

# **TOYOTA**

## **Wire Harness Repair Manual**

**1991 - 2005**



## FOREWORD

This manual has been prepared for use when performing terminal repairs, wire repairs, or connector repairs on vehicles.

A step-by-step section on connector repair and terminal repair is included.

There is a section of charts with terminal and connector illustrations, part numbers, and notes on terminal removal.

By using this guide, a satisfactory repair of the wiring harness and connectors in Toyota vehicles will be easy to achieve.

All information in this manual is based on the latest product information at the time of publication. However, specifications and procedures are subject to change without notice.

**TOYOTA MOTOR CORPORATION**

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## GENERAL INFORMATION

This manual provides instruction in the following repairs:

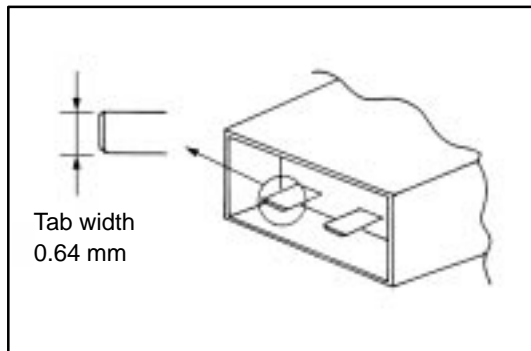
- How to Inspect for System Inspection
- Circuit Protection
- Terminal and Connector Repair Procedure

### NOTICE:

When inspecting or repairing the SRS AIRBAG, be sure to carefully read the precautionary instructions and procedure in the Repair Manual for the applicable model.

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After any electrical repair is made, always test the circuit by operating the devices in the circuit. This confirms not only that the repair is correct, but also that the cause of the complaint was correctly identified.



### Terminal type number name

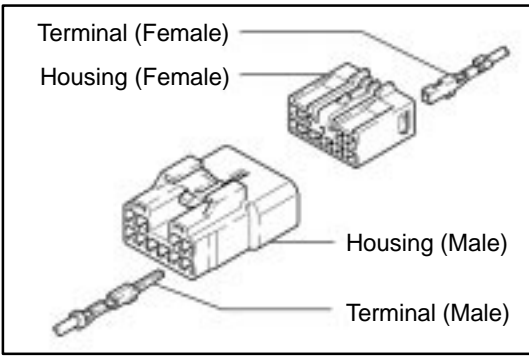
The terminal type number naming system has changed: the metric system will be used in place of the inch system. To be more specific, male tab width "in millimeters" will be used as terminal type number from now on — in place of male tab width in inches which has been in use so far.

Below is a table of comparison:

Old terminal type No. (inch)		New terminal type No. (mm)
025	→	0.64
040 (II, III, IV)	→	1.0 (II, III, IV)
050	→	1.3
070 (II)	→	1.8 (II)
090 (II)	→	2.3 (II)
187	→	4.8
250 (II)	→	6.3 (II)
305	→	7.7
312	→	8.0
375	→	9.5

For those connectors which are not shown above, the terminal type numbers remain unchanged.

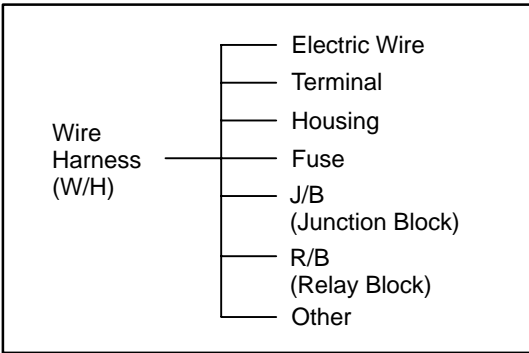
**INTRODUCTION-GENERAL INFORMATION**



**What is Wire Harness?**

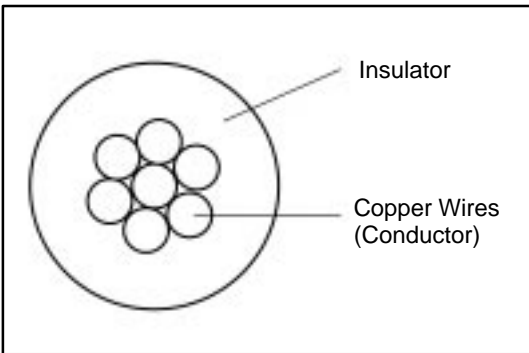
The wire harness (W/H) is systems of electric wires for automobiles to connect all the electronics parts in automobile electrically and work them. As more electronics parts are introduced in automobiles recently, the electric wires used for the wire harness are increasing in number and the structure is becoming more complicated. As a result of that, there are hundreds of connectors, which is the parts which connects wires mechanically and electrically, in one vehicle. Therefore, numbers of the connector terminal (Terminal) or the connector housing (Housing) are designed to meet many kinds of uses of circuits. Various components have been improved to ensure the product reliability or realize a wider space in the vehicles.

**A**



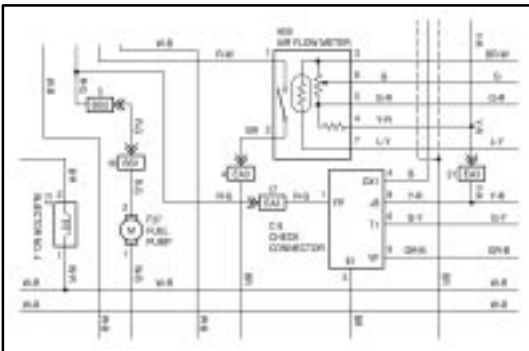
**Wire Harness Components**

Wire harness mainly consists of wires, terminals, or housings. There are various components are designed for many parts of vehicles, such as one with high heat-resistance, water-resistance, or bending ability, ones have different current capacities, or ones are hardly influenced by electromagnetic noise.



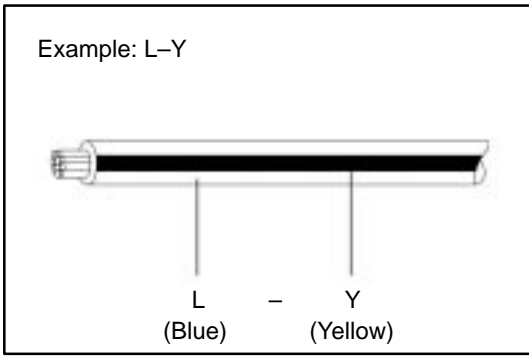
**Electric Wire**

The electric wires used for the wire harness consists of the conductor made from numbers of twisted mild copper wire with a diameter of less than 0.5 mm and the insulator surrounding the conductor. The insulator is generally made from vinyl chloride and covers the conductor with even thickness. The insulators are color-coded in order to distinguish each wire. The base colors or the stripe patterns is used to make difference between insulators. Each color of wires is indicated by the abbreviation in the repair manual and the electrical wiring diagram.



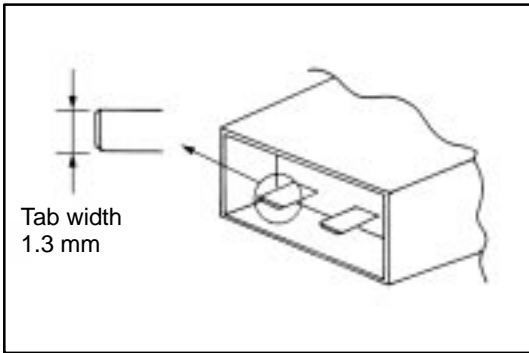
B = Black	W = White
L = Blue	BR = Brown
V = Violet	SB = Sky Blue
R = Red	G = Green
P = Pink	LG = Light Green
Y = Yellow	GR = Gray
O = Orange	

INTRODUCTION-GENERAL INFORMATION



The first letter indicates the basic wire color and the second letter indicates the color of the stripe.

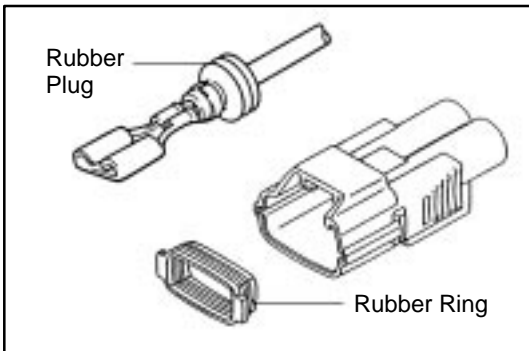
A



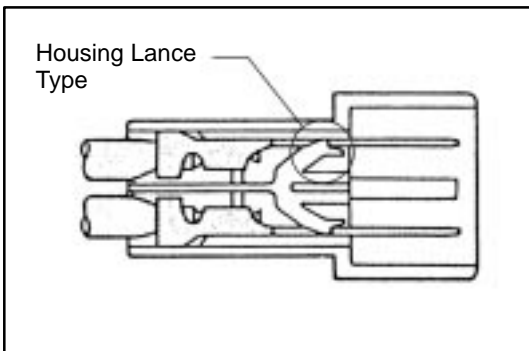
Terminal and housing

Terminal connects wires and housing insulates connecting parts.

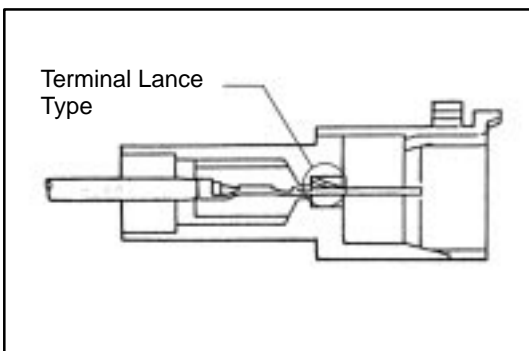
There are the male terminal and the female terminal. The types of terminals are decided by tab width of male terminal. And the terminal with the rubber plug or the rubber ring is used in the part, such as the engine compartment, which become wet. For the circuit with slight current at EFI system or ABS system, the gold-plated terminal is introduced for ensuring reliabilities.



As the number of the circuit is increasing recently, there are new types of parts introduced. For example, there is the hybrid type housing, which is a combination of terminals with different tab width, such as the power source terminal or the signal terminal. Also, new type of connector such as the double lock housing, which is designed with the retainer in addition to the lance to prevent terminal from slipping off, is available. The new type of connectors are produced to realize higher product reliabilities and utilized widely recently. The major characteristics of these new connectors are shown in the table 1.

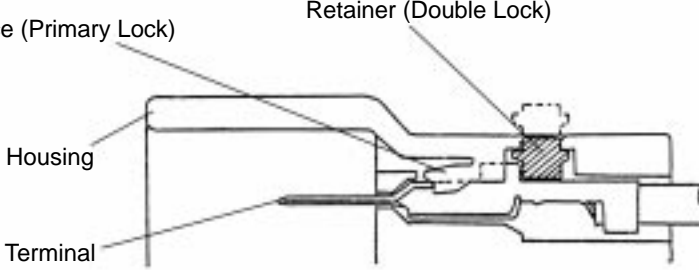
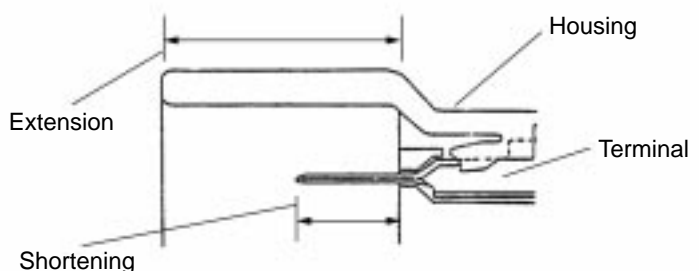

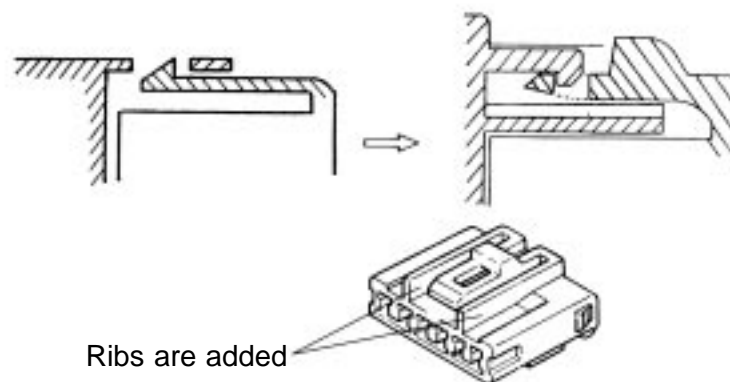


There are two types of lances: housing lance, which is inside the housing and terminal lance, which is inside the terminal.



INTRODUCTION-GENERAL INFORMATION

**Table 1 : Characteristics of the new types of connector (Improvement)**

Characteristics (Improvement)	Note
<p>1. Double Lock</p> <p>Lance (Primary Lock)      Retainer (Double Lock)</p> 	<p>If terminal is not inserted to housing correctly, the retainer does not fit.</p>
<p>2. Extension of Housing</p> 	<p>This is to prevent deformation of the terminal when it is inserted diagonally.</p>
<p>3. Change of Contact Structure and Introduction of Box-Shaped Structure</p> 	<p>Expansion of contact section Stabilization of contact pressure</p>
<p>4. Change of Locking Shape</p>  <p>Ribs are added</p>	<p>This improves the close fit of locking and you can hear the click sound and feel that the connector is completely installed.</p>

A

## HOW TO PERFORM FOR SYSTEM INSPECTION

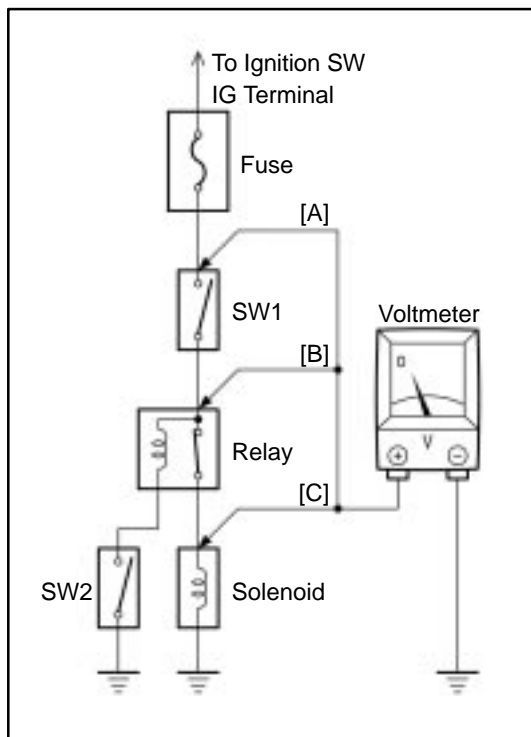
This inspection procedure is a simple troubleshooting which should be carried out on the vehicle during system operation and is based on the assumption of system component trouble

Always inspect the trouble taking the following items into consideration:

- Ground point fault
- Open or short circuit of the wire harness
- Connector or terminal connection fault
- Fuse or fusible link fault

### NOTICE:

- This is an on-vehicle inspection during system operation. Therefore, inspect the trouble with due regard for safety.
- If connecting the battery directly, be careful not to cause a short circuit, and select the applicable voltage.



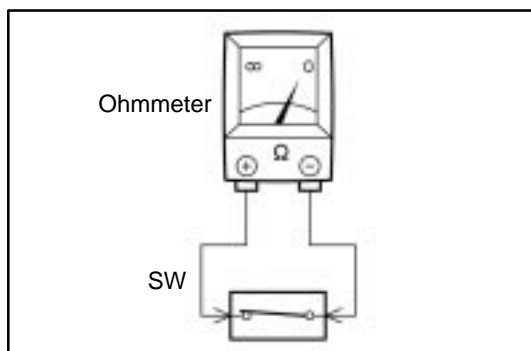
### 1. Voltage Check

- Establish conditions in which voltage is present at the check point.

Example:

- [A] – Ignition SW on
- [B] – Ignition SW and SW 1 on
- [C] – Ignition SW, SW 1 and Relay on (SW 2 off)

- Using a voltmeter, connect the negative (–) lead to a good ground point or negative (–) battery terminal and the positive (+) lead to the connector or component terminal. This check can be done with a test bulb instead of a voltmeter.

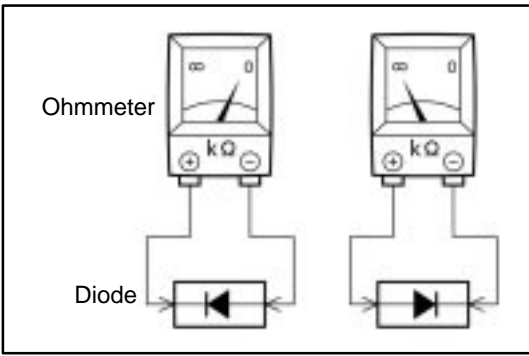


### 2. Continuity and Resistance Check

- Disconnect the battery terminal or wire so there is no voltage between the check points.
- Contact the two leads of an ohmmeter to each of the check points.



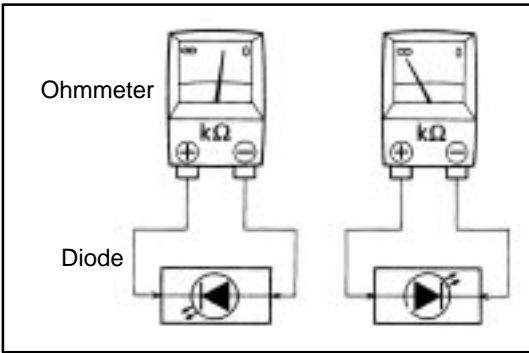
**INTRODUCTION—HOW TO PERFORM FOR SYSTEM INSPECTION**



If the circuit has diodes, reverse the two leads and check again.

When touching the negative (-) lead to the diode positive (+) side and the positive (+) lead to the negative (-) side, there should be continuity. When touching the two leads in reverse, there should be no continuity.

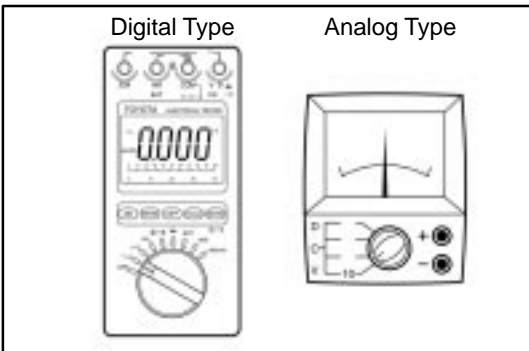
**HINT:** Specifications may vary depending on the type of tester, so refer to the tester's instruction manual before performing the inspection.



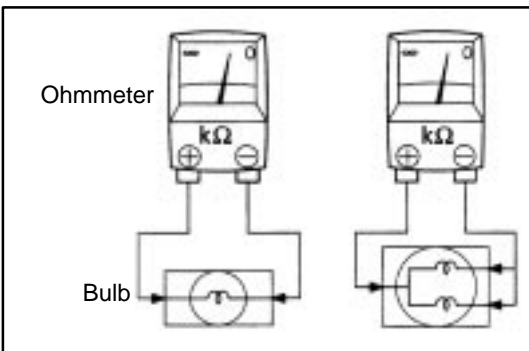
Check LED (Light Emitting Diode) in the same manner as that for diodes.

**HINT:**

- Use a tester with a power source of 3V or greater to overcome the circuit resistance.
- If a suitable tester is not available, apply battery voltage and check that the LED lights up.

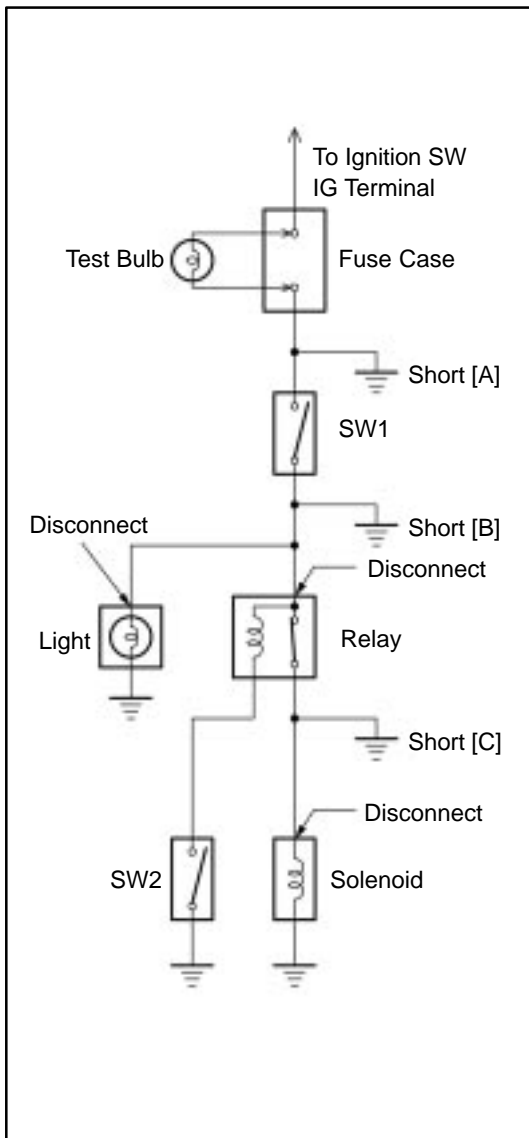


- (c) Use a volt/ohmmeter with high impedance (10kΩ/V minimum) for troubleshooting of the electrical circuit.



**3. Bulb Check**

- (a) Remove the bulb.
- (b) There should be continuity between the respective terminals of the bulb together with a certain amount of resistance.
- (c) Apply the two leads of the ohmmeter to each of the terminals.
- (d) Apply battery voltage and check that the bulb light up.



#### 4. Finding a Short Circuit

- (a) Remove the blown fuse and eliminate all loads from the fuse.
- (b) Connect a test bulb in place of the fuse.
- (c) Establish conditions in which the test bulb comes on.

Example:

[A] – Ignition SW on

[B] – Ignition SW and SW 1 on

[C] – Ignition SW, SW 1 and Relay on (Connect the Relay) and SW 2 off (or disconnect SW 2)

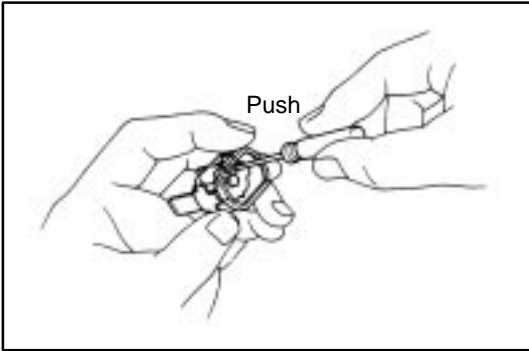
- (d) Disconnect and reconnect the connectors while watching the test bulb. The short lies between the connector where the test bulb stays lit and the connector where the bulb goes out.
- (e) Find the exact location of the short by lightly shaking the problem wire along the body.

#### CAUTION:

- (a) **Do not open the cover or the case of the ECU unless absolutely necessary. (If the IC terminals are touched, the IC may be destroyed by static electricity.)**
- (b) **When replacing the internal mechanism (ECU part) of the digital meter, be careful that no part of your body or clothing comes in contact with the terminals of leads from the IC, etc. of the replacement part (spare part).**

## CIRCUIT PROTECTION

All electrical circuits are protected against excessive loads which might occur because of shorts or overloads in the wiring system. Such protection is provided by a fuse, circuit breaker, or fusible link. A short circuit may cause a fuse to blow or a circuit breaker to open.



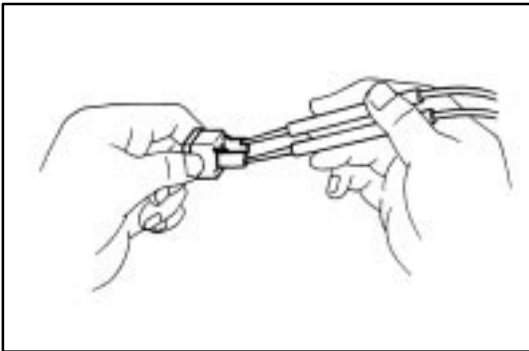
### RESET CIRCUIT BREAKER

#### 1. Remove Circuit Breaker

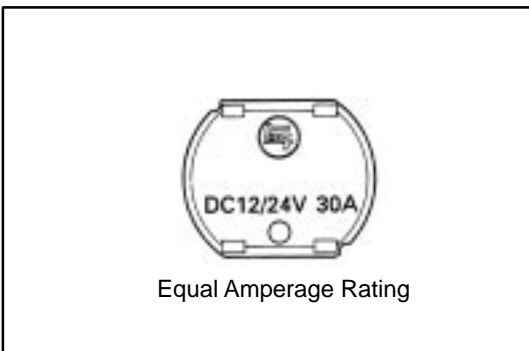
- (a) Disconnect the negative (-) cable from the battery.
- (b) Remove the circuit breaker.

#### 2. Reset Circuit Breaker

- (a) Insert the needle into the reset hole and push it.



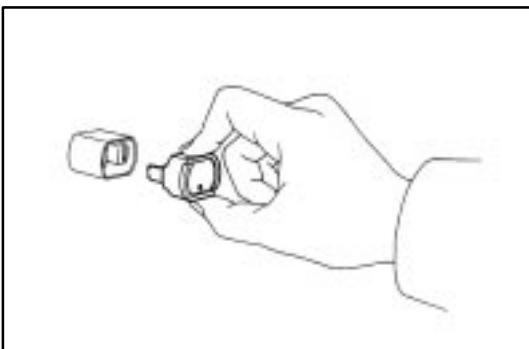
- (b) Using an ohmmeter, check that there is continuity between both terminals of the circuit breaker. If continuity is not as specified, replace the circuit breaker.



**HINT:** If replacing the circuit breaker, be sure to replace it with a breaker with an equal amperage rating.

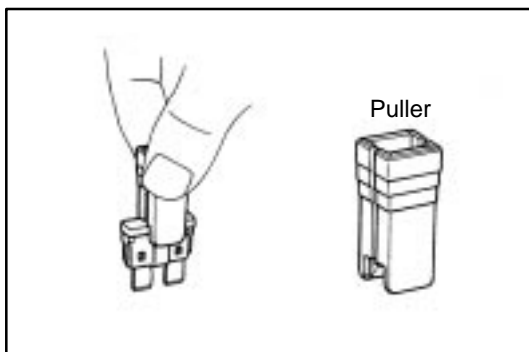
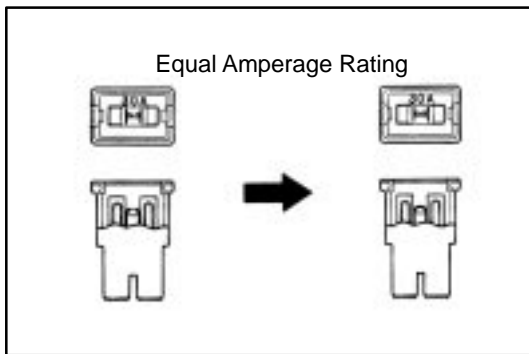
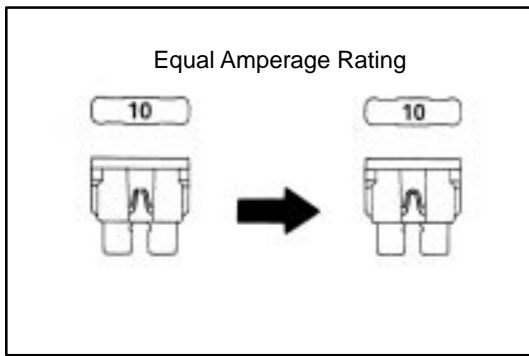
#### 3. Install Circuit Breaker

- (a) Install the circuit breaker.
  - (b) Connect the negative (-) cable to the battery.
- HINT:** If a circuit breaker continues to cut out, a short circuit is indicated. Have the system checked by a qualified technician.



