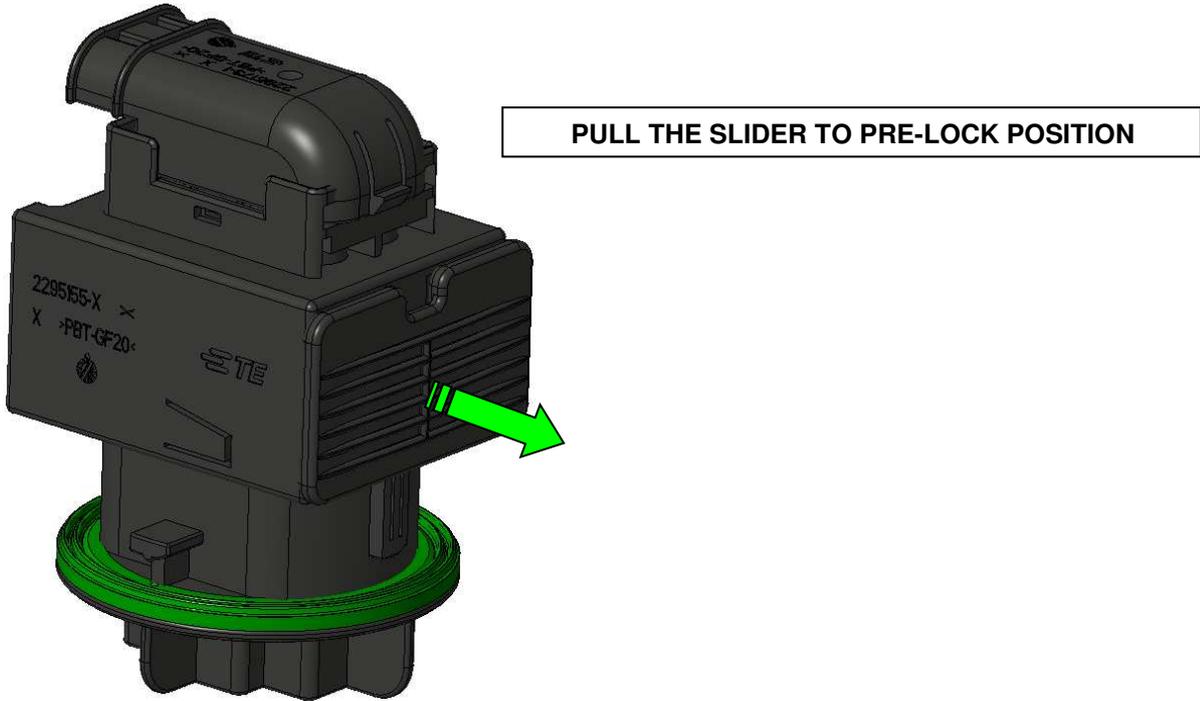
**NOTE:** LOOK OUT FOR THE RIGHT ORIENTATION (  ORIENTATION FEATURES)



TURN THE CONNECTOR CLOCKWISE UNTIL STOP WHILE KEEPING PUSHING

### 3.2 CONNECTOR UNMATING

#### 3.2.1 FEMALE CONNECTOR FROM MALE CONNECTOR



#### 3.2.2 MALE CONNECTOR FROM HEADLAMP INTERFACE (NOT RECOMMENDED)