## REPLACEMENT OF FUSE AND FUSIBLE LINK

**HINT:** If replacing the fuse or fusible link, be sure to replace it with a fuse or fusible link with an equal amperage rating.

**NOTICE:**

1. **Turn off all electrical components and the ignition switch before replacing a fuse or fusible link. Do not exceed the fuse or fusible link amperage rating.**
2. **Always use a fuse puller for removing and inserting a fuse. Remove and insert straight in and out without twisting. Twisting could force open the terminals too much, resulting in a bad connection.**

If a fuse or fusible link continues to blow, a short circuit is indicated. The system must be checked by a qualified technician.

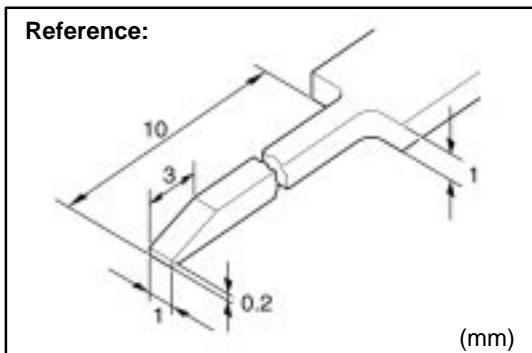
**HINT:** The puller is located at Junction Block No.2.

TERMINAL AND CONNECTOR REPAIR-PREPARATORY ITEMS

PREPARATORY ITEMS

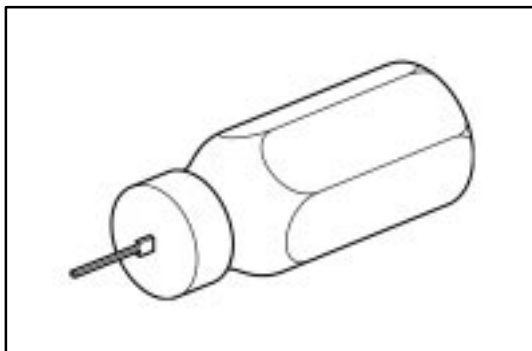
Tool	Crimping tool	AMP Part No. 169060	For caulking press sleeves
	Special tool	Refer to the following illustration	To remove the terminal
	SST	09991-00500	To remove the 0.64 connector terminal
Gauge	Caliper	0-150 mm	To measure the diameter of the core
Others	Press sleeve	82999-12010 (Red) 82999-12020 (Blue) 82999-12030 (Yellow)	To connect wires
	Silicon tape	08231-00045	To waterproof the connected section

**B**



**Special Tool**

HINT: To remove the terminal from the connector, please construct and use the special tool or like object shown on the left.



Preparation of the SST to release the 0.64 connector terminal.  
SST 09991-00500

HINT:  
This is a SST for releasing terminals from 0.64 connectors.

## CONNECTOR REPAIR

The repair parts now in supply are limited to those connectors having common shapes and terminal cavity numbers. Therefore, when there is no available replacement connector of the same shape or terminal cavity number, please use one of the alternative methods described below. Make sure that the terminals are placed in the original order in the connector cavities, if possible, to aid in future diagnosis.

1. When a connector with a different number of terminals than the original part is used, select a connector having more terminal cavities than required, and replace both the male and female connector parts.

EXAMPLE: You need a connector with six terminals, but the only replacement available is a connector with eight terminal cavities. Replace both the male and female connector parts with the eight terminal part, transferring the terminals from the old connectors to the new connectors.

2. When several different type terminals are used in one connector, select an appropriate male and female connector part for each terminal type used, and replace both male and female connector parts.

EXAMPLE: You need to replace a connector that has two different types of terminals in one connector. Replace the original connector with two new connectors, one connector for one type of terminal, another connector for the other type of terminal.

3. When a different shape of connector is used, first select from available parts a connector with the appropriate number of terminal cavities, and one that uses terminals of the same size as, or larger than, the terminal size in the vehicle. The wire lead on the replacement terminal must also be the same size as, or larger than, the nominal size of the wire in the vehicle. ("Nominal" size may be found by looking at the illustrations in the section F or by direct measurement across the diameter of the insulation). Replace all existing terminals with the new terminals, then insert the terminals into the new connector.

EXAMPLE: You need to replace a connector that is round and has six terminal cavities. The only round replacement connector has three terminal cavities. You would select a replacement connector that has six or more terminal cavities and is not round, then select terminals that will fit the new connector. Replace the existing terminals, then insert them into the new connector and join the connector together.

**B**

**TERMINAL REPLACEMENT**

These steps **must** be followed when replacing a terminal.

**Step 1. Identify the connector and the terminal type.**



**Step 2. Disconnect the terminal from the connector.**



**Step 3. Replace the terminal.**



**Step 4. Install the terminal into the connector.**

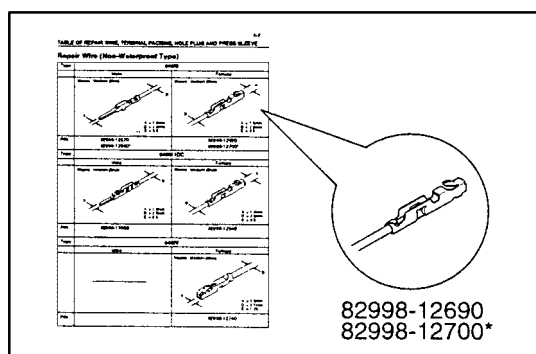
**B**

**Step 1. Identify the connector and the terminal type.**

Confirm whether the connector you require is the non-waterproof, waterproof or combined terminal type connector from the pictures provided in the following charts.

Connector	Description
Non-Waterproof Type	Those connectors which are not of the waterproof or combined terminal type.
Waterproof Type	Waterproof material (hole plug or terminal packing) is provided on the terminal/connector body.
Combined Terminal Type	Terminals of different shape/size are located in one connector.

**B**



**1. Terminal with Wire**

Identify the part number of the terminal with wire by picking out the corresponding illustration from the pictures provided on the following charts.

**HINT:** In some of the illustrations, there are two part numbers for the same illustration of terminal with wire, because although the shapes of the terminals are completely the same, there is a difference in with /without gold-plating (gilded).

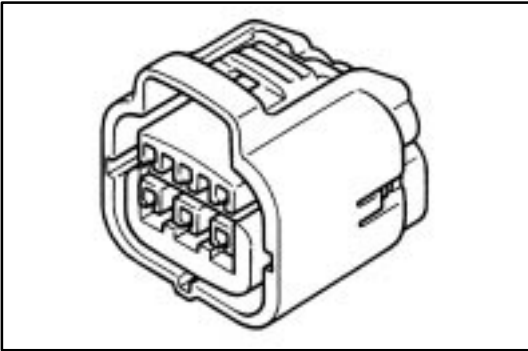
**Remark:** The length of the wire connected to the terminal is approximately 150 mm.



## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT

### NOTICE:

- When the terminal used is gold plated, be sure to replace it with a gold plated terminal when making repairs.
- Do not use male and female terminals which are made of different materials from each other.



### 2. Connector Body

- Identify the part number of the corresponding terminal with wire according to the above-mentioned 1.
- Identify the part number of the connector body by picking out the correct one from the illustrations according to the number of terminals and the shape.

**B**

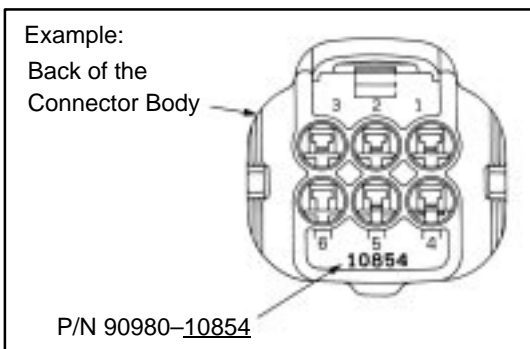
### HINT:

- If you can find no connector which matches the type you require, pick out male and female connector bodies as a set which have more terminals than you require.

For the combined terminal type connector body, pick out an appropriate connector body for each terminal being used.

### Example:

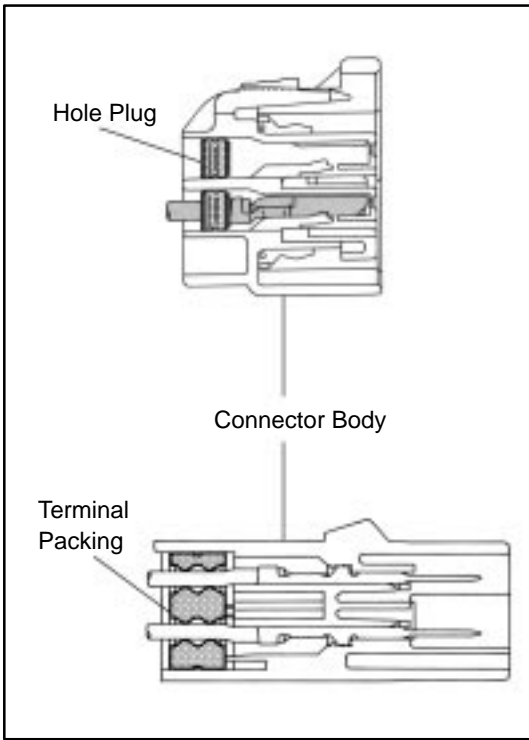
When two types of terminal are used in one connector body, pick out a male and female for two different connector bodies.



- The part number has been stamped on the back of the connector body. (This will continue to be done to new types of connector.)

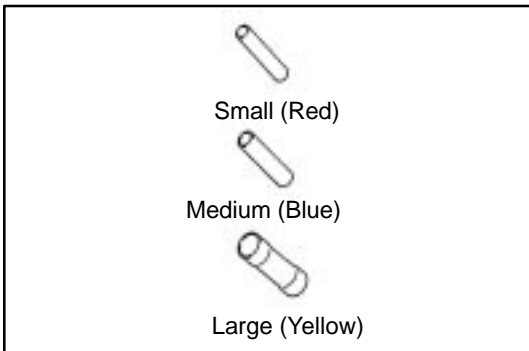
**TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT**

**B**



**3. Hole Plug/Terminal Packing**

- (a) Identify the part number of the appropriate terminal with wire/connector body from the illustrations of waterproof type connector according to the above-mentioned 1 and 2.
- (b) Identify the part number of the hole plug/terminal packing from the corresponding illustration.

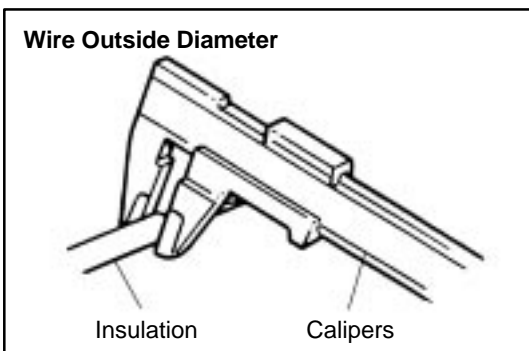


**4. Sleeve**

When connecting two wires using a sleeve, select the sleeve according to the following table.

Wire Outside Diameter	Sleeve Size (Color)
0.2–1.0 mm	Small (Red)
1.0–2.0 mm	Medium (Blue)
3.0–5.0 mm	Large (Yellow)

- (a) When size is based on the outside diameter of the wire.



**TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT**

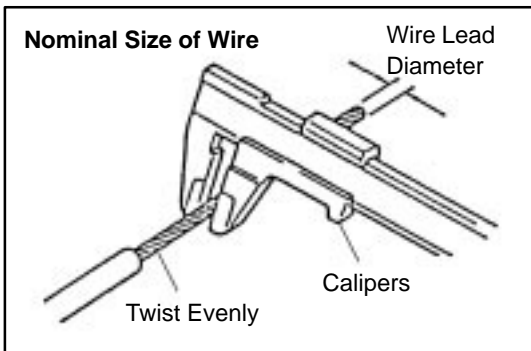
* \ *	0.3	0.5	0.85	1.25	2	3	5
0.3	S	M	M	M	M	L	L
0.5	M	M	M	M	M	L	L
0.85	M	M	M	M	L	L	L
1.25	M	M	M	M	L	L	L
2	M	M	L	L	L	L	—
3	L	L	L	L	L	L	—
5	L	L	L	L	—	—	—

\* Nominal size of the wire

(b) When size is based on the nominal size of the wire.

Sleeve size

- S : Small (Red)
- M : Medium (Blue)
- L : Large (Yellow)

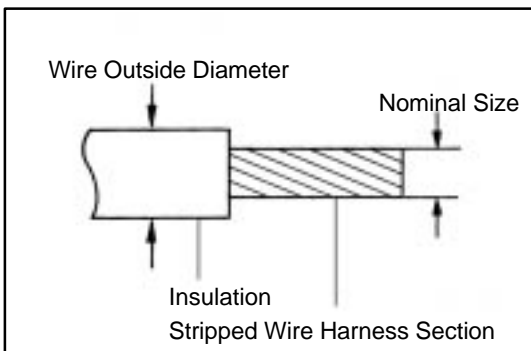


HINT: To calculate the "Nominal Size" of the wire.

Nominal size =

$$\frac{3.14 \times (\text{Diameter of stripped wire harness})^2}{4}$$

**B**

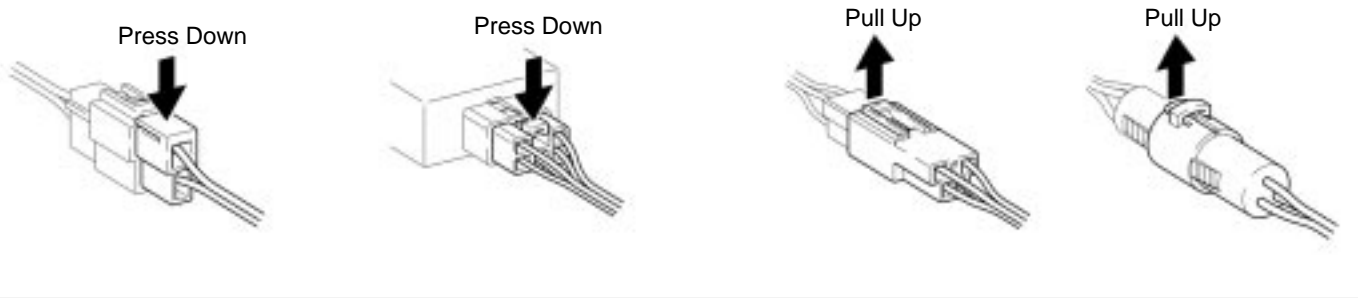
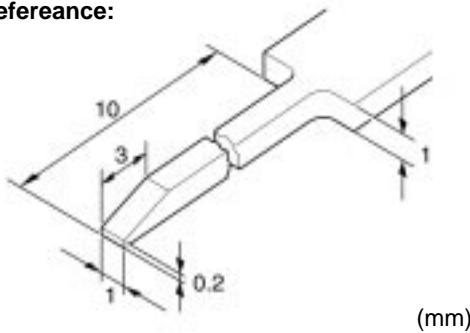


HINT: Outside Diameter and Nominal Size

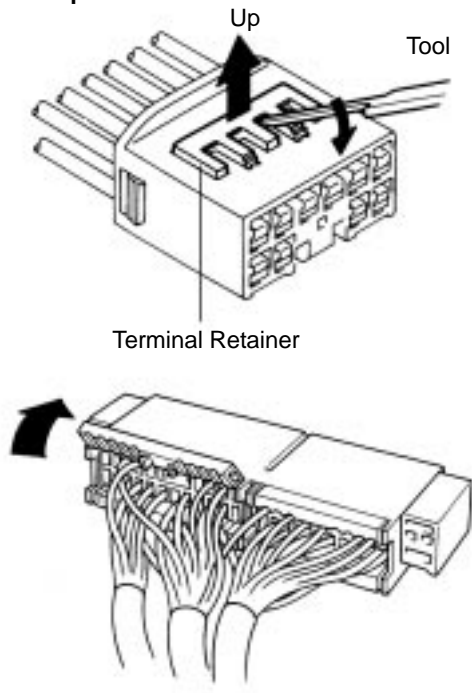
**Step 2. Disconnect the Terminal from the Connector.****1. Disconnect Connector**

To pull apart the connectors, pull on the connector itself, not the wire harness.

HINT: Check to see what kind of connector you are disconnecting before pulling apart. Press down type is mainly used.

**Example:****B****Reference:****2. Prepare the Special Tool**

HINT: To remove the terminal from the connector, please construct and use the special tool or like object shown on the left.

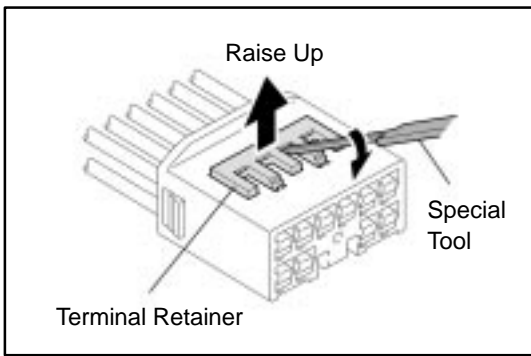
**Example:****3. Disengage the double locking device or terminal retainer.**

- (a) Locking device must be disengaged before the terminal locking clip can be released and the terminal removed from the connector.
- (b) Use a special tool or the terminal pick to unlock the double locking device.

**NOTICE:**

**Do not remove the terminal retainer from connector body.**

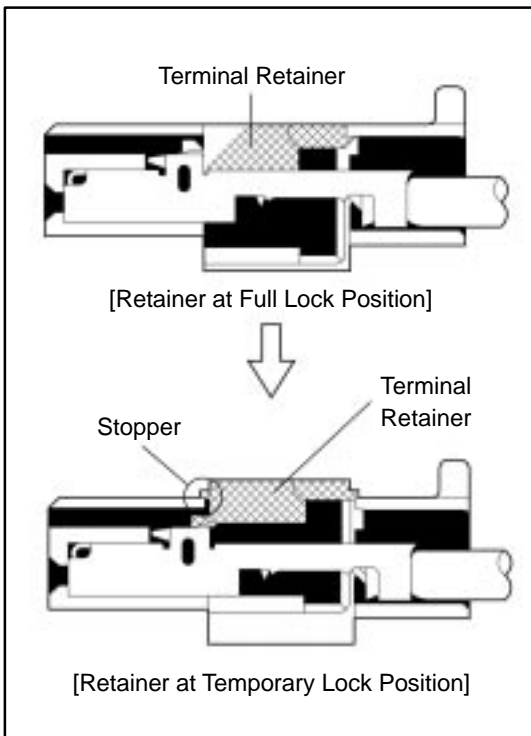
### TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT



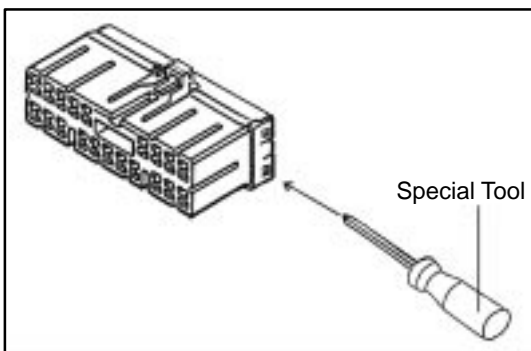
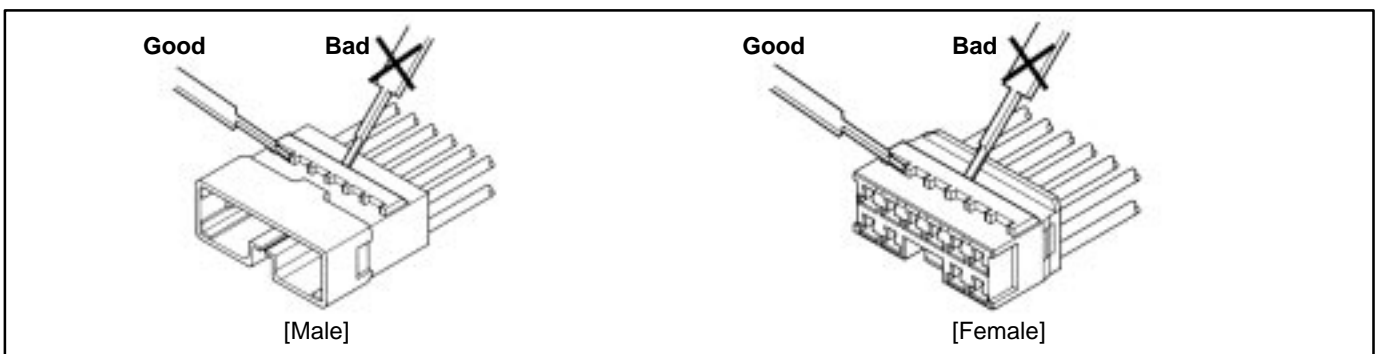
Type A (For 1.0II, 1.8, 2.3II, 4.8 and 8.0 of Non-Waterproof Type Connector)

- (1) Using the special tool, raise the retainer up to the temporary lock position.

HINT: The needle insertion position varies according to the connector's shape (number of terminals, etc.), so check the position before inserting it.

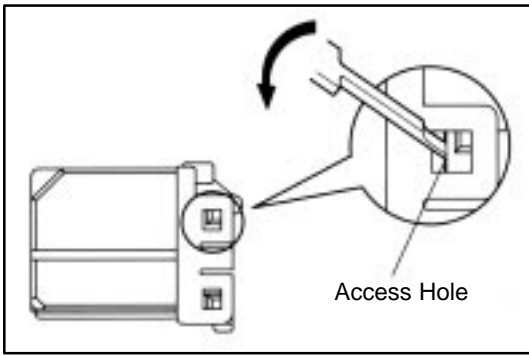


**B**

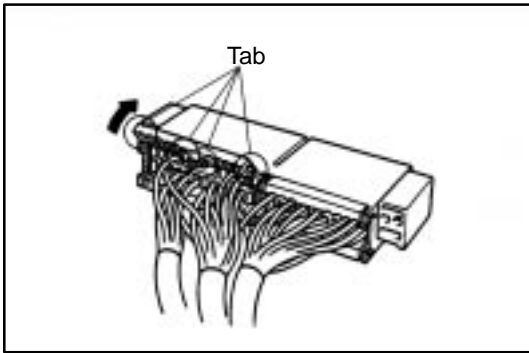


Type B (For 1.8, 1.0 and TLC of Non-Waterproof Type Connector)

TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT



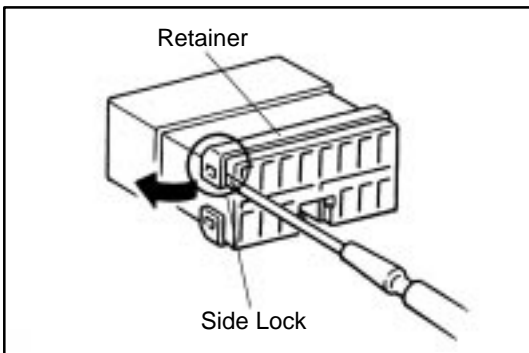
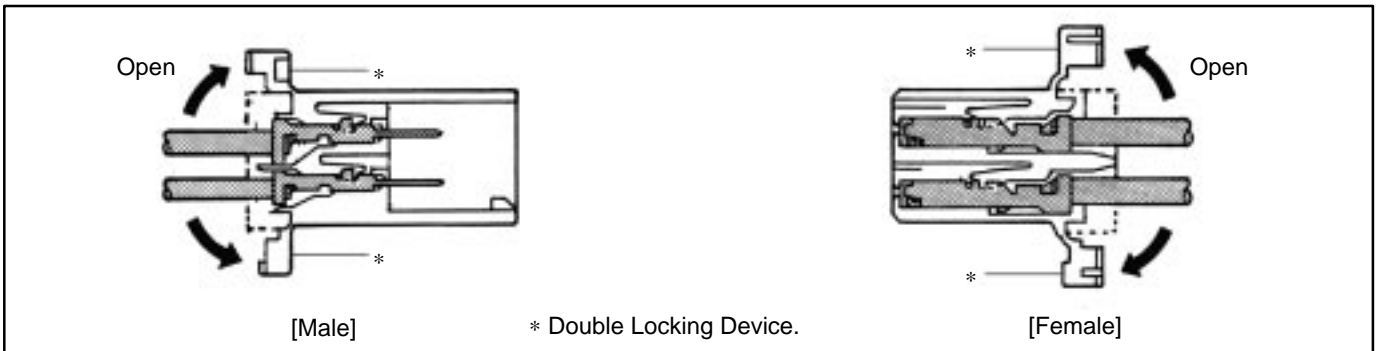
- (1) Press the special tool at a 45° angle into the locking lug access hole as shown.  
Raise the double locking device up as far as possible.



- (2) Remove the special tool and open the double locking device

**NOTICE:**  
TLC housing is not be reusable. Please replace it with the new one after replacement of the terminal.

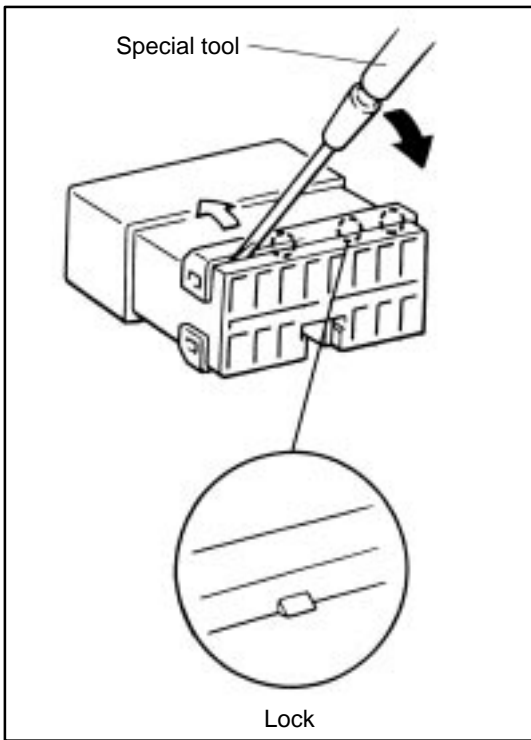
B



Type C (For TNS, FTC Type Connector)

- (1) Widen the side lock part of the retainer from side to side using the special tool.

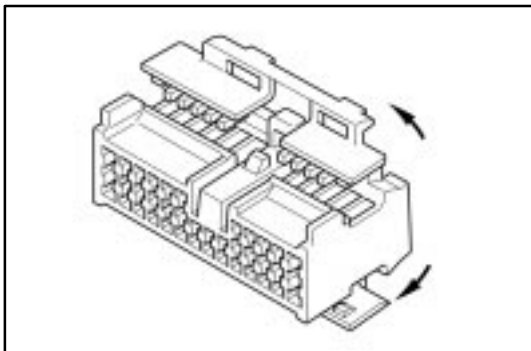
**TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT**



- (2) Inset the special tool into the chink between the retainer and the terminal itself. Then pry it to the direction of the arrow shown in the illustration and push the retainer up to release the lock.

**NOTICE:**

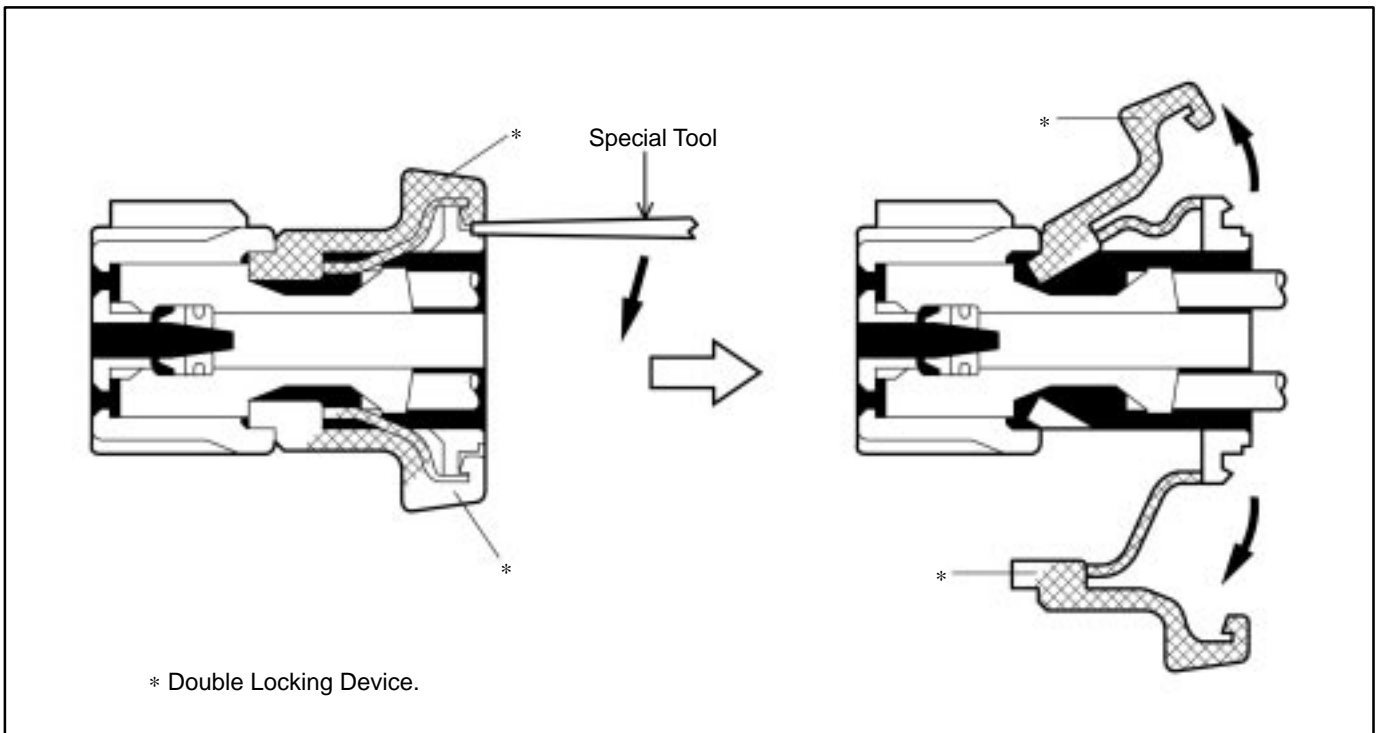
- Do not insert the special tool too much. It may cause damage on the fit section of the terminal and the wire harness.
- TNS housing is not reusable. Please replace it with the new one after replacement of the terminal.



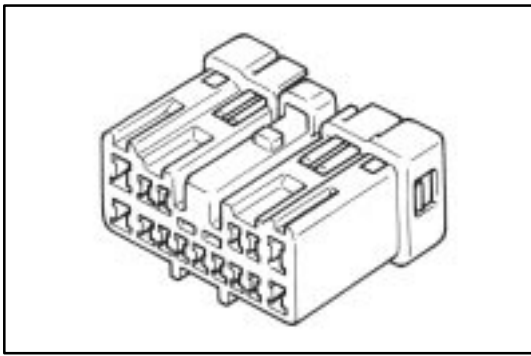
Type D (For 1.3 of Non-Waterproof Type Connector)

[Case 1]

- (1) Use the special tool to unlock the double locking device.

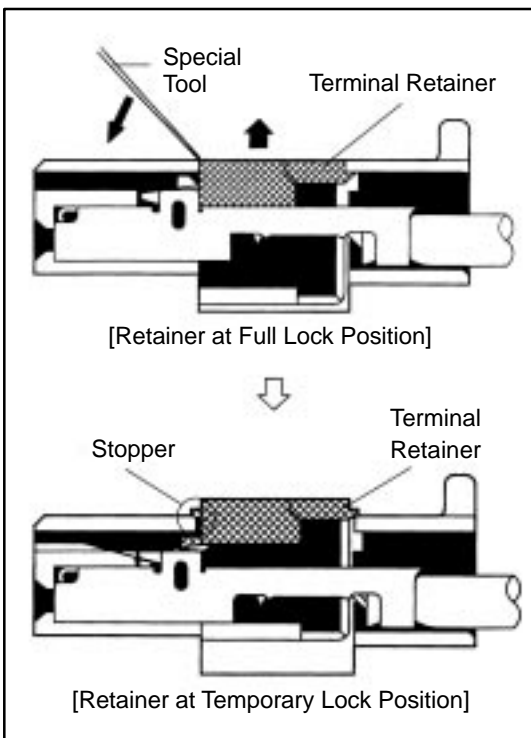
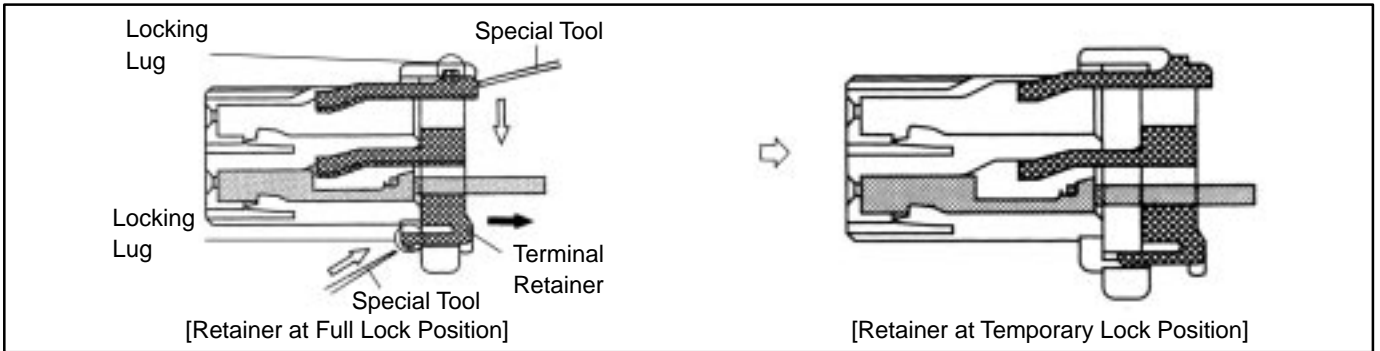


TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT



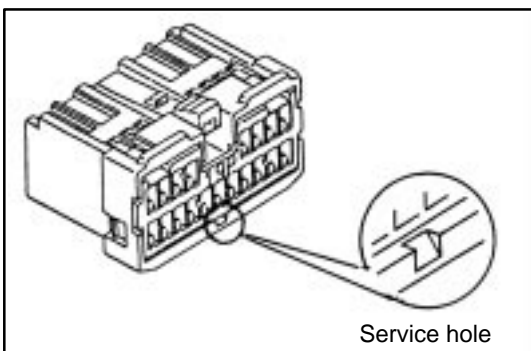
[Case 2]

- (1) Using the special tool, push the terminal retainer locking lug (clip) and pull the terminal retainer up to the temporary lock position.



[Case 3]

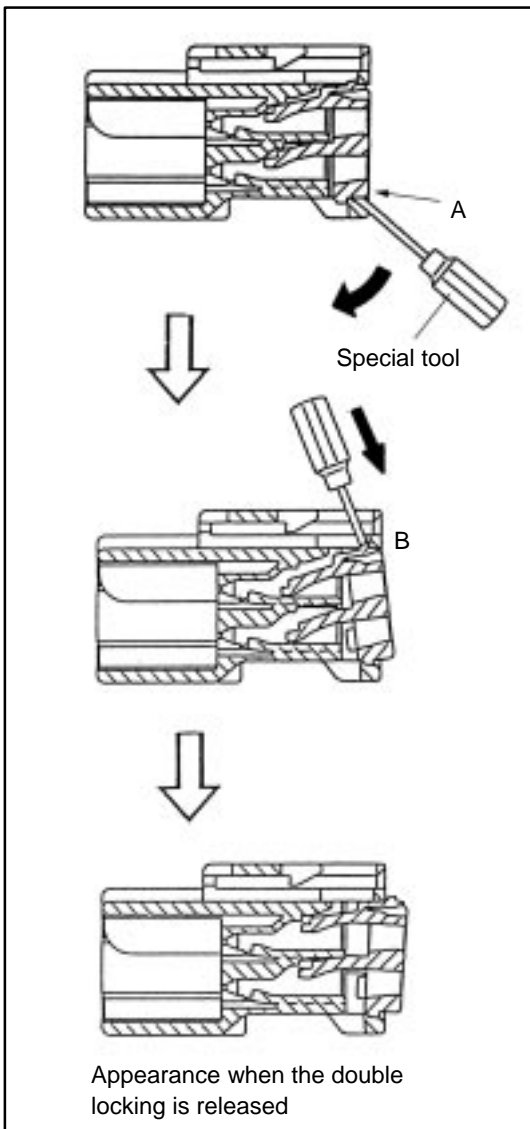
- (1) Using the special tool, raise the retainer up to the temporary lock position.



[Case 4]



## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT



- (1) Insert the special tool into the service hole and move it to the direction of the arrow to release the lock on the side A.
  
- (2) Push the lock on the side B up by the special tool and release the lock. Then pull the retainer forward.

TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT

Type E (For 1.8, 2.3, 2.3II, 4.8, 6.3 and 8.0 of Waterproof Type Connector)

HINT: Terminal retainer color is different according to connector body.

Example:

Terminal Retainer : Connector body

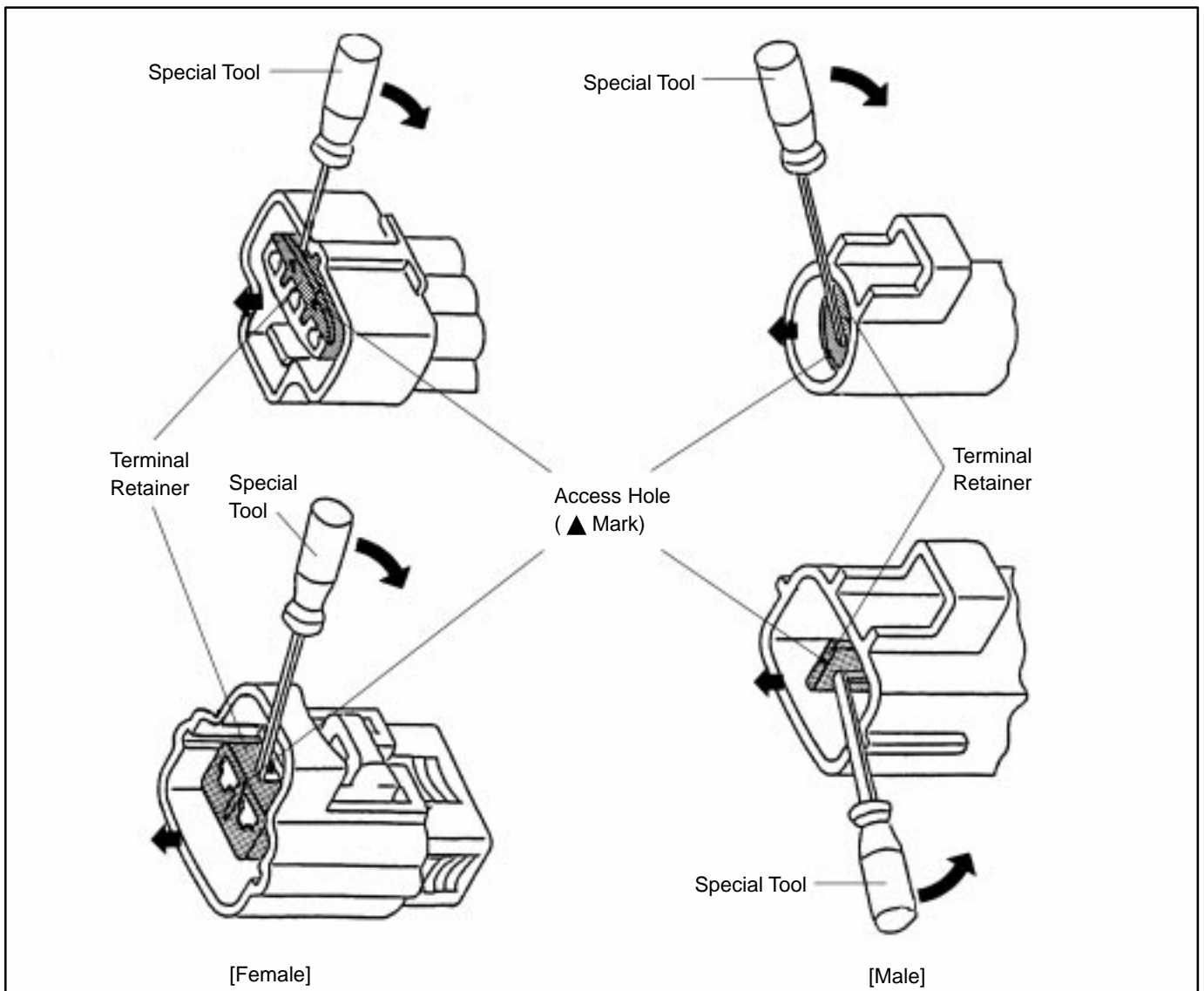
Black or White : Gray

Black or White : Dark Gray

Gray or White : Black

[Case 1]

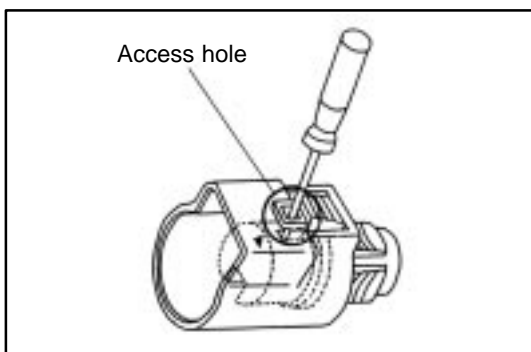
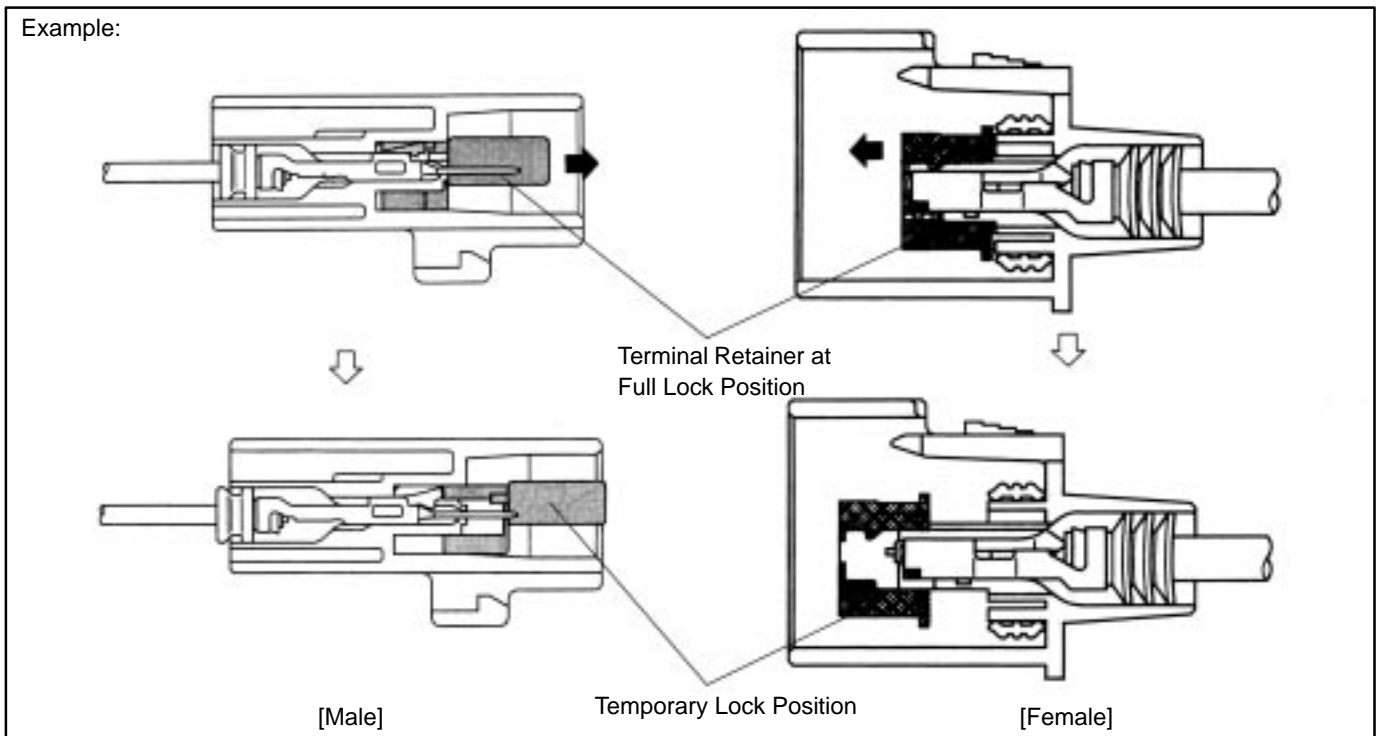
Type where terminal retainer is pulled up to the temporary lock position (Pull Type).



## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT

- (1) Insert the special tool into the terminal retainer access hole (▲ Mark) and pull the terminal retainer up to the temporary lock position.

HINT: The needle insertion position varies according to the connector's shape (Number of terminals etc.), so check the position before inserting it.



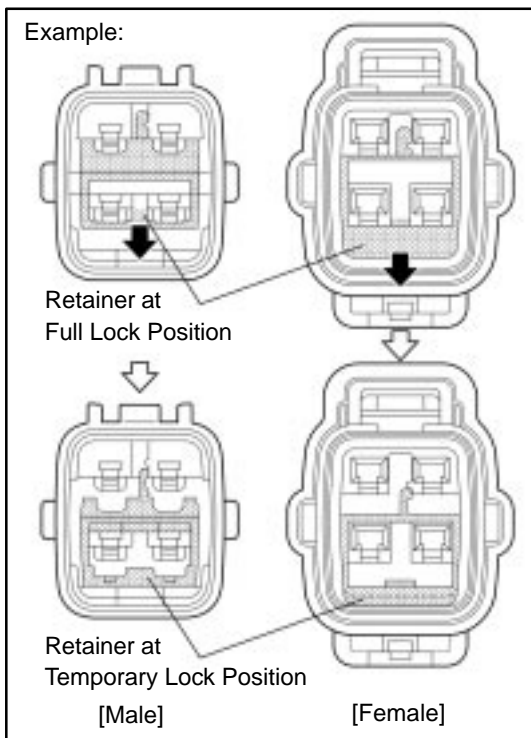
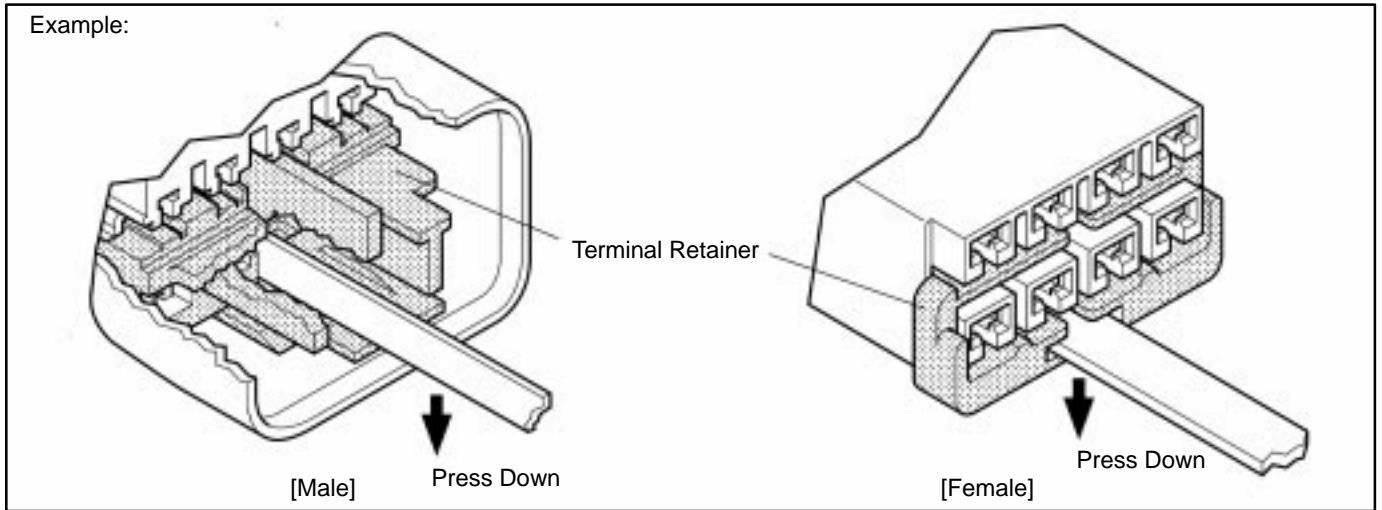
HINT: In some cases insert the special tool from the access hole on the flank of the housing.

TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT

[Case 2]

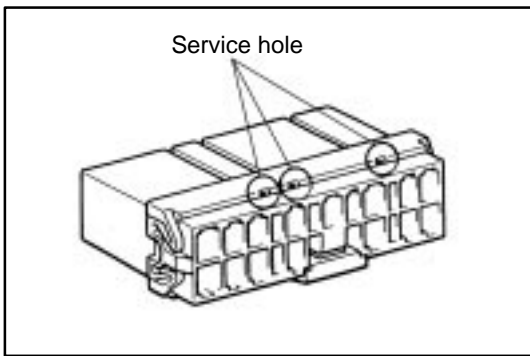
Type which cannot be pulled as far as Power Lock

HINT: There are few cases of this type of connector



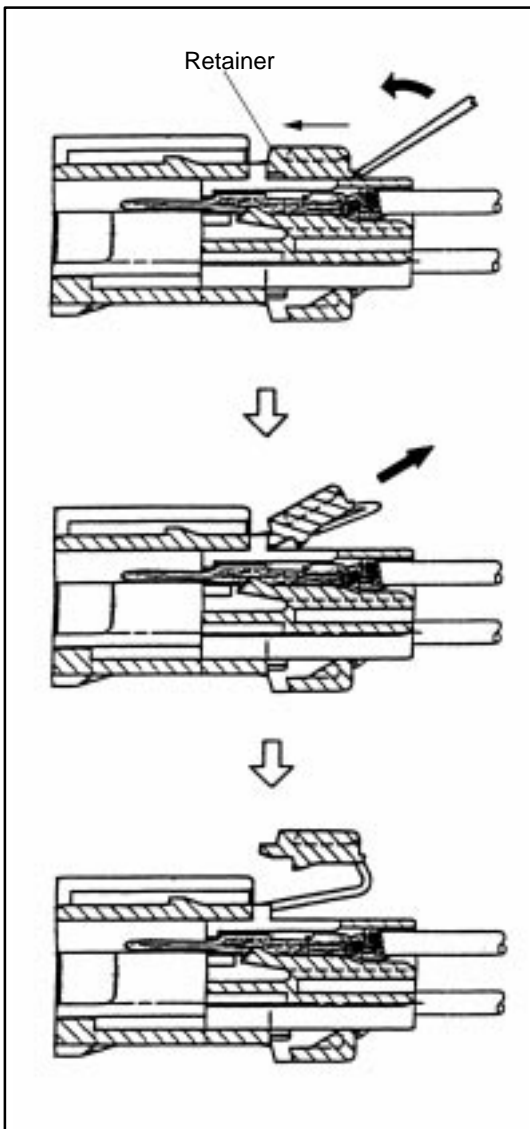
- (1) Insert the tool straight into the access hole of terminal retainer as shown.  
Push the terminal retainer down to the temporary lock position.

## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT



### Type F (For C-Type Connector)

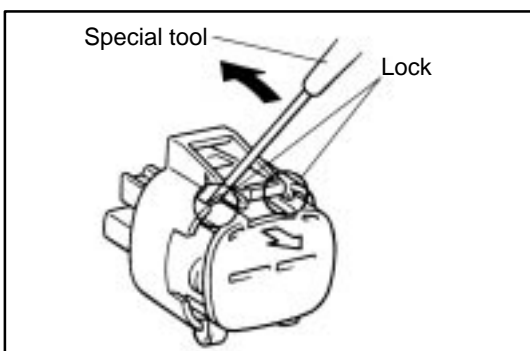
- (1) Insert the special tool into the service hole.



- (2) Move the special tool to the direction of the arrow and release the lock.

HINT: Lift the retainer up after moving it to the direction of the thin arrow shown in the illustration.

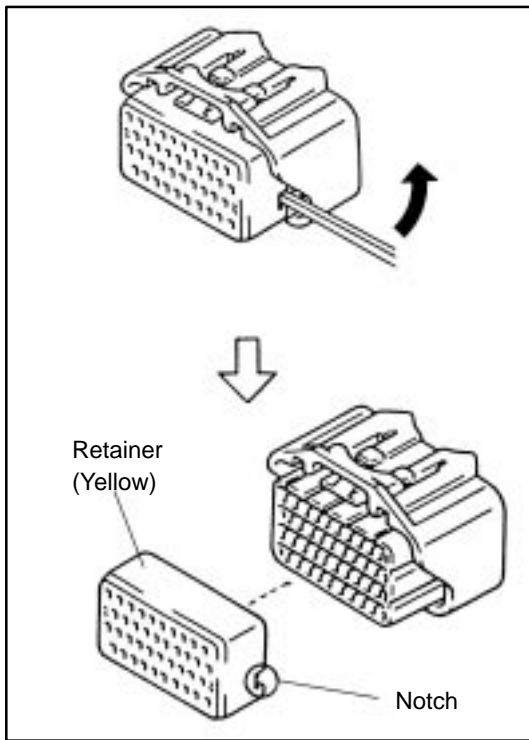
- (3) Pull the retainer forward by hand and remove the retainer from the housing.



### Type G

- Insert the special tool into the position shown in the illustration. Pry it to the direction of the arrow and push the lock up to release it.

## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT



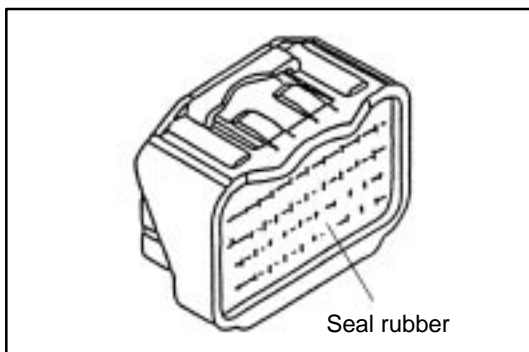
### Type H (For 1.0II Type Connector)

- (1) Move the special tool into the notch of the retainer to the direction of the arrow with the edge of the housing as the fulcrum. Then pull the retainer out.

**NOTICE:**

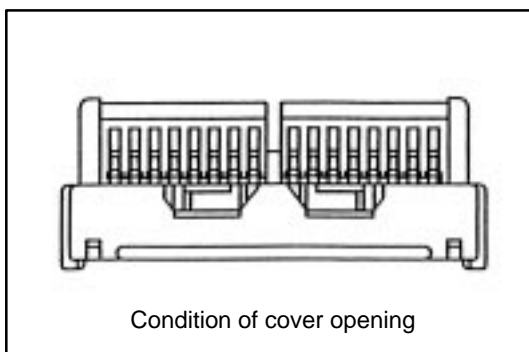
**Do not insert the special tool into areas except notches. (This may damage the seal ring that is attached behind the retainer.)**

- (2) As same as the procedure (1), pull the retainer straight out using hand after releasing the lock on the other side.



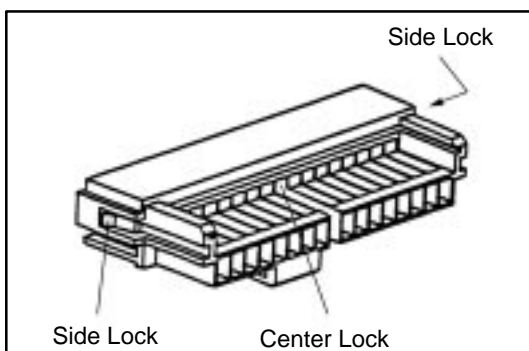
**NOTICE:**

- Do not remove the seal rubber when pulling the terminal out.
- If the seal rubber is peeled off when pulling the terminal out, press it down to stick it to the original condition.
- Be sure and not fit the connector when the retainer is not installed.



### Type I (For SFPC Type Connector)

- (1) Open the cover (white)

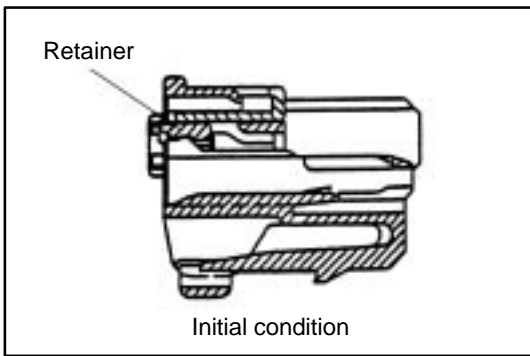


- (2) Remove the side lock of the retainer. (One side)
- (3) Remove the center lock of the housing.
- (4) Remove the side lock of the retainer. (The other side)

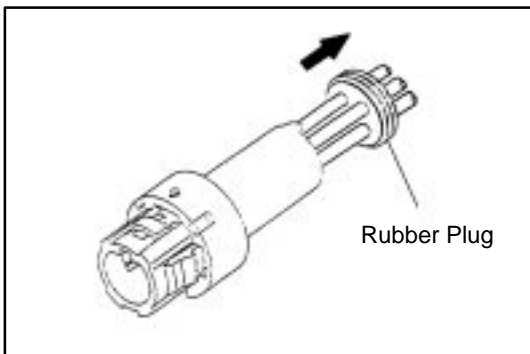
**NOTICE:**

- Following the above order is not required.
- No center lock on the housing with ten poles.

TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT

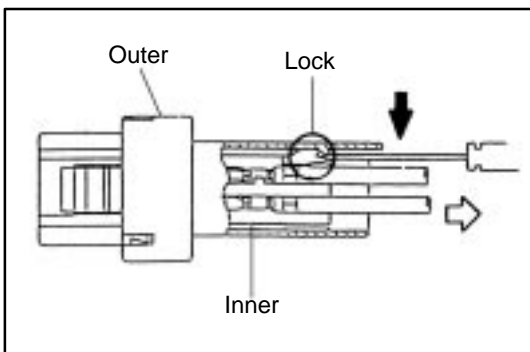


- (5) Move the retainer until it becomes the initial condition.

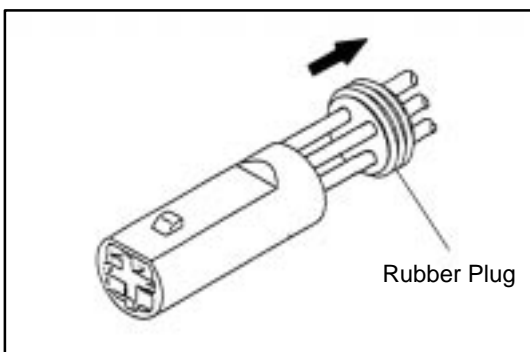


Type J  
[Male]

- (1) Remove the rubber plug.

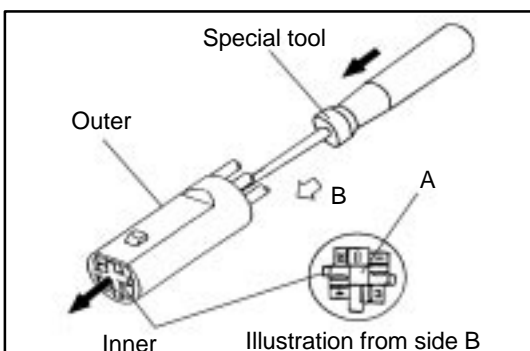


- (2) Push the lock of the inner using the special tool.
- (3) Pull the wire to the direction of the arrow pushing the lock up and remove the inner from the outer.



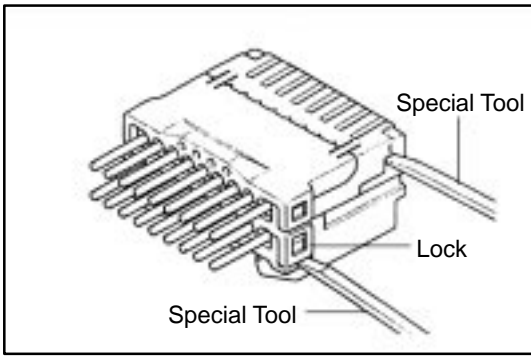
[Female]

- (1) Remove the rubber plug.



- (2) Insert the special tool into the outer shown in the illustration. Then push the area A of the inner and remove the inner from the outer.

**TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT**



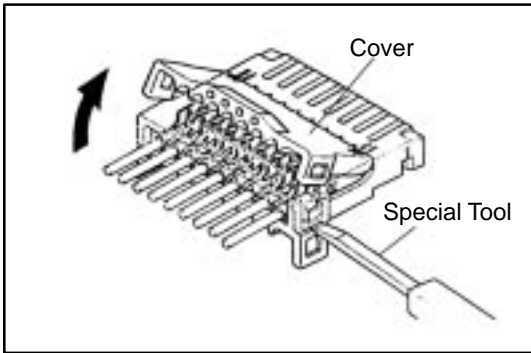
Type J (For Insulation Displacement Connector)

(1) Separate Connector

Using a special tool, release the lock and separate the connector into 2.

**NOTICE:**

**Do not apply too much force to the lock arm.**

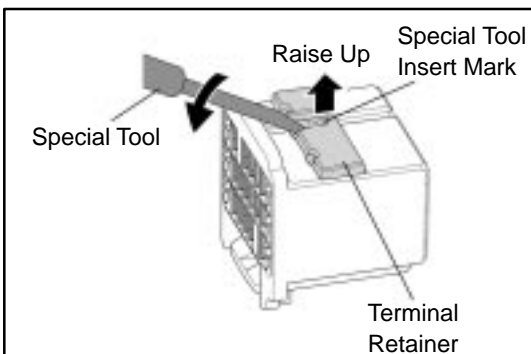


(2) w/ Cover : Open Connector Cover

Using a special tool, release the lock and open the cover.

**NOTICE:**

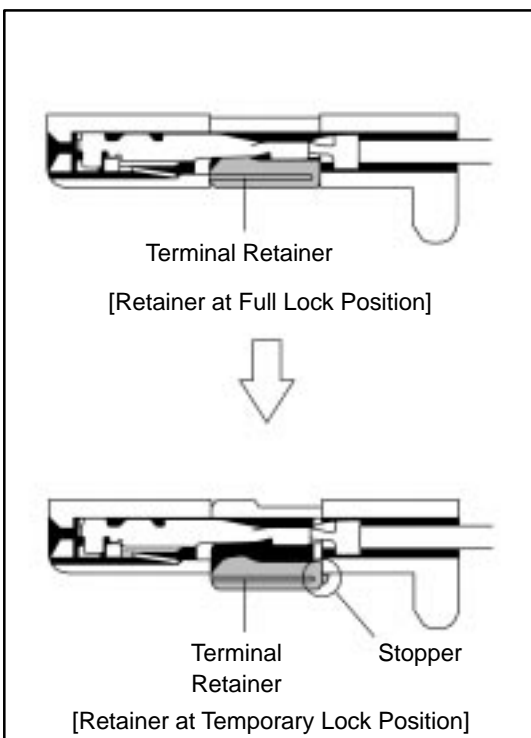
**Do not apply too much force to the lock arm.**



Type K (0.64 Type Connector)

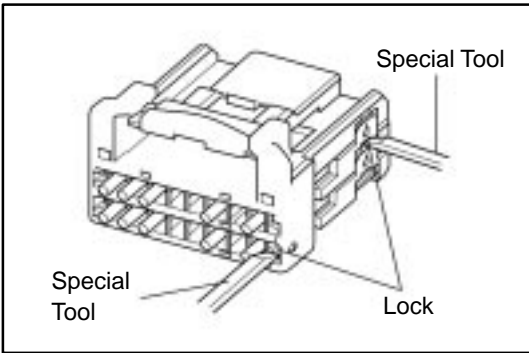
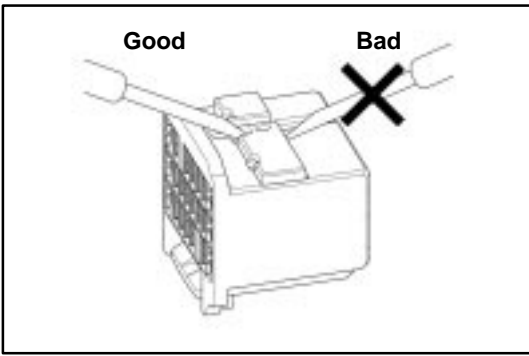
(1) Using the special tool, raise the retainer up to the temporary lock position.

**HINT:** The needle insertion position varies according to the connector's shape (number of terminals, etc.), so check the position before inserting it.





TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT



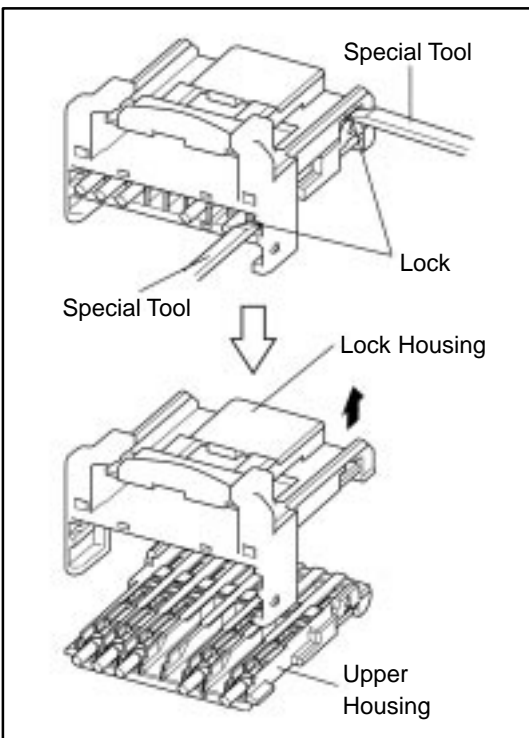
Type L (0.64 of Insulation Displacement Connector (IDC) Type)

(1) Remove the Lower Housing

Using a special tool, release the lock and remove the lower housing.

**NOTICE:**

- Do not apply too much force to the lock arm.
- Mark the upper housing and lower housing to prevent mistakes when putting them together.

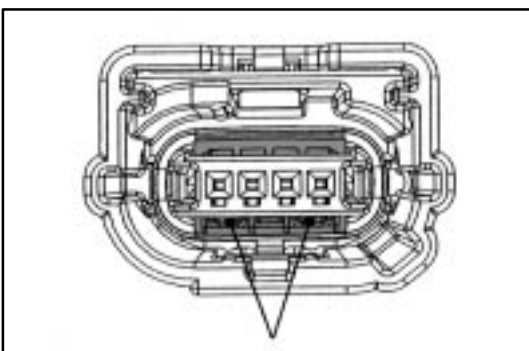


(2) Remove the Upper Housing

Using a special tool, release the lock and remove the upper housing from the lock housing.

**NOTICE:**

- Do not apply too much force to the lock arm.
- Mark the upper housing and lower housing to prevent mistakes when putting them together.

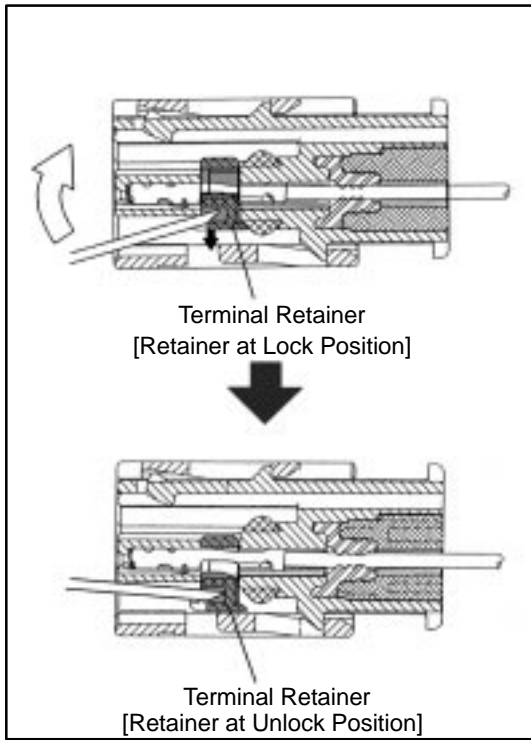


Type M (0.64 of Splash Proof Connector)

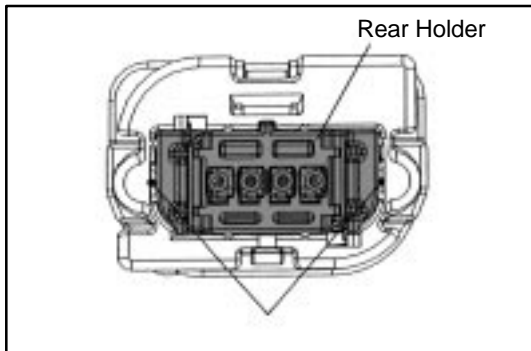
(1) Release Terminal retainer.

Insert Special Tool at the location shown in the figure left.

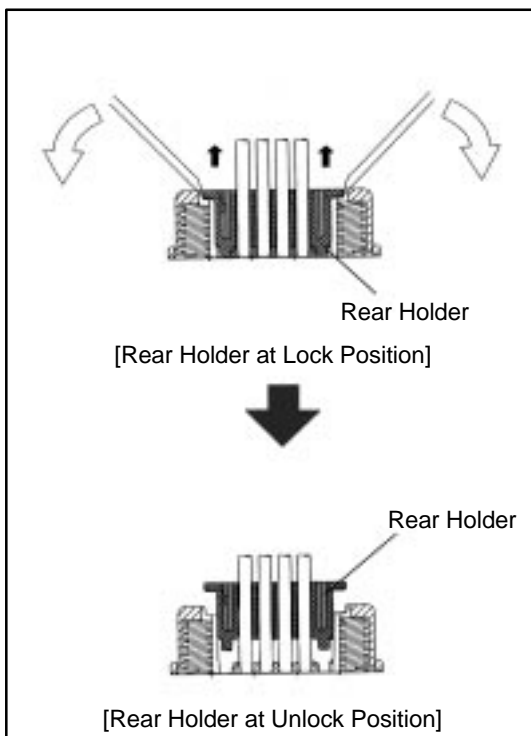
TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT



Move Special Tool in the direction of arrow.



- (2) Release Rear holder.  
Insert Special Tool at the location shown in the figure left.

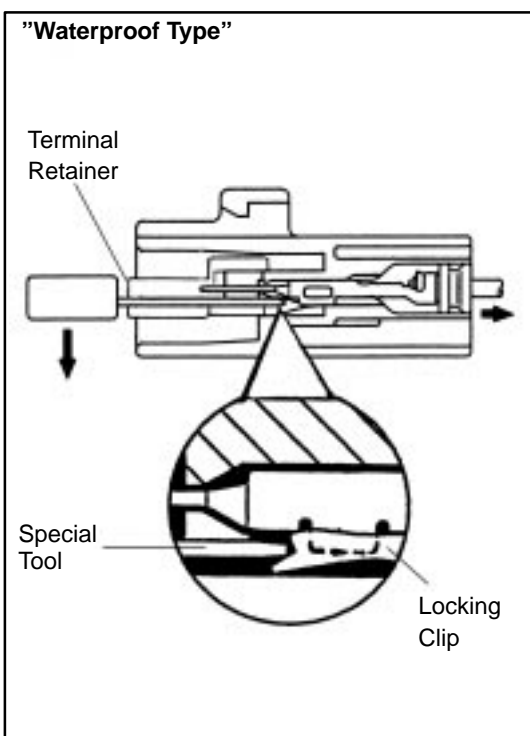
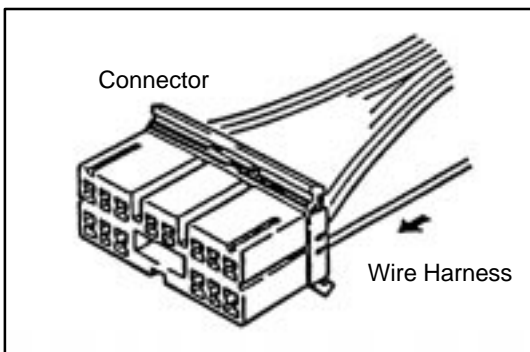
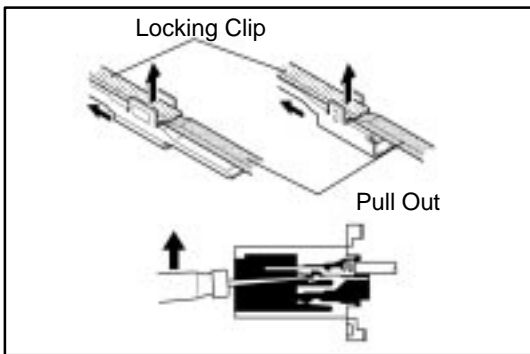
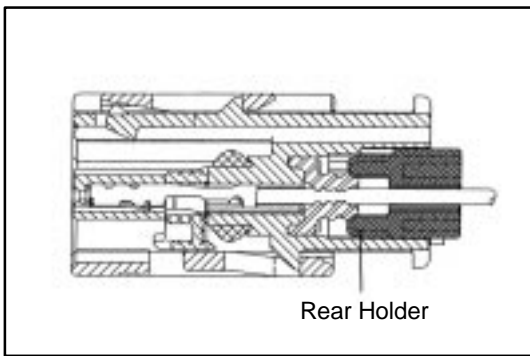


Move Special Tool in the direction of arrow.

**NOTICE:**

- Do not remove Rear holder from Connector housing.
- If Rear holder completely comes off the housing, replace Connector with a new one.

## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT



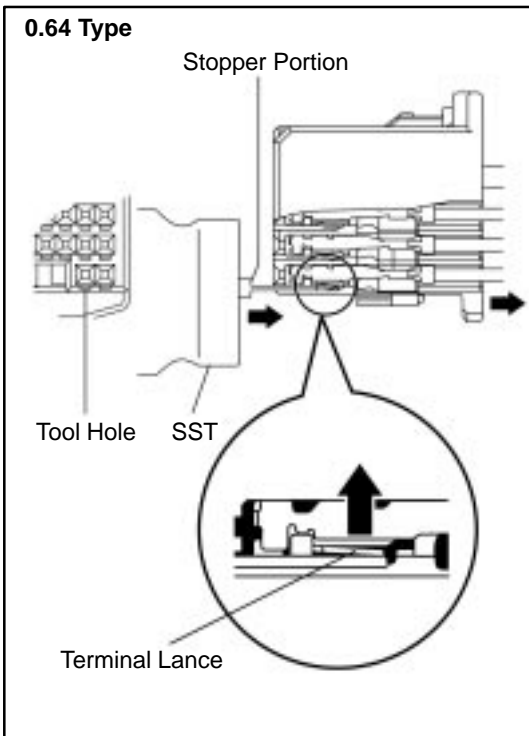
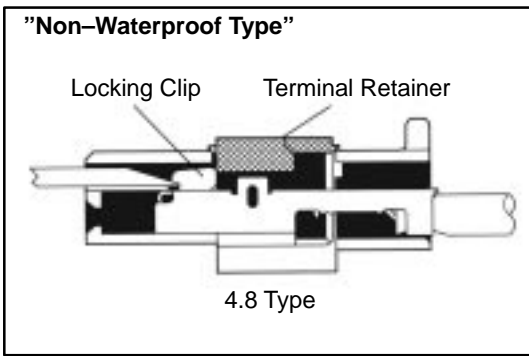
### 4. Disconnect Terminal from Connector

- (a) Determine the primary locking system from the charts.
  1. Lock Located on terminal
  2. Lock Located on connector
  3. Method of entry and operation
  
- (b) Push the terminal gently into the connector and hold it in this position.
  
- (c) Insert the special tool into the connector in the direction shown in the chart.
- (d) Move the locking clip to the unlock position and hold it there.
 

NOTE: Do not apply excessive force to the terminal. Do not pry on the terminal with the special tool.
- (e) Carefully withdraw the terminal from the connector by pulling the lead toward the rear of the connector.
 

NOTE: Do not use too much force. If the terminal does not come out easily, repeat steps (a) through (e).

TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT



- (f) Insert the SST into the connector in the direction shown in the chart.
- (g) Insert the SST fully to the tool hole, and push the terminal lance.

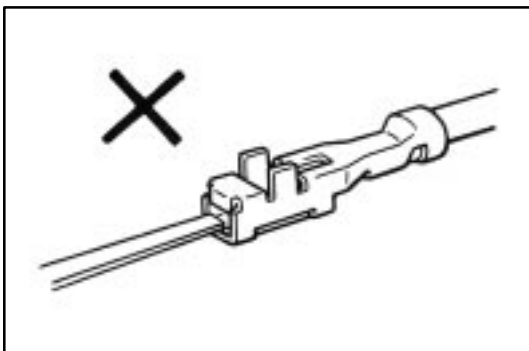
**NOTICE:**

- The terminal has a lance shape, therefore, the housing may be damaged and the terminal may get stuck if forcibly pried by wires etc.
- Insert the SST so that the stopper portion surface is facing up.

- (h) Carefully withdraw the terminal from the connector by pulling the lead toward the rear of the connector.

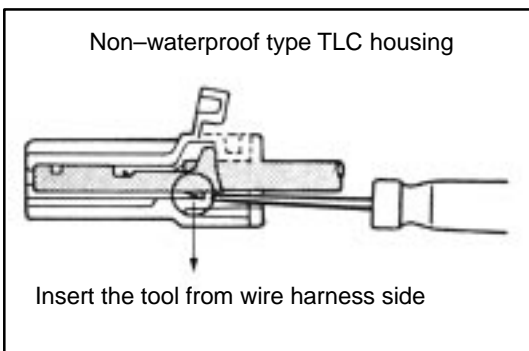
**NOTICE:**

Removal of the terminal from housing cavity will cause damage to the wire seal section, deteriorating waterproofing performance. Replace the connector with a new one.



**NOTICE:**

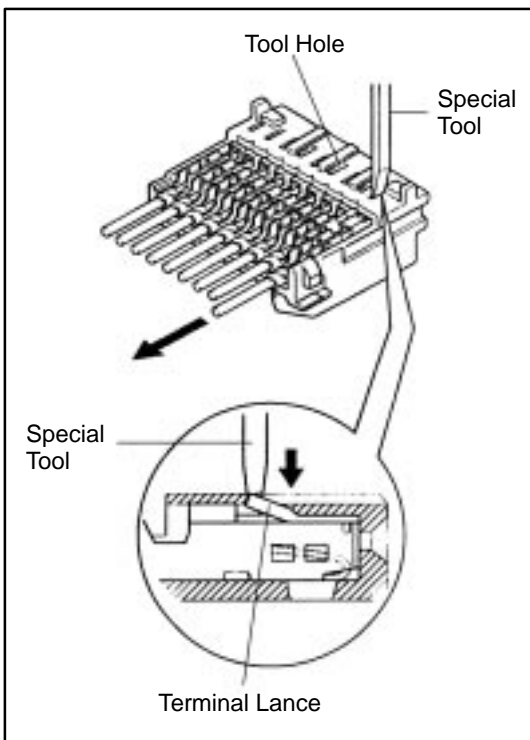
Do not insert the special tool into the female terminal box. If you do so, replace the terminal with the new one whether the terminal is broken or not.



**NOTICE:**

As for Non-waterproof type TLC housing, insert the special tool into the housing from wire harness side.

## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT

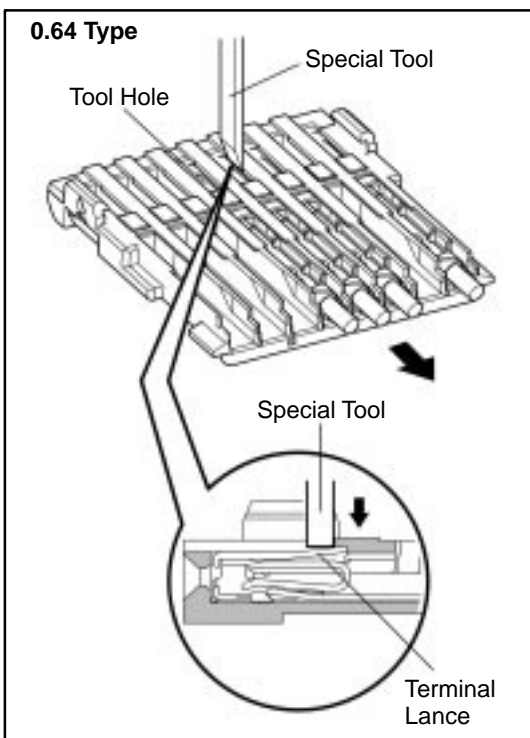


### Insulation Displacement Connector Type

- (a) Using a special tool, push the terminal lance from the tool hole.
- (b) Carefully withdraw the terminal from the connector by pulling the lead toward the rear of the connector.

#### NOTICE:

- Do not use too much force. If the terminal does not come out easily, repeat step (a).
- Always change the wire with the repair wire, in accordance with page B-27.

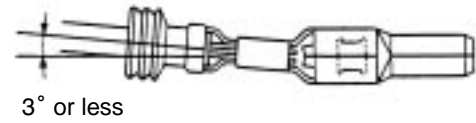


**Terminal Deformation**

## (1) Terminal Bending in Vertical Direction



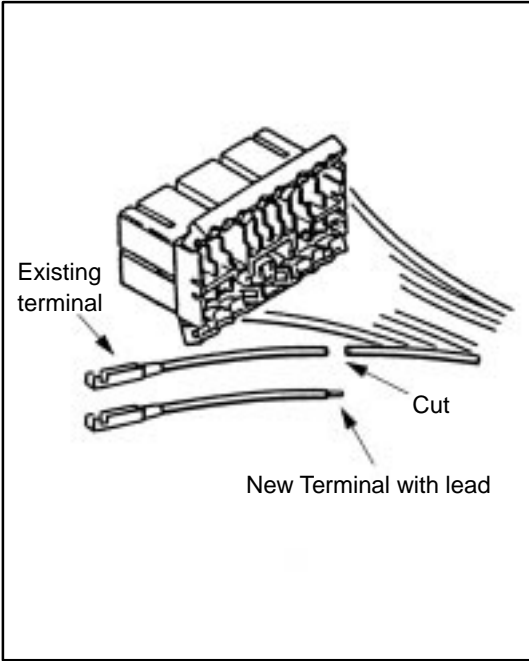
## (2) Terminal Bending in Horizontal Direction

**5. Inspect the terminal and the connector for damage.****NOTE:**

- The locking clip is easily damaged.
- Do not reuse the damaged part.

TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT

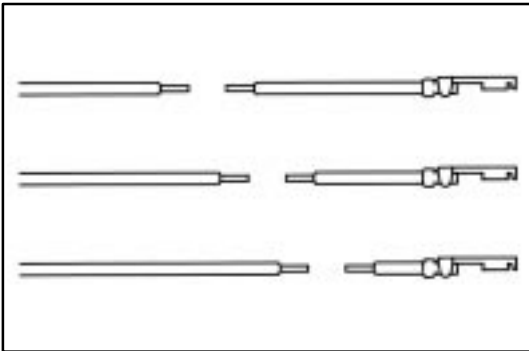
Step 3. Replace the terminal.



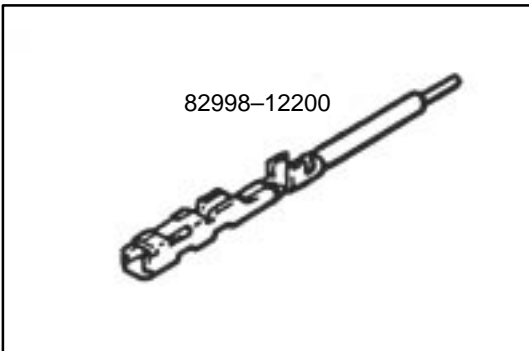
1. Cut the Old Terminal from the Harness.

- (a) Use the new wire lead as a guide for proper length.  
NOTE: If the length of wire removed is not approximately the same length as the new piece, the following problems may develop:
  - Too short — tension on the terminal, splice, or the connector, causing an open circuit.
  - Too long — excessive wire near the connector, may get pinched or abraded, causing a short circuit.

HINT: When connecting a wire harness at three or more spots to the same connector, cut the wire harness as shown on the left.

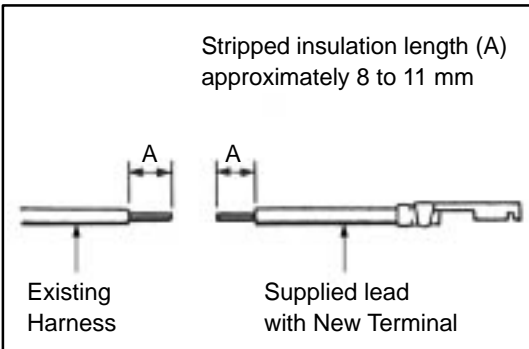


2. Select the correct replacement terminal with lead, from the supply parts.

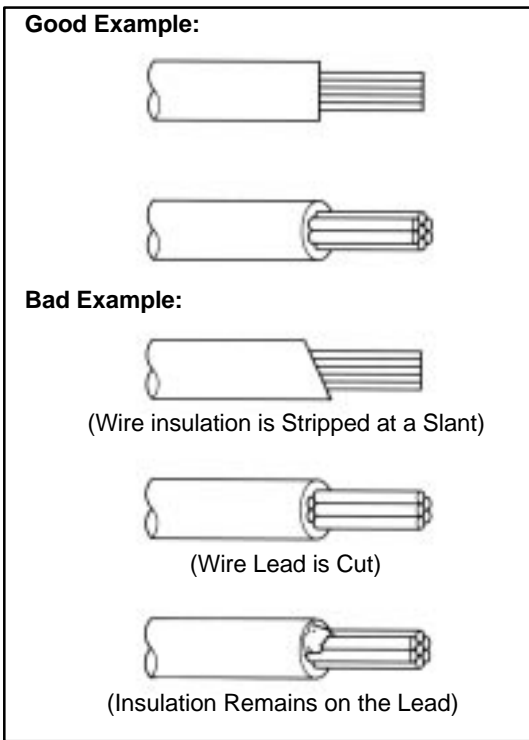


3. Strip insulation from wire on the harness and replacement terminal lead.

Start stripping at least 8 mm (0.31 in.) to 11 mm (0.43 in.) away from the end of the existing harness at vehicle side and also from the end of the repair wire.



TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT

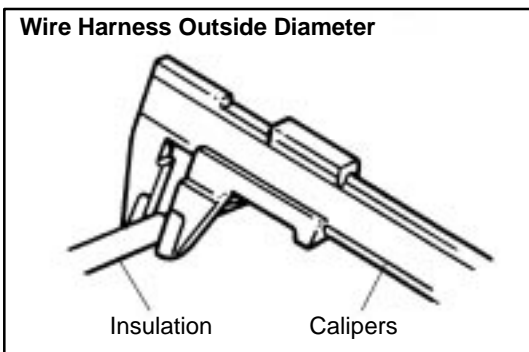


**NOTICE:**

Take care not to damage the wire when stripping the wire harness lead. After finishing the operation, visually inspect the wire. If there is any damage, perform the operation again.

**HINT:**

If the wire size is not known, start with largest stripper hole and work down until a clean strip of the insulation is removed without nicking or cutting the wire lead.



**4. Select Correct Size of Sleeve from the Supply Parts.**

(a) Measure the diameter of wire by using the measuring device as following:

- When size is based on the outside diameter of the wire harness

Measure the outside diameter of the wire harness by placing a measuring device, such as a micrometer or Vernier Caliper, across the diameter of the insulation on the lead and taking a reading.

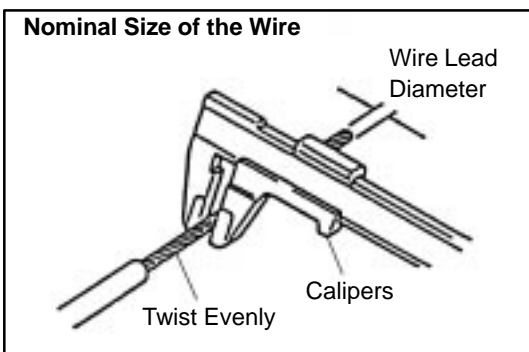
- When size is based on the nominal size of the wire lead.

Measure the diameter of the wire lead by placing a measuring device, such as a micrometer or Vernier Caliper, across the diameter of the wire lead and taking a reading.

**HINT:**

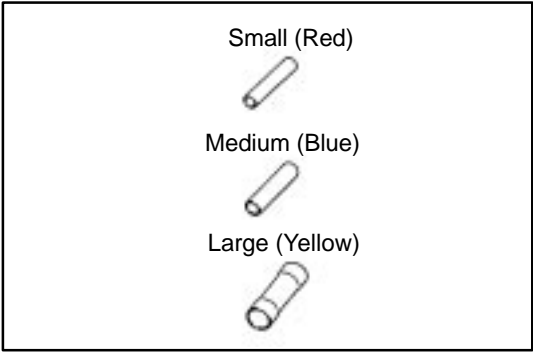
To calculate the "nominal size" of wire

$$\text{Nominal size} = \frac{3.14 \times (\text{Diameter of wire lead})^2}{4}$$





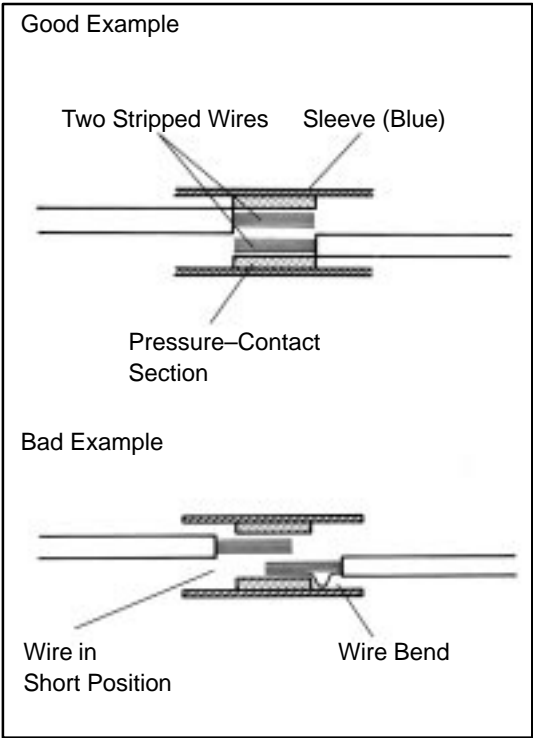
**TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT**



(b) Use the table to determine proper sleeve size

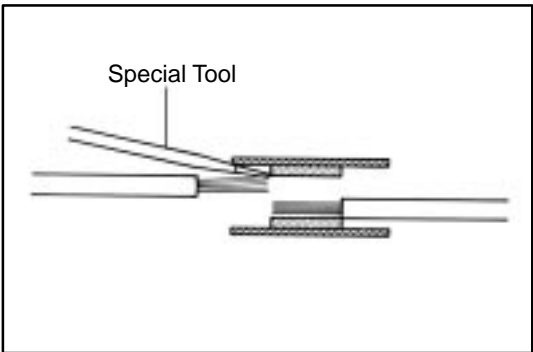
	<b>Part Number</b>	<b>Nominal size of wire (Outside Diameter of wire)</b>
Small	82999-12010	0.3 or less (1.0 – 0.2 mm)
Medium	82999-12020	0.5 – 1.25 (2.0 – 1.0 mm)
Large	82999-12030	2 or more (5.0 – 3.0 mm)

NOTE: For details, refer to sleeve size table on item 4 of STEP 1



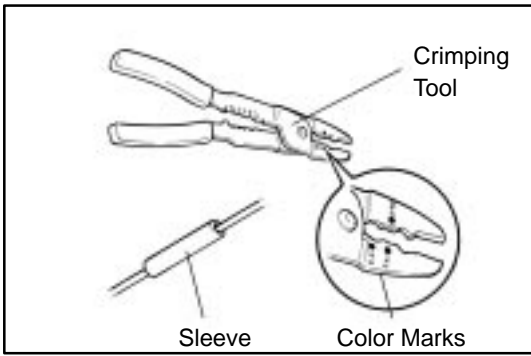
**5. Crimp the Replacement Terminal Lead to the Harness Lead.**

(a) Overlap the two stripped wire ends inside the sleeve as illustrated on the left.



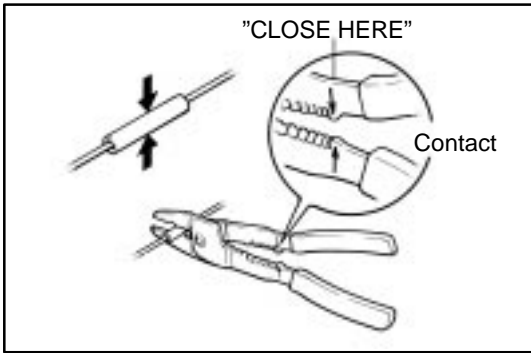
HINT: You might find it easier if you use a miniature special tool as a guide as you insert wires into the sleeve.

**TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT**



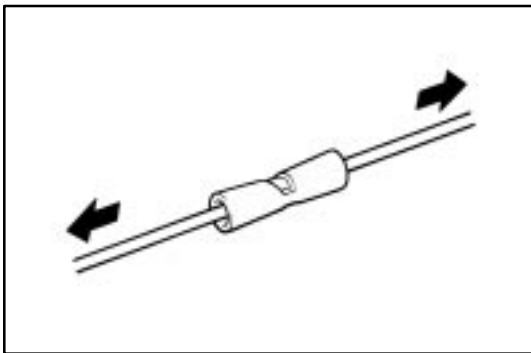
- (b) The crimping tool (AMP Part No. 169060) has color marks on it. Place the sleeve in the correct section of the tool according to the color of the sleeve itself.

HINT: For the crimping tool, AMP "Part No. 169060" is convenient to use.



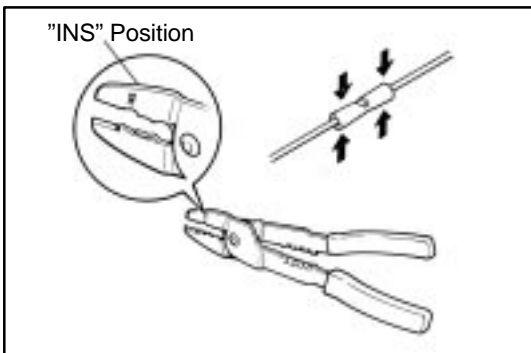
- (c) With the center of the sleeve correctly placed between the crimping jaws, squeeze the crimping tool until either end comes into contact at the section marked by "CLOSE HERE".

HINT: Check to see that the sleeve and wires are still in the correct position before closing the crimping tool ends with steady pressure.



- (d) Pull the joined wires to either end. Make sure that they are joined firmly by the sleeve.

**NOTICE:**  
If the joined wires come loose the splice is defective, so replace the sleeve and repeat the procedure.

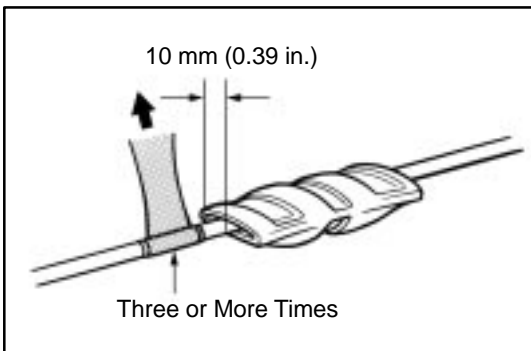


- (e) Crimp both ends of the sleeve with the crimping tool at the "INS" position.

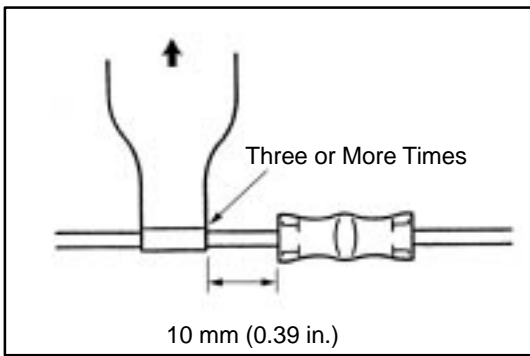
**6. Protect Joined Section**

Wrap silicon tape around the joins to protect them from moisture.

NOTE: This job is required in repairs of the engine compartment, under the floor and other moisture entry positions.

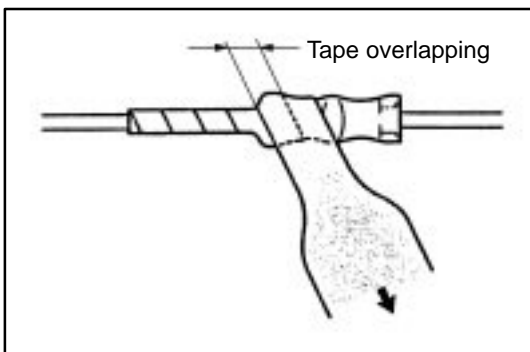


## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT

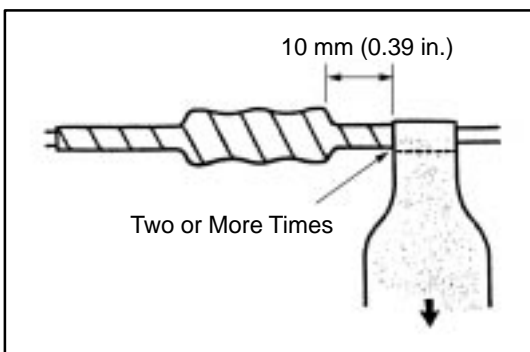


### HINT:

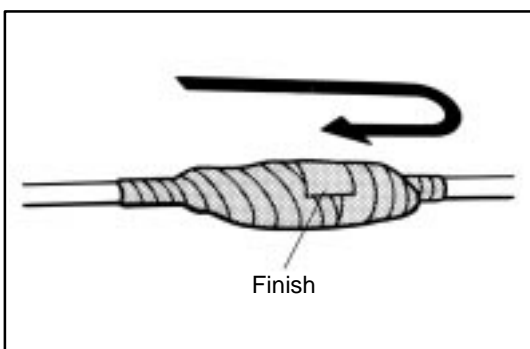
- Before starting the operation, thoroughly wipe dirt and grease off the sections to be joined.
  - If the adhesive surfaces of two tapes come in contact they will stick together and will not come apart, so do not remove the backing film except when using the tape.
  - Do not let oil and dust, etc. get on the tape surface.
- (a) Ready about 100 mm (3.94 in.) of silicon tape (Part No. 08231-00045) and peel off the film.
  - (b) Stretch the silicon tape until its width is reduced by half.
  - (c) About 10 mm (0.39 in.) from the end of the sleeve, wrap the silicon tape around the sleeve three or more times while stretching the tape.



- (d) Wrap the remaining part of the sleeve with half of the tape overlapping at each turn.

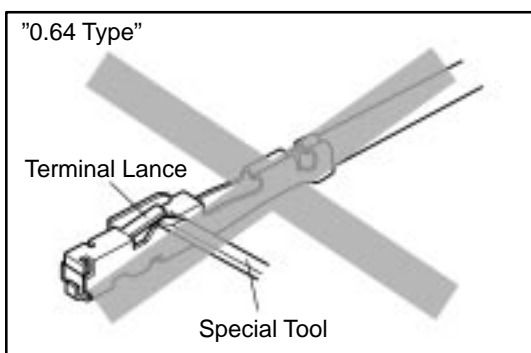
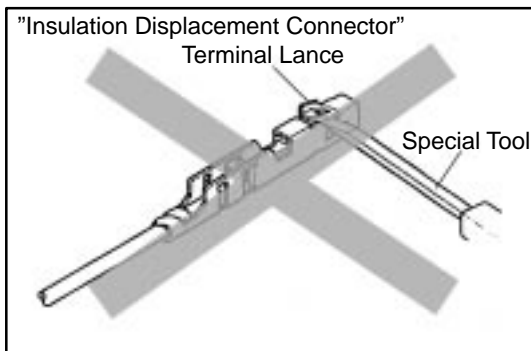
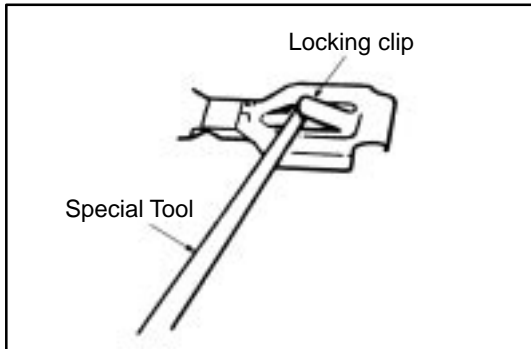
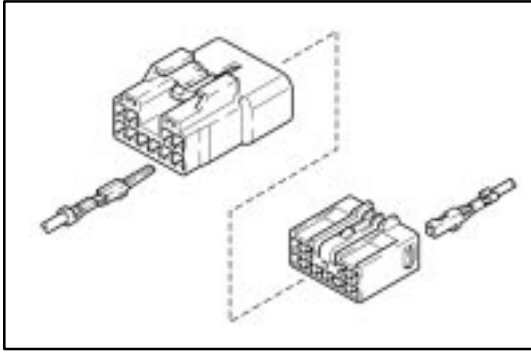


- (e) Firmly wrap the tape two times or more about 10 mm (0.39 in.) from the other end of the sleeve, then wrap the tape back towards the start again and firmly finish winding the tape around the center of the sleeve.



## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT

### Step 4. Install the terminal into the connector.



#### HINT:

- (a) Make sure the terminal is positioned correctly.
- (b) Insert the terminal until the locking clip locks firmly.
- (c) Insert the terminal with terminal retainer in the temporary lock position, if equipped.

**NOTE:** If reusing a terminal, check that the locking clip is still in good condition and in the proper position.

- (a) If it is on the terminal and not in the proper position, use the special tool to gently bend the locking clip back to the original shape.
- (b) Check that the other parts of the terminal are in their original shape.

#### NOTICE:

**Do not readjust or reuse the terminal lance of the insulation displacement connector type terminal. Always change the wire with the repair wire.**

#### NOTICE:

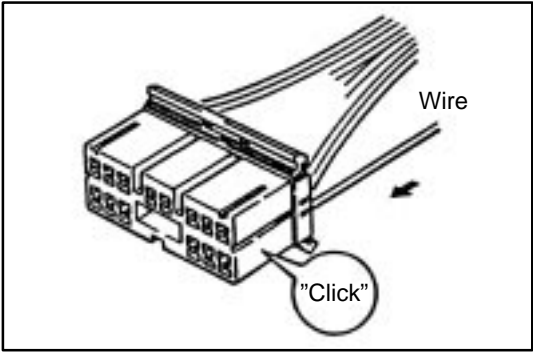
**As for 0.64 type terminal, do not adjust the terminal lance with the special tool.**

### Splash Proof Type Connector

#### NOTICE:

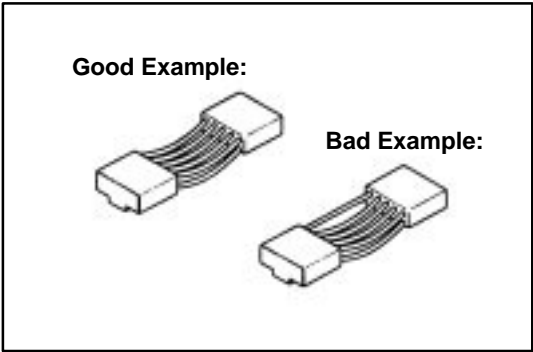
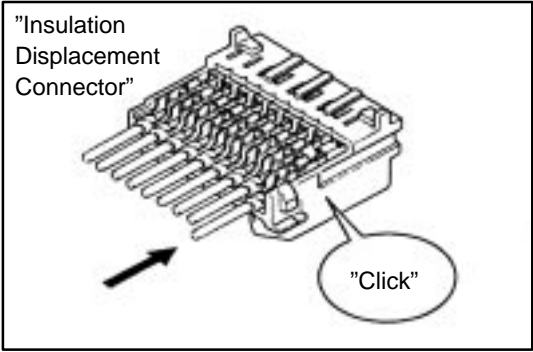
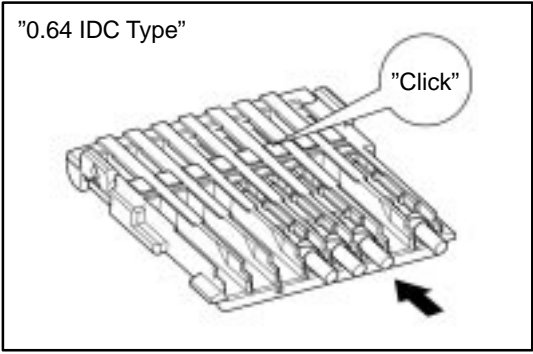
- Removal of the terminal from housing cavity will cause damage to rubber plug material (the wire seal), deteriorating waterproofing performance. Be sure to replace the housing with a new one.
- Check the withdrawn terminal for the following if trying to use it again.
  - It is free of deformation and damage
  - It is free of adherents such as rubber plug material (wire seal)
  - Replace any deformed terminal.

**TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT**



**1. Push the Terminal into the Connector until you hear a "click".**

NOTE: Not all terminals will give an audible "click".

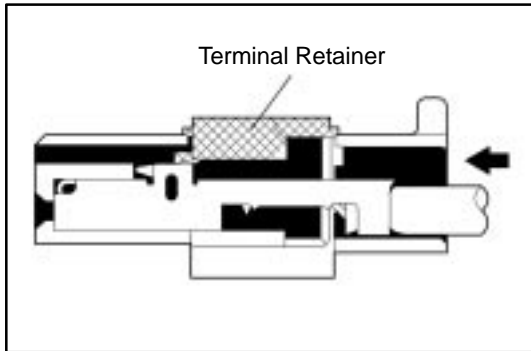


**NOTICE:**

- After repairing, never let only one harness stretch.
- In case that it becomes short, do over again using the repair wire.

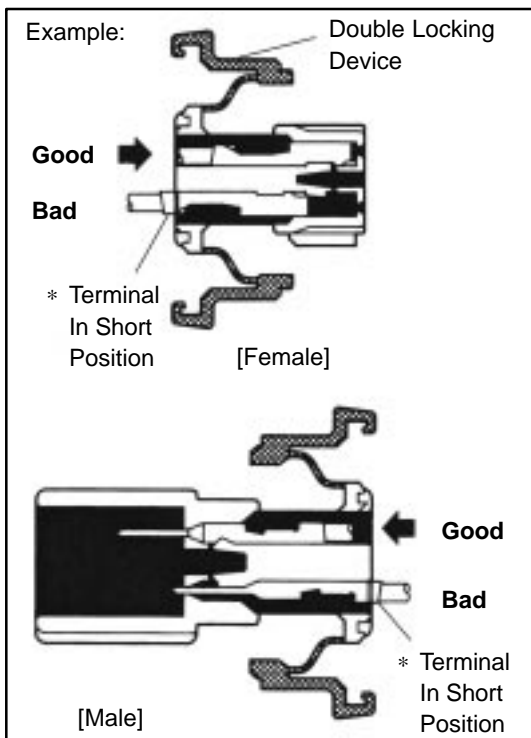
**2. Double Locking Type Connector  
(with terminal retainer or double locking device)**

The connector is fitted with a terminal retainer, or a double locking device, it is in the temporary lock position at insert the terminal.



Type A (For 1.0, 1.0II, 1.3, 1.8, 2.3II 4.8 and 8.0 of Non-Waterproof Type Connector)

(a) Insert the terminal.



HINT:

1. Make sure the terminal is positioned correctly.
2. Insert the terminal with terminal retainer in the temporary lock position.

(b) Insert the terminal until the locking clip locks firmly.

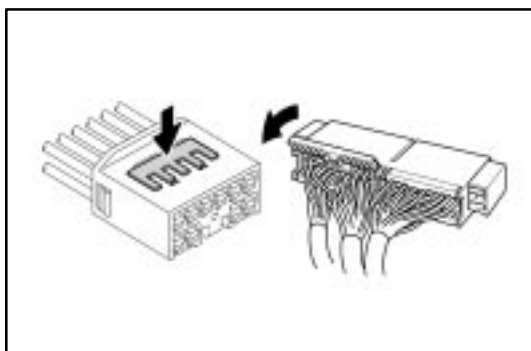
HINT:

1. Pull the terminal back gently to check whether it is locked correctly.
2. If it cannot be inserted easily, check the terminal and the connector for damage.

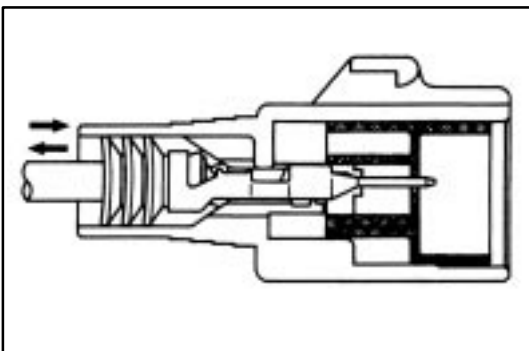
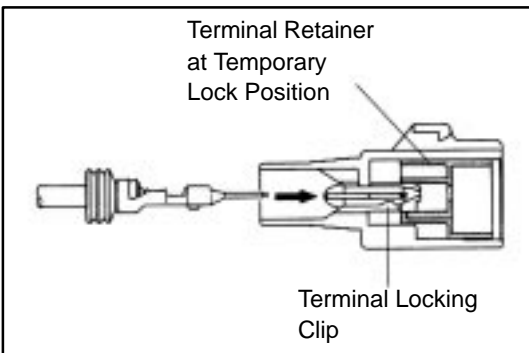
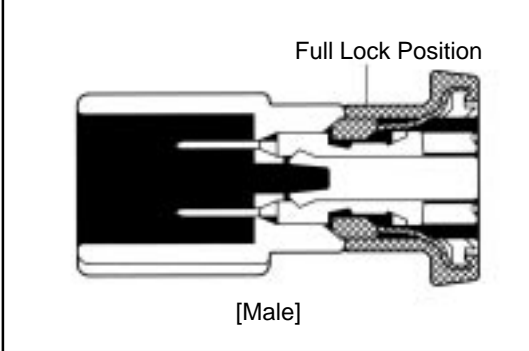
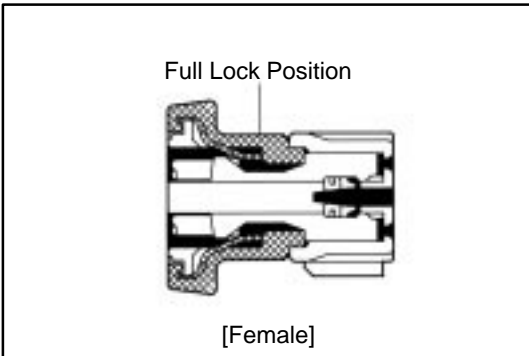
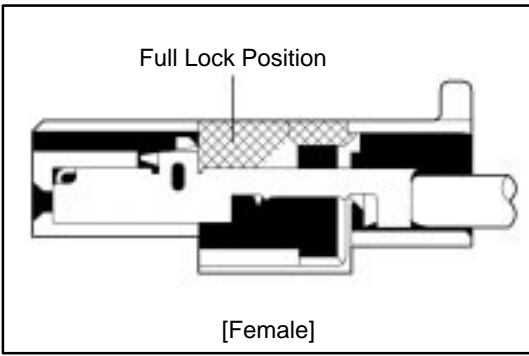
NOTE: If the terminal to locking clip does not lock firmly, the double locking device cannot lock or terminal retainer does not lock at full lock position so the terminal backs out from connector.

(c) Close terminal retainer or double locking device.

The connector is fitted with a terminal retainer, or a double locking device, return it to the full lock position.



TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT



Type B (For 1.8, 2.3, 2.3II, 4.8, 6.3 and 8.0 of Waterproof Type)

**(For Male Connector)**

(a) Insert the terminal.

HINT:

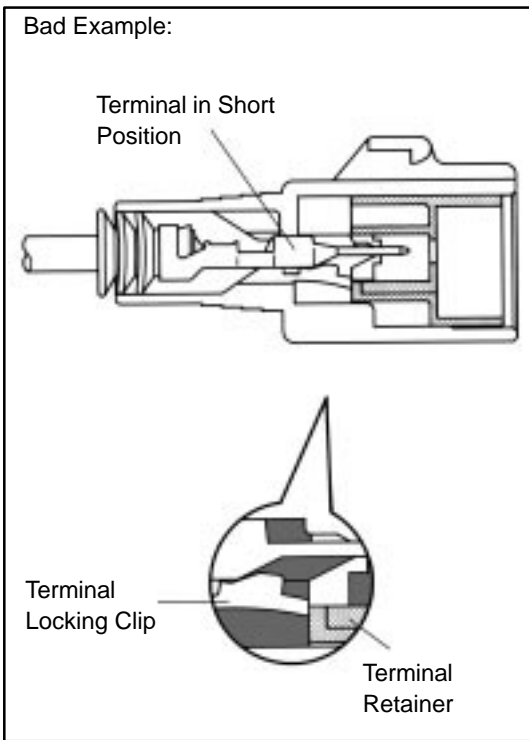
1. Make sure the terminal is positioned correctly.
2. Insert the terminal with terminal retainer in the temporary lock position.

(b) Insert the terminal until the locking clip locks firmly.

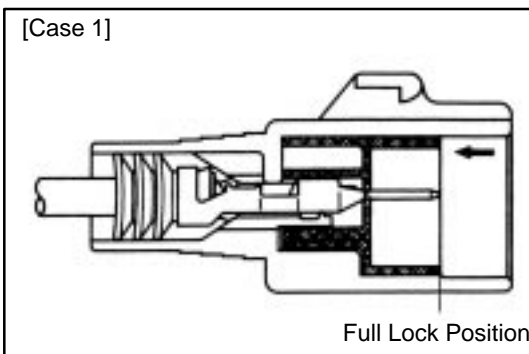
HINT:

1. Pull the terminal back gently to check whether it is locked correctly.
2. If it cannot be inserted easily, check the terminal and the connector for damage.

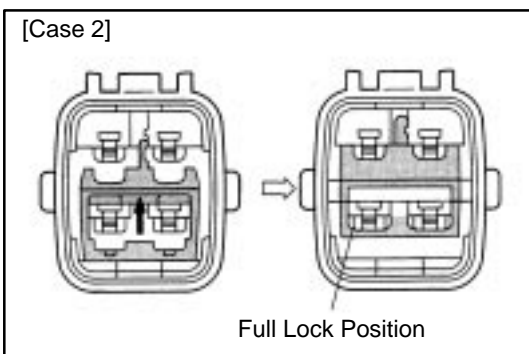
**TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT**



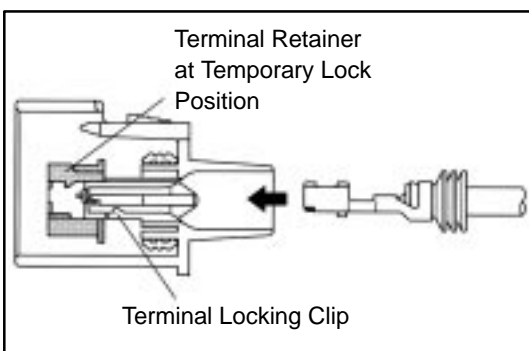
NOTE: If the terminal to locking clip does not lock firmly, terminal retainer can not lock at full lock position so the terminal backs out from connector.



- (c) "For Case 1"  
Push the terminal retainer in to the full lock position.



- "For Case 2"  
Raise the terminal retainer up to the full lock position.

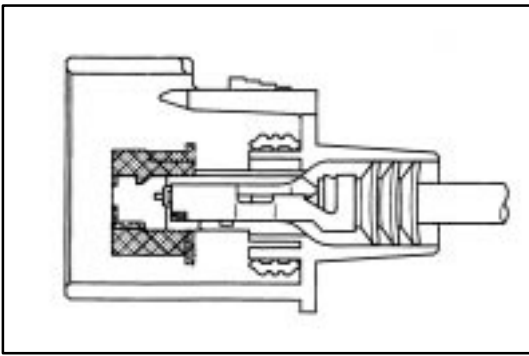


**(For Female Connector)**

- (a) Insert the terminal.
- HINT:
1. Make sure the terminal is positioned correctly.
  2. Insert the terminal with terminal retainer in the temporary lock position.



## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT

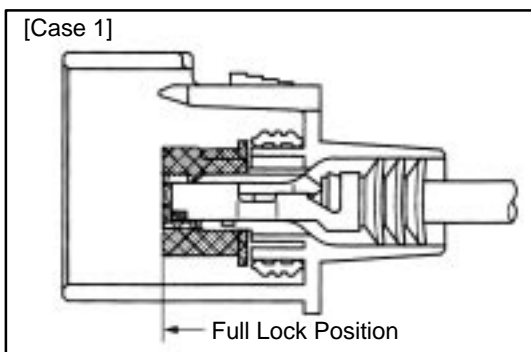
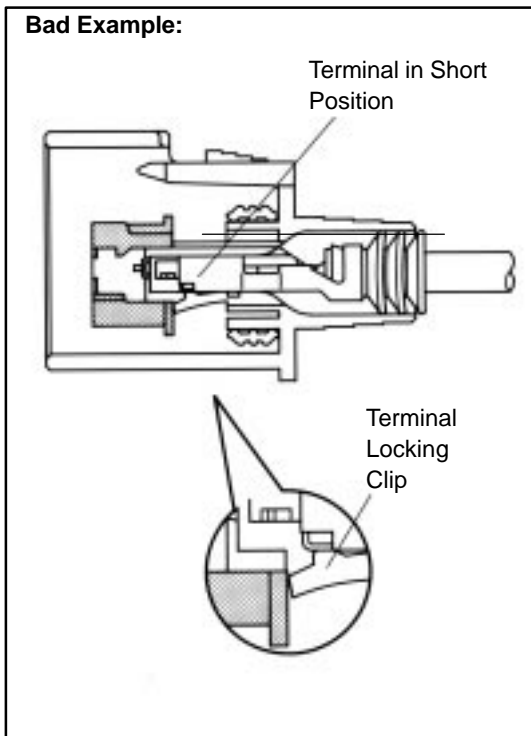


(b) Insert the terminal until the locking clip locks firmly.

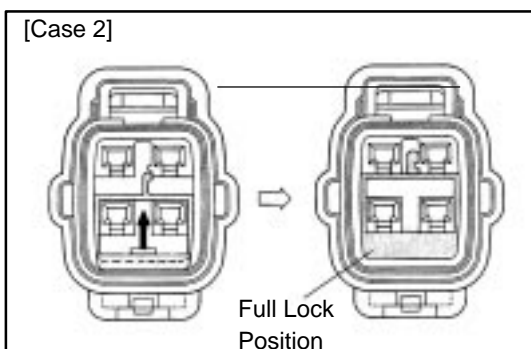
HINT:

1. Pull the terminal back gently to check whether it is locked correctly.
2. If it cannot be inserted easily, check the terminal and the connector for damage.

NOTE: If the terminal to locking clip does not lock firmly, terminal retainer can not lock at full lock position so the terminal backs out from connector.

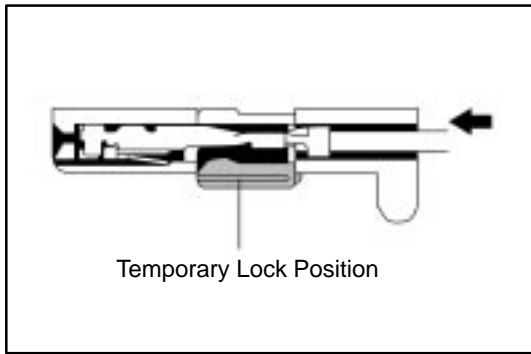


- (c) "For Case 1"  
Push the terminal retainer in to the full lock position.



- "For Case 2"  
Raise the terminal retainer up to the full lock position.

## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT



### Type C (For 0.64 Type Connector)

- (a) Insert the terminal.

#### HINT:

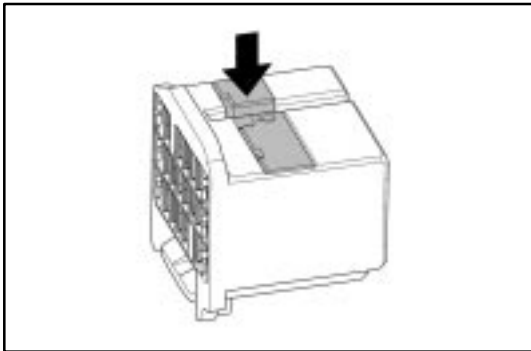
1. Make sure the terminal is positioned correctly.
2. Insert the terminal with terminal retainer in the temporary lock position.

- (b) Insert the terminal until the terminal lance locks firmly.

#### HINT:

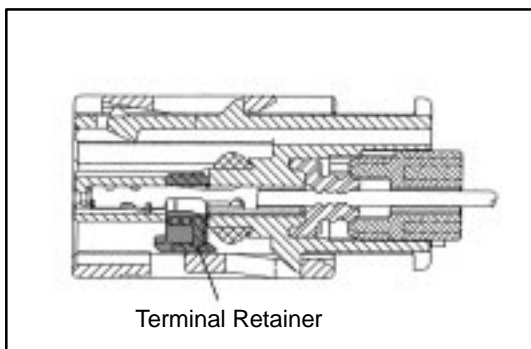
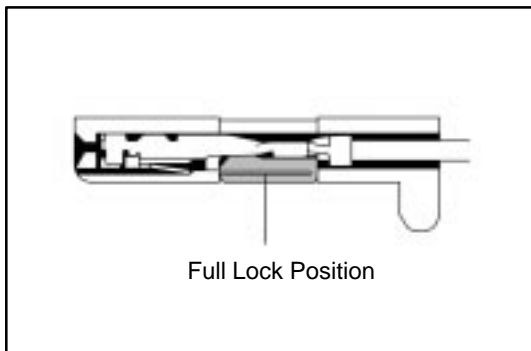
1. Pull the terminal back gently to check whether it is locked correctly.
2. If it cannot be inserted easily, check the terminal and the connector for damage.

**NOTE:** If the terminal to terminal lance does not lock firmly, the double locking device cannot lock or terminal retainer does not lock at full lock position so the terminal backs out from connector.



- (c) Close terminal retainer.

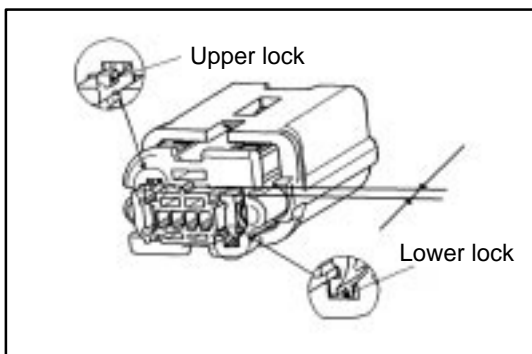
The connector is fitted with a terminal retainer, return it to the full lock position.



### Type D (For 0.64 Splash Proof Type Connector)

- (a) Verify that the terminal retainer is at unlocked position.

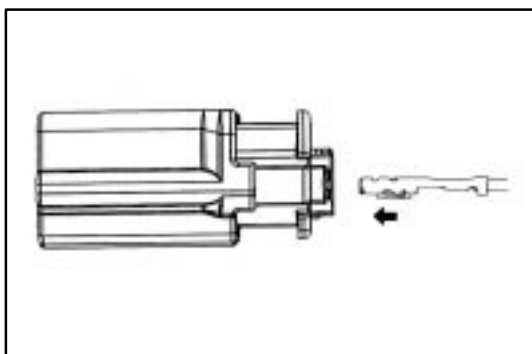
## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT



- (b) Verify that Rear Holder is at unlocked position.

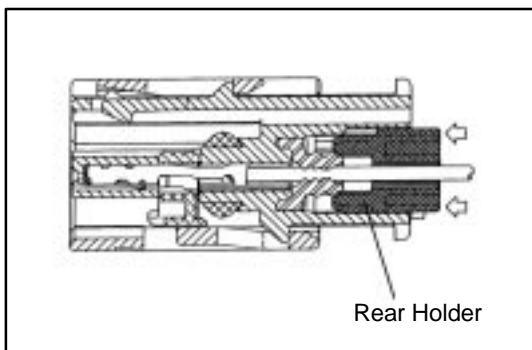
**NOTICE:**

If Rear holder or wire seal has been removed, replace it with new one.

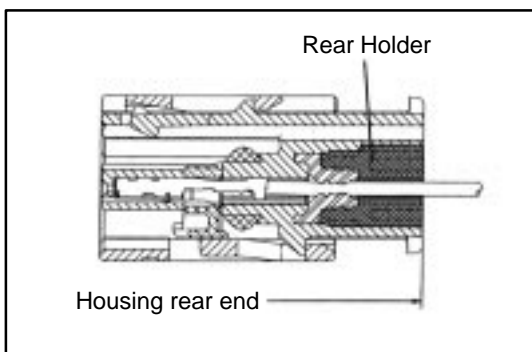


- (c) Insert the terminal fully into the housing until it is locked.

HINT: The terminal has a longer insertion stroke than conventional ones.



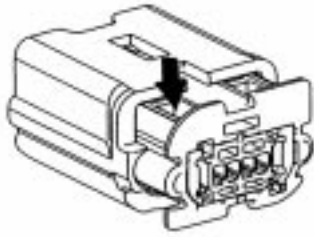
- (d) Set Rear holder to locked position. Push Rear holder in the direction of arrow until it is locked.



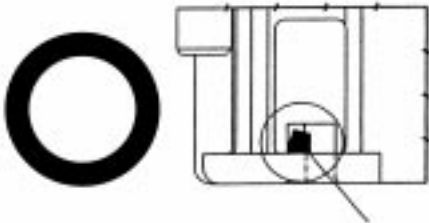
- (e) Verify that Rear holder is at the specified position. The rear end of Rear holder is flush with the rear end of Housing.

TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT

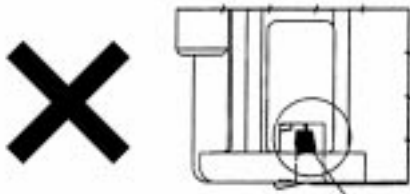
Verify that the lock (upper side) is at the specified position under locked status.



Lock check position, upper



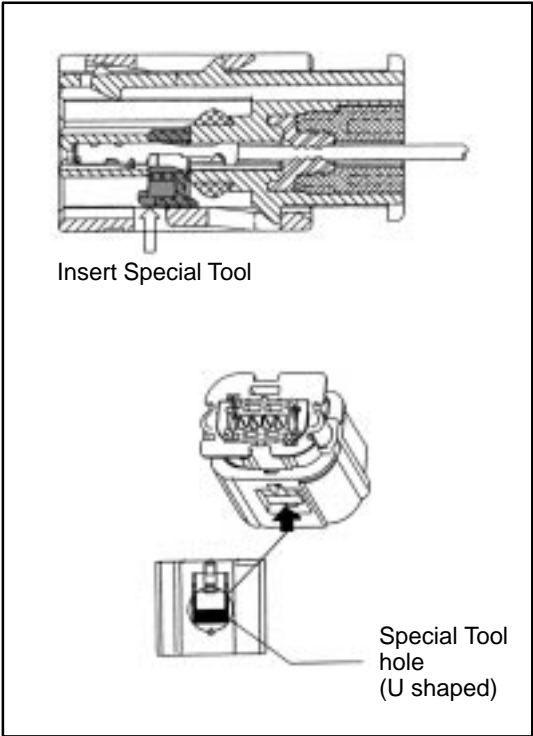
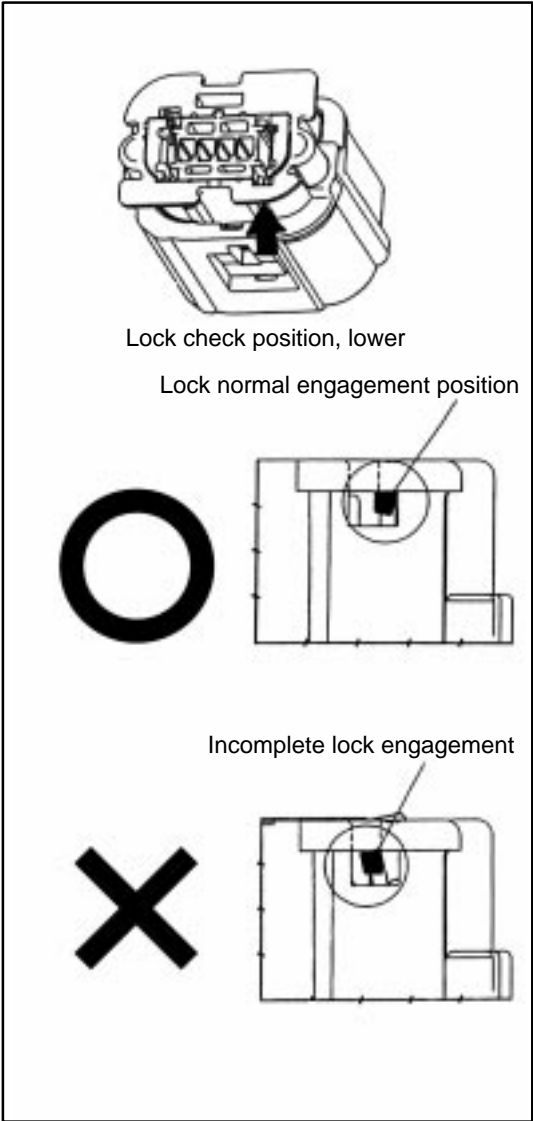
Lock normal engagement position



Incomplete lock engagement

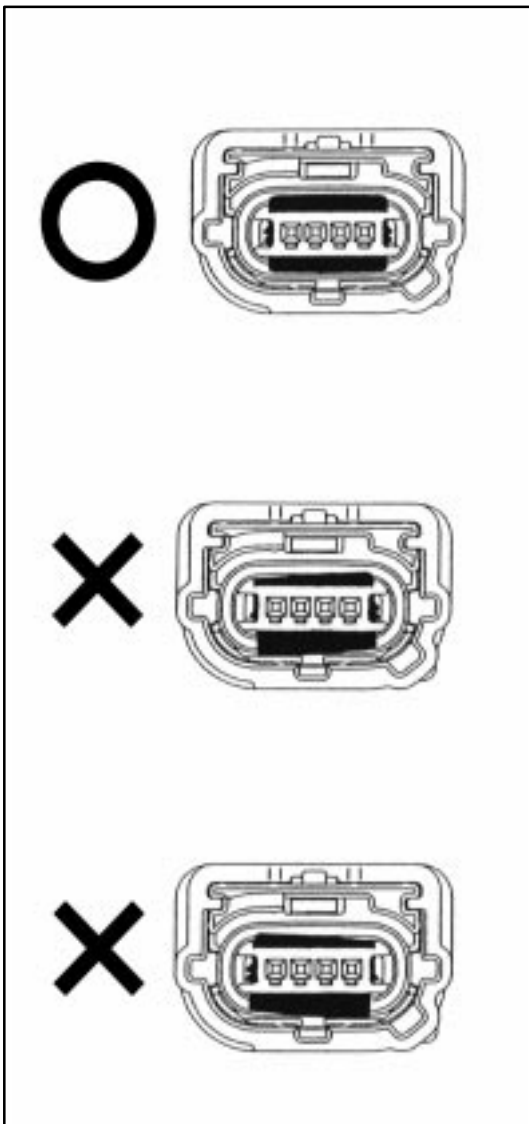
TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT

Verify that the lock (lower side) is at the specified position under the locked status.



- (f) Set Terminal retainer to Lock position. Insert Special tool into the hole specified in the left and push Terminal retainer.

## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT



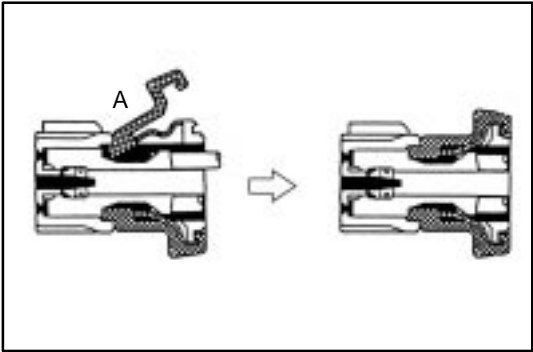
- (g) Verify that Terminal retainer is inserted to the specified position.

**NOTICE:**

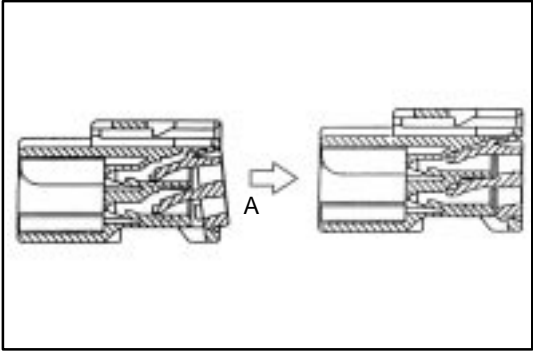
If Terminal retainer is stopped at its middle of insertion, holding wire, push Terminal to help it for full insertion.

TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT

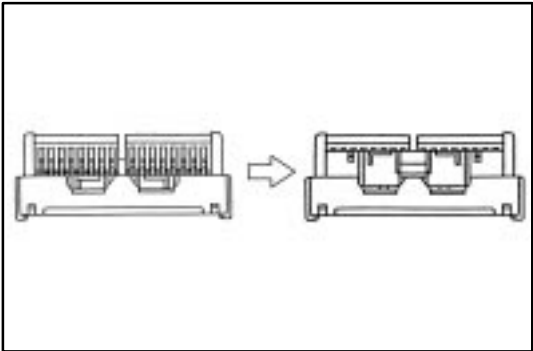
SPECIAL EXAMPLE



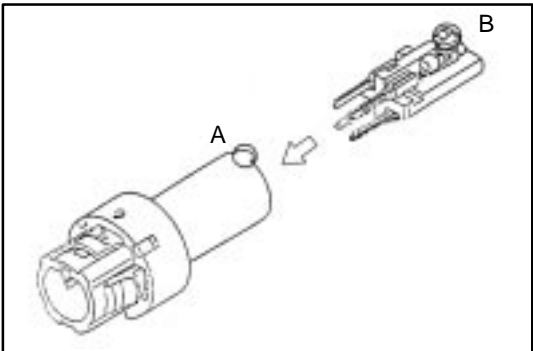
- First fit the section A.



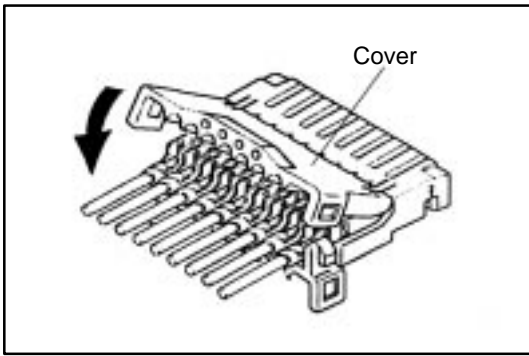
- Install the lock of the section A first.



- Install the lock of the retainer and pull the white cover until you hear a click sound.



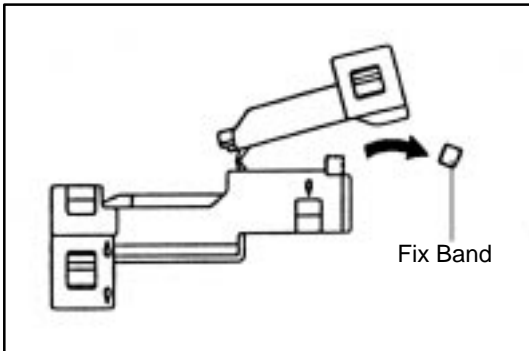
- Install the convex part (A) of the outer part correctly to the section B of the inner part.



### Insulation Displacement Connector

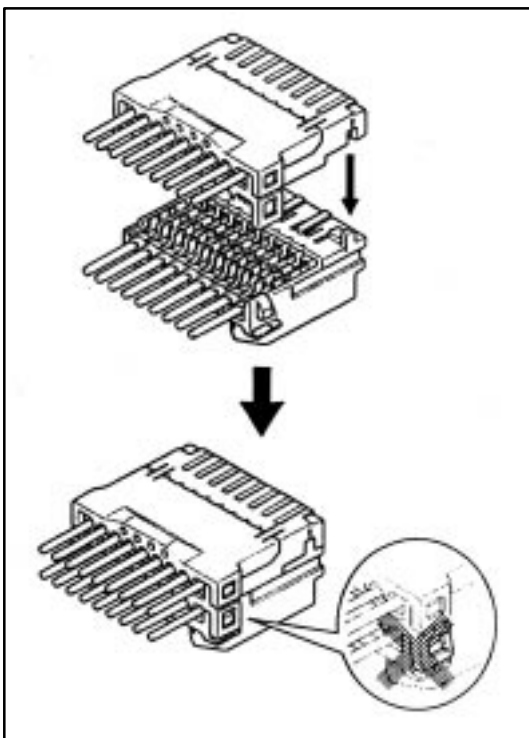
w/ Cover : **CLOSE COVER**

**NOTICE:**  
Securely lock it



### HINT:

When replacing it to a new connector, cut off the fixing band without leaving it.



### UNITE CONNECTOR

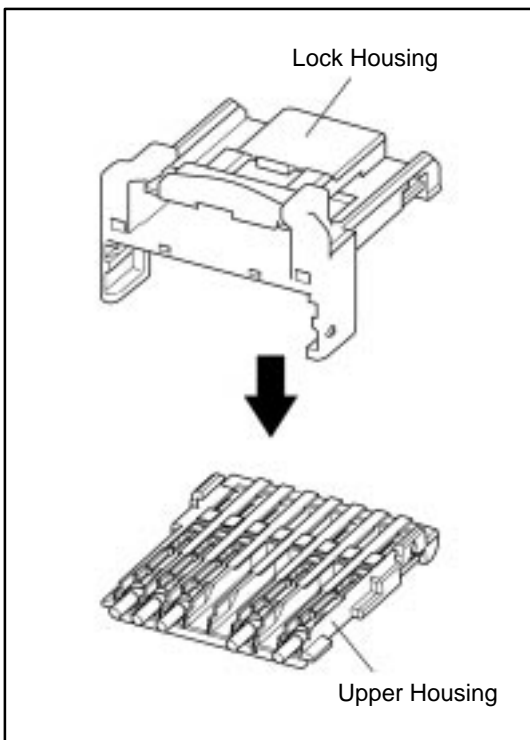
Make the projection of the front lock of the upper housing meet the ditch of the front lock of the lower housing and fix the rear lock.

### NOTICE:

- After uniting, securely lock it for not leaving the rear lock arm deformed.
- Make sure that the terminals will not become loose by pulling the wires lightly.



## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT

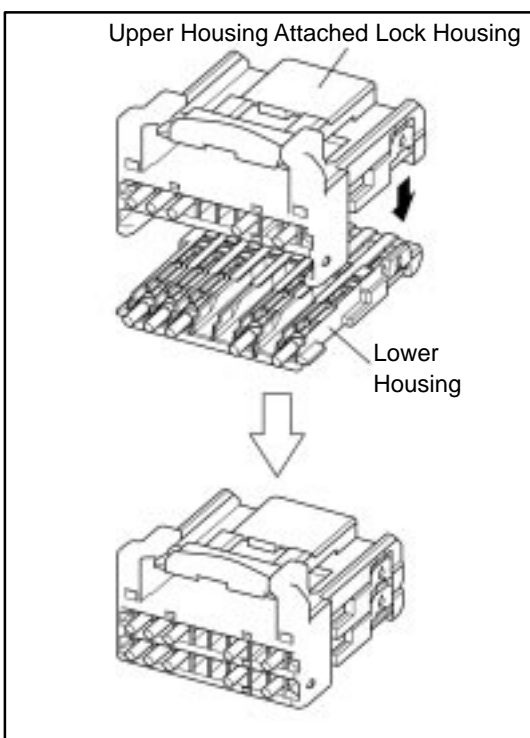


### Insulation Displacement Connector (0.64 Type)

(a) Install the upper housing to the lock housing.

#### NOTICE:

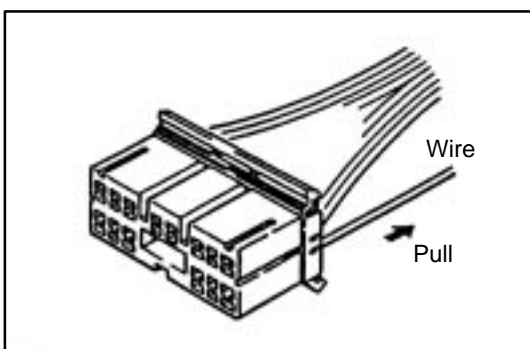
- Securely Lock it.
- Be careful not to mistake the upper housing and lower housing when putting together.



(b) Make the projection of the front lock of the upper housing attached lock housing meet the ditch of the front lock of the lower housing and fix the rear lock.

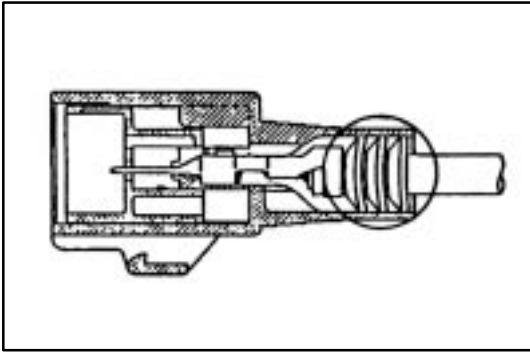
#### NOTICE:

- After uniting, securely lock it for not leaving the rear lock arm deformed.
- Make sure that the terminals will not become loose by pulling the wires lightly.
- Be careful not to mistake the upper housing and lower housing when putting together.



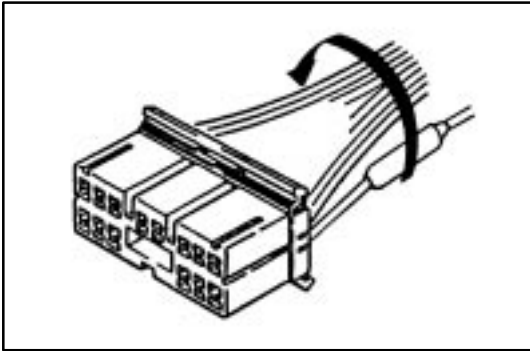
3. When properly installed, pulling gently on the wire lead will prove the terminal is locked in the connector.

## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT



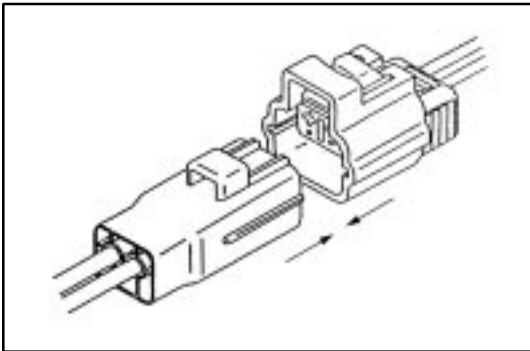
**NOTICE:**

If you working on the waterproof type, make sure that a rubber plug or a terminal gasket is inserted into the housing securely.



**4. Secure the Repaired Wire to the Harness**

If the wire is not in the conduit, or secured by other means, wrap vinyl tape around the bundle to keep it together with the other wires.



**5. Connect Connector**

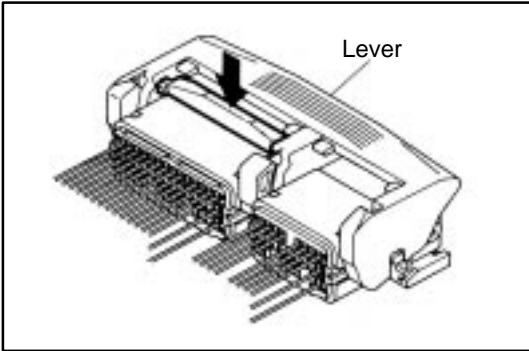
- Fit the male connector to the female terminal.

**NOTICE:**

- Do not twist the connector when fitting.
- Insert it until fully locked.

**HOW TO INSTALL AND REMOVE SPECIAL CONNECTORS**

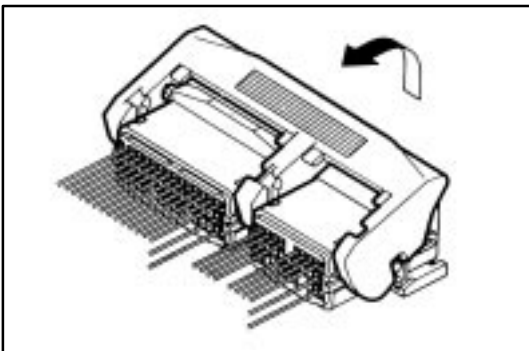
**Low Fit and Lever Type Connector**



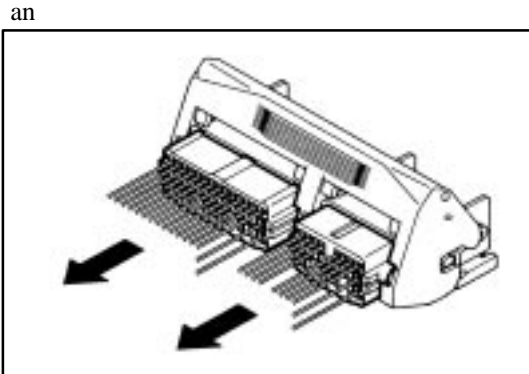
[Case 1]

**1. Cut the connection of the connector**

- (1) Push the place indicated by the arrow.
- (2) The lock is released and lever is lifted up.

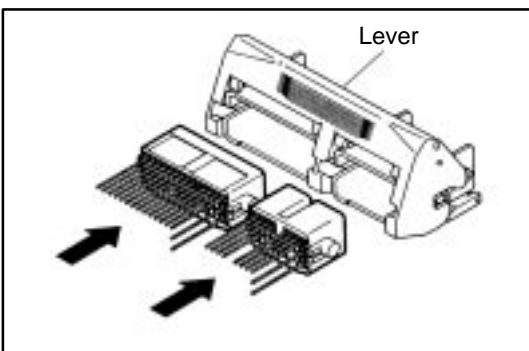


- (3) Lift the lever up until it stops.



- (4) Cut the connection of the connector.

**NOTICE:**  
Do not hold the wire harness to pull it.

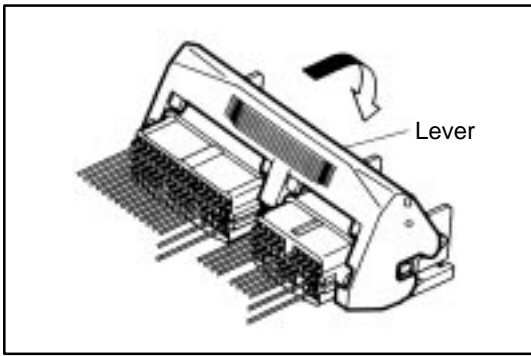


**2. Connect the connector**

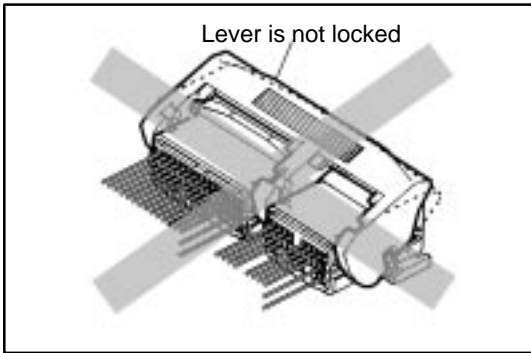
- (1) Connect the connector in the condition that the lever is fully lifted up.

**HINT:** If the lever is locked at the lower position, follow the procedure [Case 1]. (1) to (3) and lift the lever up fully.

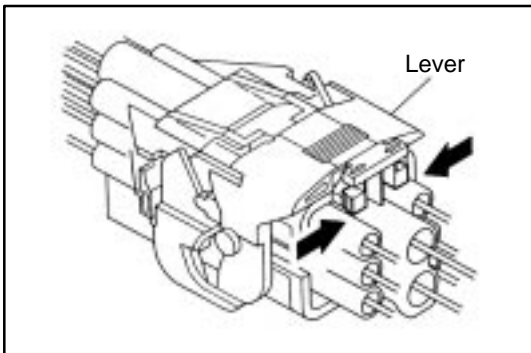
**TERMINAL AND CONNECTOR REPAIR—HOW TO INSTALL AND REMOVE SPECIAL CONNECTORS**



- (2) Hold the connector to prevent it from slip off and push it down until you hear a click to lock it.



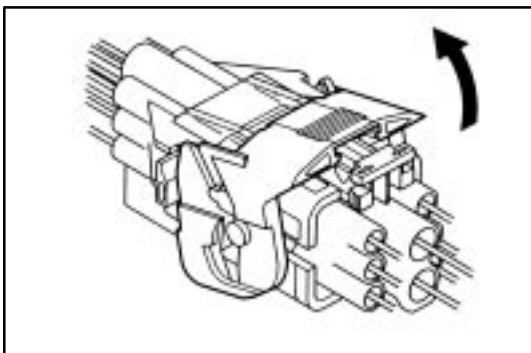
- (3) Confirm that the lever is securely locked.



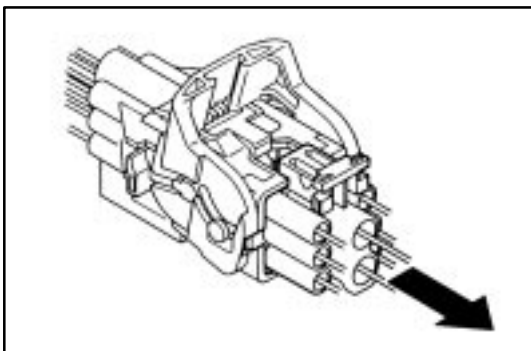
[Case 2]

**1. Cut the connection of the connector**

- (1) Hold the area indicated by the arrow in the illustration
- (2) The lock is released and the lever is lifted up.



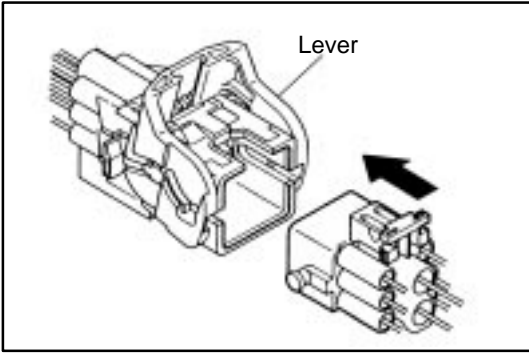
- (3) Lift the lever up fully.



- (4) Cut the connection of the connector.

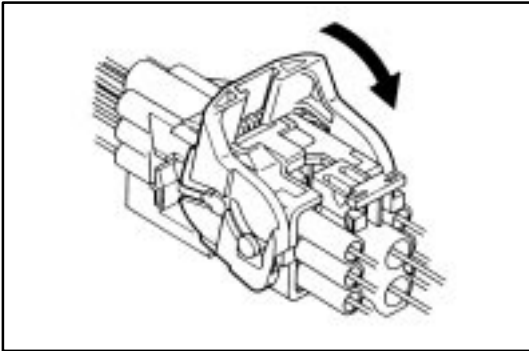
**NOTICE:**  
Do not hold the wire harness to pull it.

**TERMINAL AND CONNECTOR REPAIR—HOW TO INSTALL AND REMOVE SPECIAL CONNECTORS**

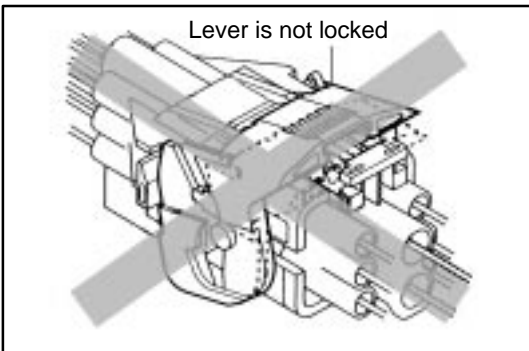


**2. Connect the connector**

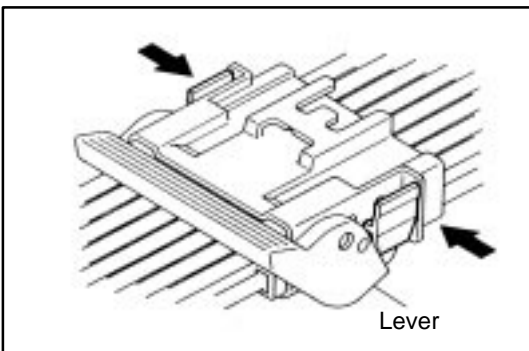
- (1) Connect the connector in the condition that the lever is fully lifted up.



- (2) Hold the connector to prevent it from slip off and push it down until you hear a click to lock it.



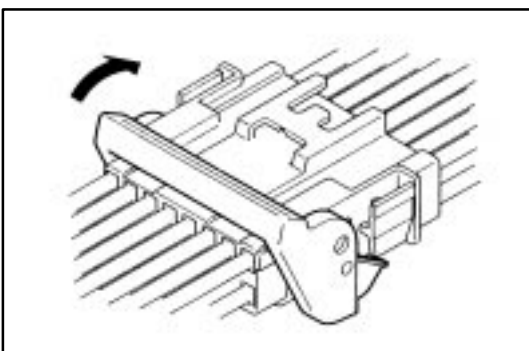
- (3) Confirm that the lever is securely locked.



[Case 3]

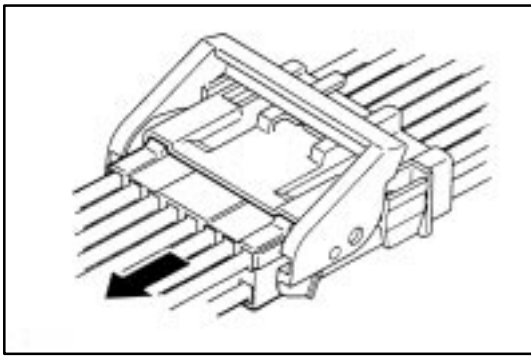
**1. Cut the connection of the connector**

- (1) Pick the part indicated in the illustration by fingers.
- (2) The lock is released and the lever is lifted up.



- (3) Lift the lever up fully.

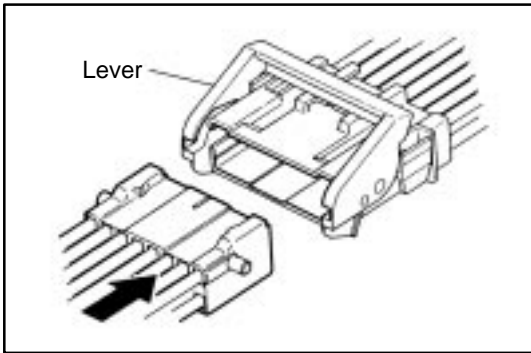
**TERMINAL AND CONNECTOR REPAIR—HOW TO INSTALL AND REMOVE SPECIAL CONNECTORS**



(4) Cut the connection of the connector.

**NOTICE:**

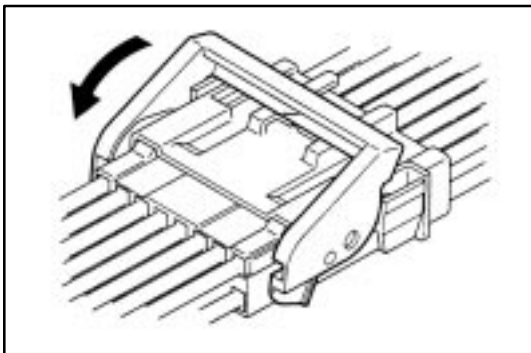
**Do not hold the wire harness to pull it.**



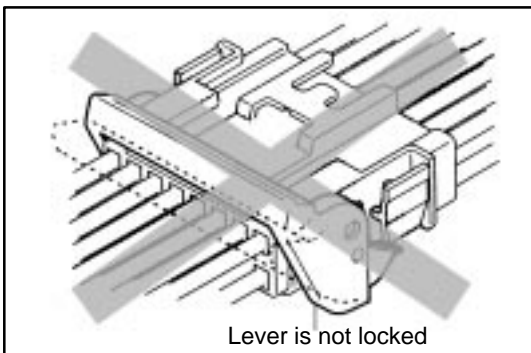
**2. Connect the connector**

(1) Connect the connector in the condition that the lever is fully lifted up.

HINT: If the lever is locked at the lower position, follow the procedure [Case 3]. (1) to (3) and lift the lever up fully.

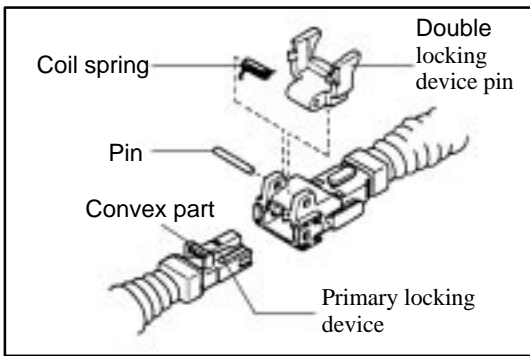


(2) Hold the connector to prevent it from slip off and push it down until you hear a click to lock it.



(3) Confirm that the lever is securely fitted

## TERMINAL AND CONNECTOR REPAIR—HOW TO INSTALL AND REMOVE SPECIAL CONNECTORS



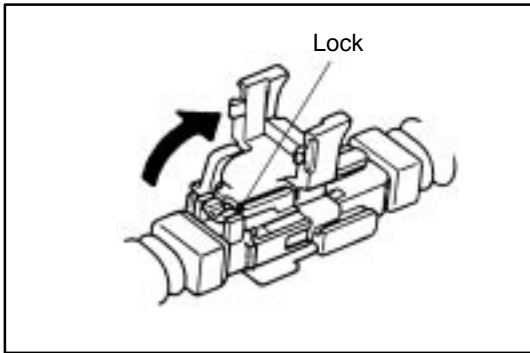
### The connector with secondary locking device

#### 1. Area used

- Wire harness for SRS airbag deployment

#### 2. Cut the connection of the connector.

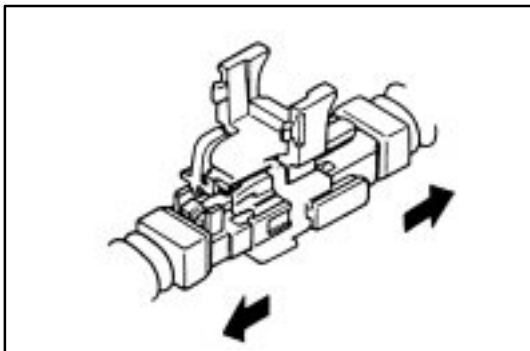
- (1) Release the double locking.



- (2) Release the primary locking and separate the connector.

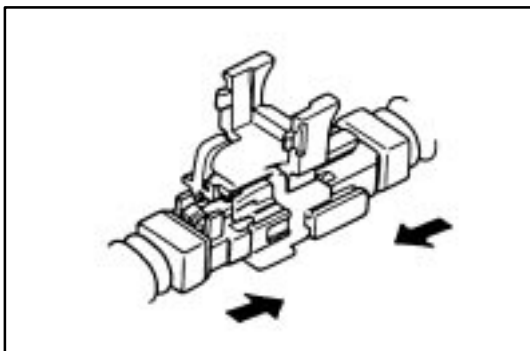
#### NOTICE:

Do not hold the wire harness to pull it.



#### 3. Connect the connector

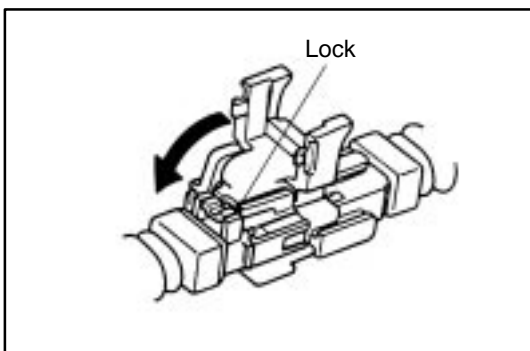
- (1) Install the primary locking device and connect the connector.



- (2) Install the double locking device.

#### NOTICE:

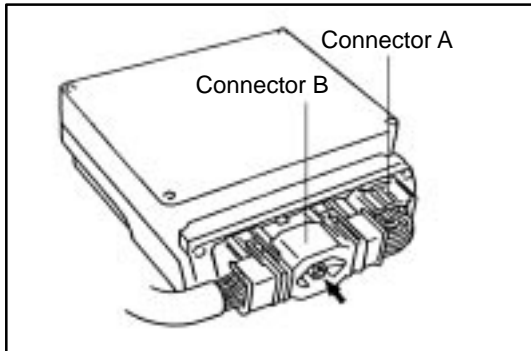
The double locking device can not be installed unless the primary locking device is installed.



## Connector fixed by bolts

### 1. Area used

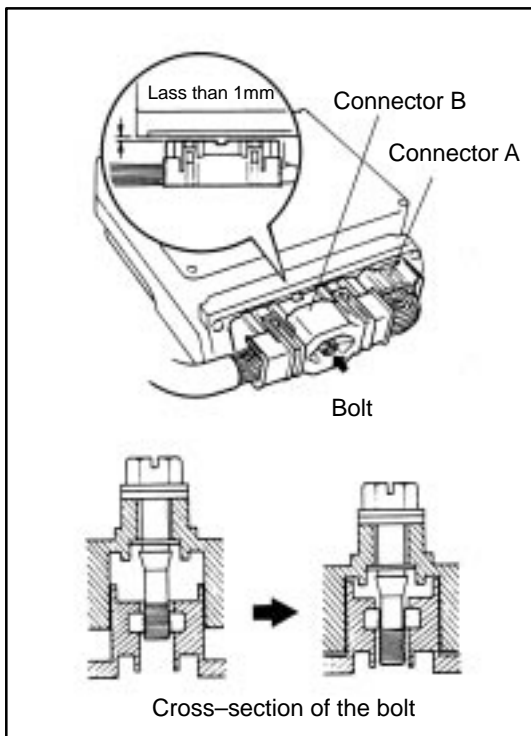
- Engine control computer harness



### 2. Cut the connection of the connector.

- (1) Remove the connector A.
- (2) Loosen the bolt using a tool like driver until the connector B can be removed by hand and separate the connector.

**HINT:** If the bolt can not be removed, roll it while pulling forward.



### 3. Connection of the connector

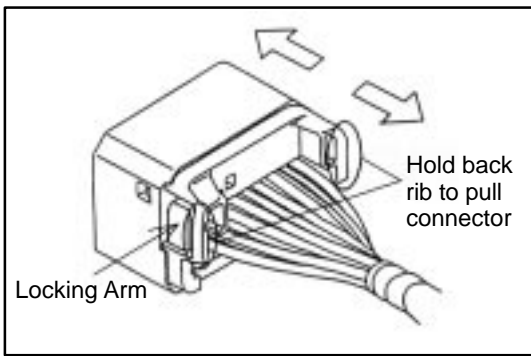
- (1) Temporarily fit the connector B.
- (2) Tighten the bolt by using tool like driver and fit the connector B completely.

**NOTICE:**

- Tighten the bolt until feeling it lighter. Then confirm that the width of chink of the connector B is less than 1mm.
- The bolt can be rolled after it is fitted.
- If the impact wrench is used, do not let it rolling more than three seconds. (The housing may be deformed by generated heat)
- Be sure and connect the connector B straight. Do not incline it while connecting.

- (3) Connect the connector A.



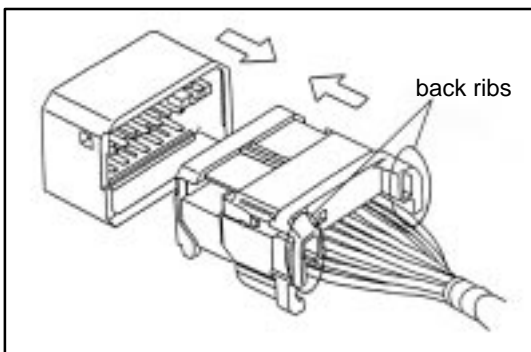
**TERMINAL AND CONNECTOR REPAIR—HOW TO INSTALL AND REMOVE SPECIAL CONNECTORS****1. Cut the connection of the connector**

- (1) Push down on locking arm to unlock. Then hold the back ribs of connector to remove connector.

- (2) Cut the Connection of the connector.

**NOTICE:**

**Do not hold the wire harness to pull it.**

**2. Connect the Connector**

- (1) Align the direction of locking feature in same direction and mate the connector holding the back ribs in straight direction.
- (2) Insert it until a lock securely locks, and pull the connector lightly after the insertion, and confirm that a lock is enabled.

TABLE OF HOUSING CROSS SECTION

Type	○ : Position of the lance ↑ : Direction of lock released ↗ : Direction of the special tool inserted	
	Male	Female
0.64		<p>(Double Lock Type) [Terminal Lance]</p>
0.64 IDC		<p>[Terminal Lance]</p>
1.0		<p>(Double Lock Type) [Housing Lance]</p>
1.0II Non-waterproof Type	<p>(Double Lock Type) [Housing Lance]</p>	<p>(Double Lock Type) [Housing Lance]</p>

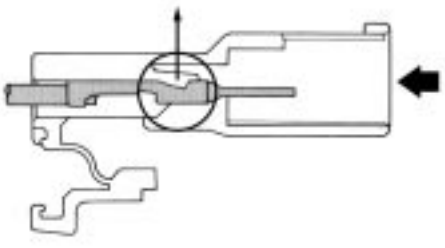
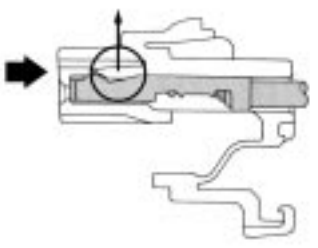
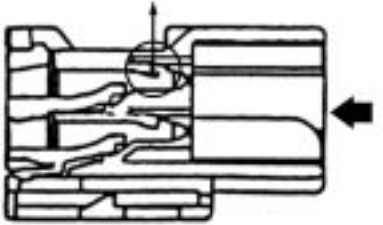
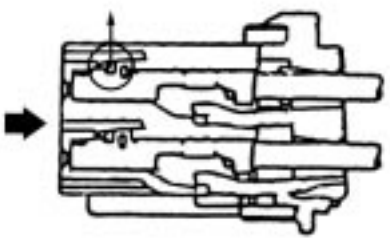

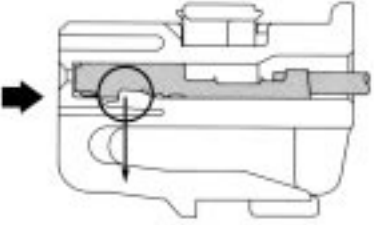
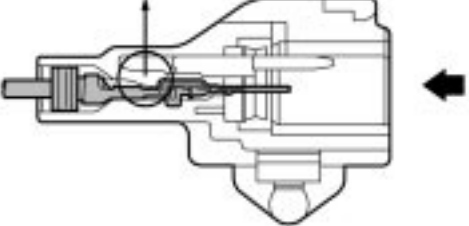
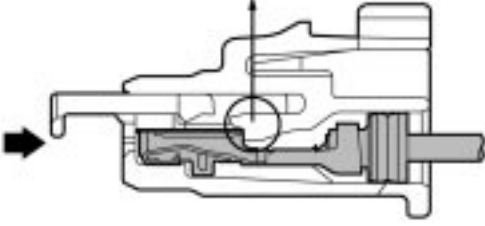
C

TABLE OF HOUSING CROSS SECTION

Type	○ : Position of the lance ↑ : Direction of lock released ▲ : Direction of the special tool inserted	
	Male	Female
1.0II Waterproof Type		<p>[Housing Lance]</p>
1.0III 1.0IV Non-waterproof Type	<p>(Double Lock Type) [Housing Lance]</p>	<p>(Double Lock Type) [Housing Lance]</p>
1.0III IDC	<p>[Terminal Lance]</p>	<p>[Terminal Lance]</p>
1.0III Waterproof Type	<p>(Double Lock Type) [Housing Lance]</p>	<p>(Double Lock Type) [Housing Lance]</p>

C

TABLE OF HOUSING CROSS SECTION

Type	○ : Position of the lance ↑ : Direction of lock released ▲ : Direction of the special tool inserted	
	Male	Female
1.3 Non-waterproof Type	 <p>(Double Lock Type) [Housing Lance]</p>	 <p>(Double Lock Type) [Housing Lance]</p>
1.3 Non-waterproof Type	 <p>(Double Lock Type) [Housing Lance]</p>	 <p>(Double Lock Type) [Housing Lance]</p>
1.3 Non-waterproof Type		 <p>(Double Lock Type) [Housing Lance]</p>
1.3 Waterproof Type	 <p>(Double Lock Type) [Housing Lance]</p>	 <p>(Double Lock Type) [Housing Lance]</p>

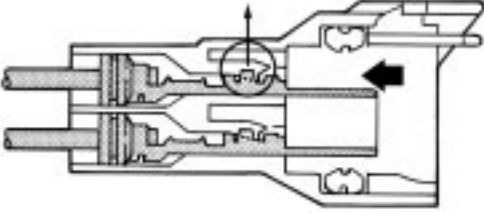
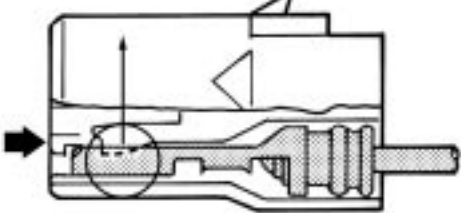
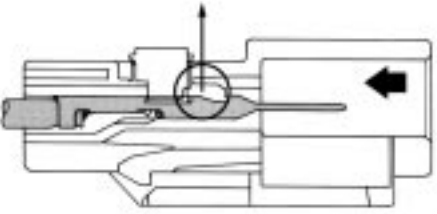
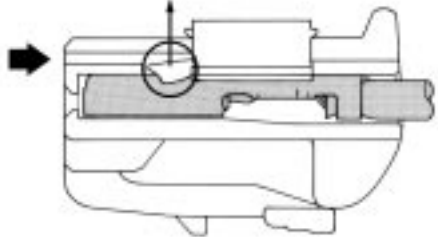

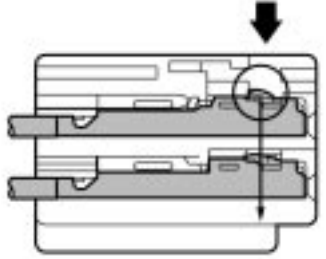
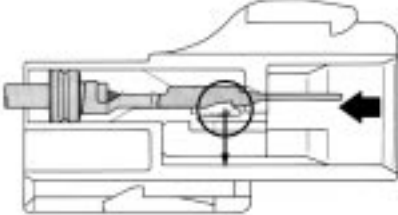
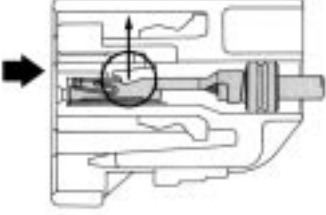
C

TABLE OF HOUSING CROSS SECTION

Type	○ : Position of the lance ↑ : Direction of lock released ▲ : Direction of the special tool inserted	
	Male	Female
1.8 Non-waterproof Type	<p>(Double Lock Type) [Housing Lance]</p>	<p>(Double Lock Type) [Housing Lance]</p>
1.8 Waterproof Type		<p>(Double Lock Type) [Housing Lance]</p>
1.8II	<p>(Double Lock Type) [Housing Lance]</p>	<p>(Double Lock Type) [Housing Lance]</p>
2.3 Non-waterproof Type	<p>[Housing Lance]</p>	<p>[Housing Lance]</p>

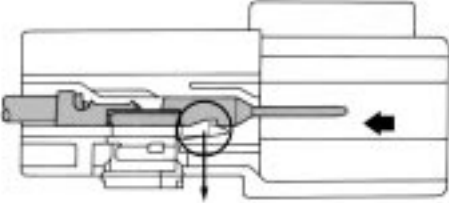
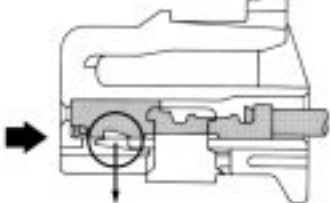
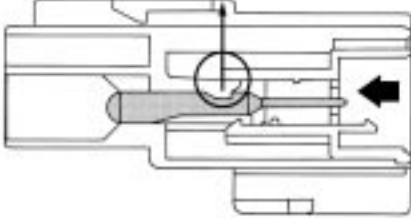
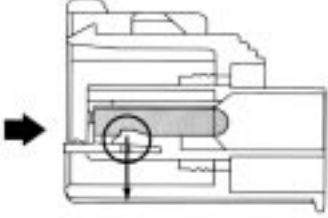
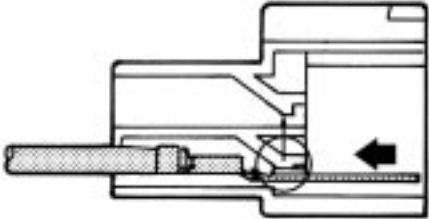
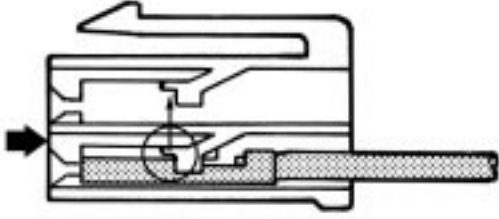

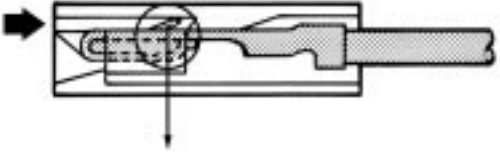
C

TABLE OF HOUSING CROSS SECTION

Type	○ : Position of the lance ↑ : Direction of lock released ▲ : Direction of the special tool inserted	
	Male	Female
2.3 Waterproof Type	 <p>[Housing Lance]</p>	 <p>[Housing Lance]</p>
2.3II Non-waterproof Type	 <p>(Double Lock Type) [Housing Lance]</p>	 <p>(Double Lock Type) [Housing Lance]</p>
2.3II IDC		 <p>[Terminal Lance]</p>
2.3II Waterproof Type	 <p>(Double Lock Type) [Housing Lance]</p>	 <p>(Double Lock Type) [Housing Lance]</p>

C

TABLE OF HOUSING CROSS SECTION

Type	○ : Position of the lance ↑ : Direction of lock released ▲ : Direction of the special tool inserted	
	Male	Female
4.8 Non-waterproof Type	 <p>(Double Lock Type) [Housing Lance]</p>	 <p>(Double Lock Type) [Housing Lance]</p>
4.8 Waterproof Type	 <p>(Double Lock Type) [Housing Lance]</p>	 <p>(Double Lock Type) [Housing Lance]</p>
6.3 Non-waterproof Type	 <p>[Housing Lance]</p>	 <p>[Housing Lance]</p>
6.3 Single Terminal		 <p>[Terminal Lance]</p>

C

TABLE OF HOUSING CROSS SECTION

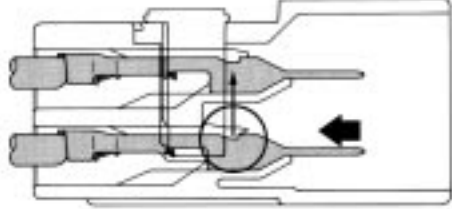
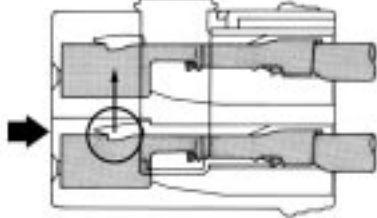
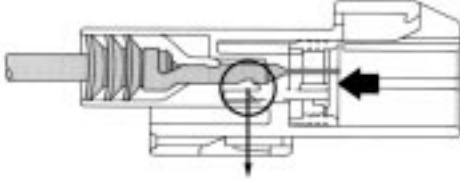
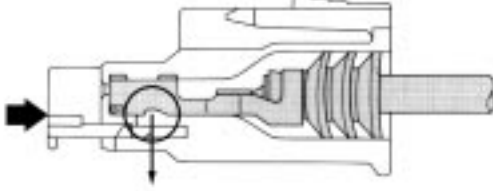

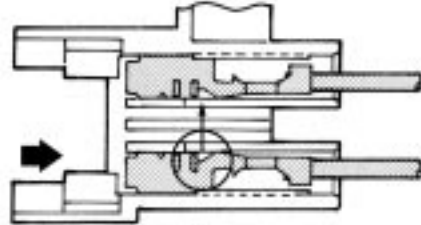
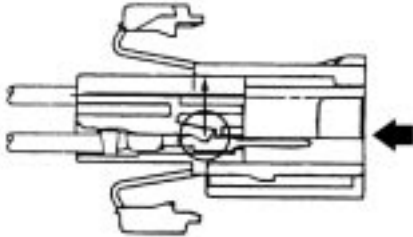
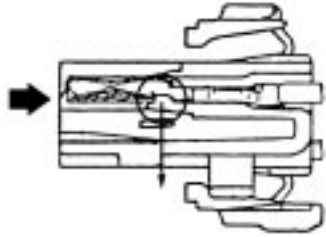
Type	○ : Position of the lance ↑ : Direction of lock released ▲ : Direction of the special tool inserted	
	Male	Female
8.0 Non-waterproof Type	 <p>(Double Lock Type) [Housing Lance]</p>	 <p>(Double Lock Type) [Housing Lance]</p>
8.0 Waterproof Type	 <p>(Double Lock Type) [Housing Lance]</p>	 <p>(Double Lock Type) [Housing Lance]</p>
BLADE FUSE		 <p>[Housing Lance]</p>
C-Type	 <p>(Double Lock Type) [Housing Lance]</p>	 <p>(Double Lock Type) [Housing Lance]</p>

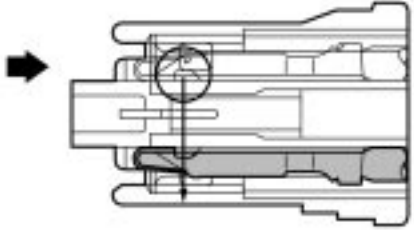
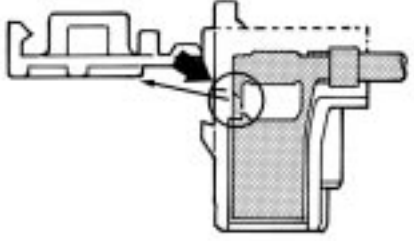
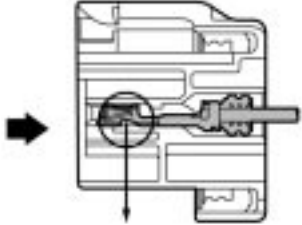
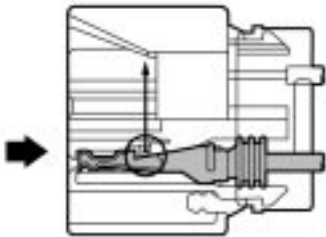


TABLE OF HOUSING CROSS SECTION

Type	○ : Position of the lance ↑ : Direction of lock released ▲ : Direction of the special tool inserted	
	Male	Female
6.3 Waterproof Type		<p>[Housing Lance]</p>
6.3 Waterproof Type		<p>[Housing Lance]</p>
7.7	<p>[Terminal Lance]</p>	<p>[Terminal Lance]</p>
7.7	<p>[Housing Lance]</p>	<p>[Housing Lance]</p>

C

TABLE OF HOUSING CROSS SECTION

Type	○ : Position of the lance ↑ : Direction of lock released ▲ : Direction of the special tool inserted	
	Male	Female
FOG-LP	_____	 <p>(Double Lock Type) [Housing Lance]</p>
FTC	_____	 <p>(Double Lock Type) [Housing Lance]</p>
HEAD LAMP Waterproof Type	_____	 <p>[Housing Lance]</p>
HB3 HB4	_____	 <p>[Housing Lance]</p>

C

TABLE OF HOUSING CROSS SECTION

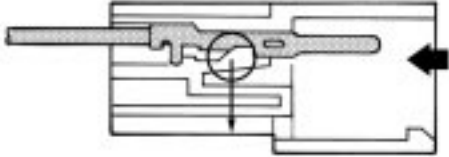
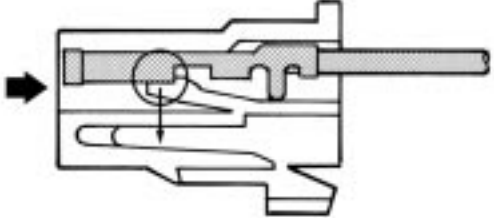

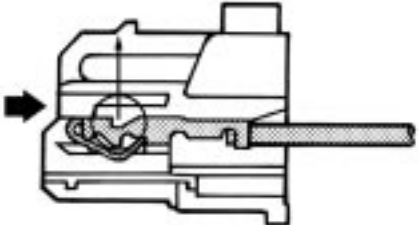

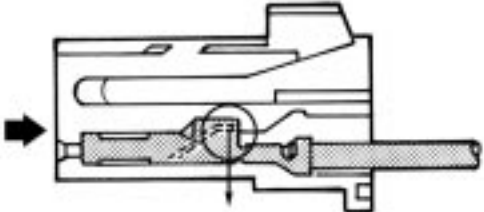

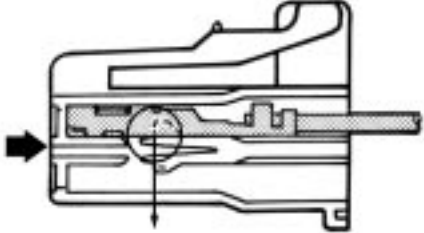
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	Male	Female
LAC	 <p>[Housing Lance]</p>	 <p>[Housing Lance]</p>
MFPC		 <p>[Housing Lance]</p>
MIC		 <p>[Terminal Lance]</p>
PULSE LOCK		 <p>[Housing Lance]</p>

TABLE OF HOUSING CROSS SECTION

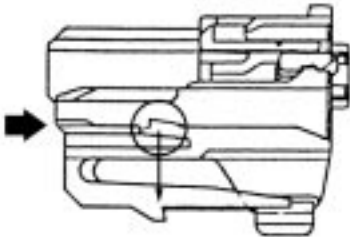
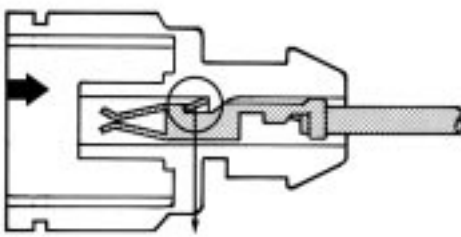
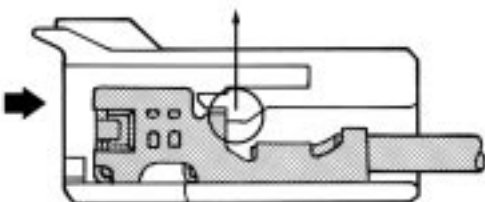
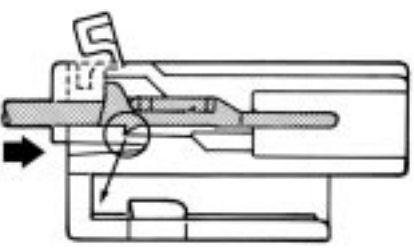
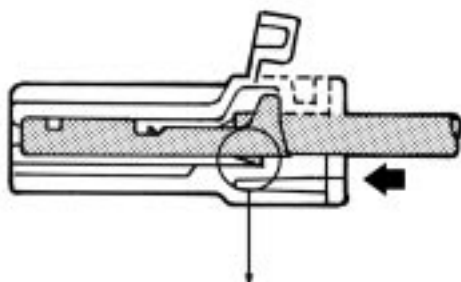
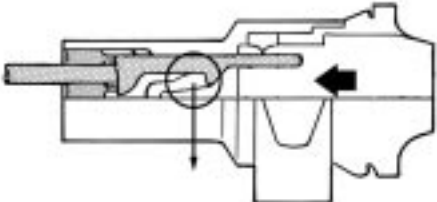
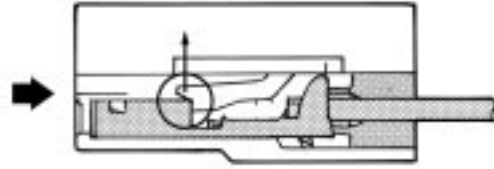
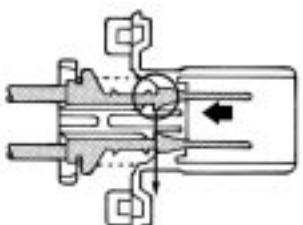
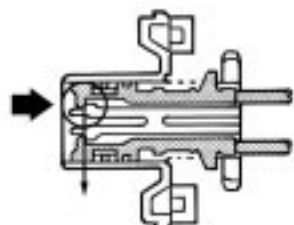
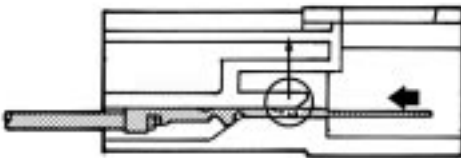
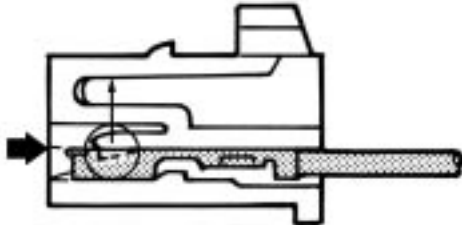
Type	○ : Position of the lance ↑ : Direction of lock released ▲ : Direction of the special tool inserted	
	Male	Female
SFPC	_____	 <p>[Housing Lance]</p>
SL	_____	 <p>[Terminal Lance]</p>
SP	_____	 <p>[Housing Lance]</p>
TLC Non-waterproof Type	 <p>(Double Lock Type) [Housing Lance]</p>	 <p>(Double Lock Type) [Housing Lance]</p>

TABLE OF HOUSING CROSS SECTION

Type	○ : Position of the lance ↑ : Direction of lock released ▲ : Direction of the special tool inserted	
	Male	Female
TLC Waterproof Type	 <p>[Housing Lance]</p>	 <p>[Housing Lance]</p>
TNS	 <p>(Double Lock Type) [Housing Lance]</p>	 <p>(Double Lock Type) [Housing Lance]</p>
TODC	 <p>[Housing Lance]</p>	 <p>(Double Lock Type) [Housing Lance]</p>

<FEMALE> 1P Waterproof Type


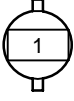


















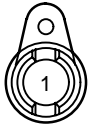



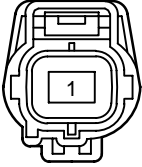

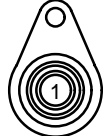
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 <p>90980-10241</p>	 <p>90980-10247 90980-10705</p>	 <p>90980-10439</p>	 <p>90980-10837</p>
 <p>90980-10893</p>	 <p>90980-10983</p>	 <p>90980-11007</p>	 <p>90980-11166</p>
 <p>90980-11184</p>	 <p>90980-11243</p>	 <p>90980-11252</p>	 <p>90980-11271</p>
 <p>90980-11282</p>	 <p>90980-11363</p>	 <p>90980-11400</p>	 <p>90980-11428</p>

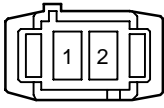
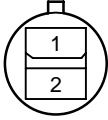
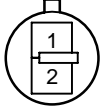

















TABLE OF HOUSING SHAPE

<FEMALE> 1P Waterproof Type

 <p>90980-11941</p>	 <p>90980-11942</p>	 <p>90980-11943</p>	 <p>90980-11944</p>
 <p>90980-11963</p>	 <p>90980-12125</p>	 <p>90980-12129 90980-12136</p>	

D

















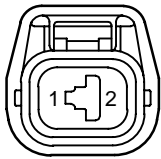



<FEMALE> 2P Waterproof Type

 <p>90980-10092</p>	 <p>90980-10123</p>	 <p>90980-10157</p>	 <p>90980-10184</p>
 <p>90980-10193</p>	 <p>90980-10243</p>	 <p>90980-10474</p>	 <p>90980-10496</p>
 <p>90980-10498 90980-10706</p>	 <p>90980-10532</p>	 <p>90980-10534</p>	 <p>90980-10556</p>
 <p>90980-10567</p>	 <p>90980-10572</p>	 <p>90980-10576</p>	 <p>90980-10578</p>
 <p>90980-10581</p>	 <p>90980-10583</p>	 <p>90980-10593</p>	 <p>90980-10595</p>



## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 2P Waterproof Type

			
90980-10598	90980-10609	90980-10617	90980-10622
			
90980-10623	90980-10626	90980-10702	90980-10720
			
90980-10734	90980-10735	90980-10736	90980-10737
			
90980-10748 90980-10846	90980-10839	90980-10843	90980-10847
			
90980-10853	90980-10887	90980-10899	90980-10901

D

<FEMALE> 2P Waterproof Type

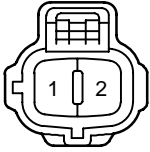
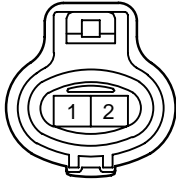






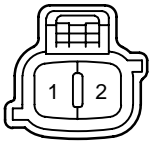
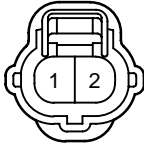



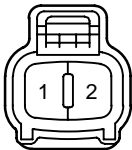


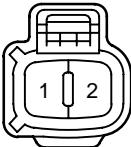





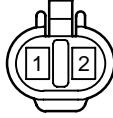
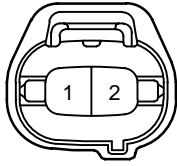


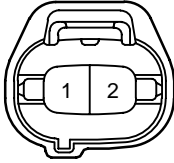







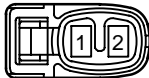
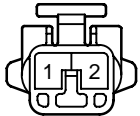




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 <p>90980-10974</p>	 <p>90980-11003</p>	 <p>90980-11005</p>	 <p>90980-11009</p>
 <p>90980-11019</p>	 <p>90980-11025 90980-11401</p>	 <p>90980-11030</p>	 <p>90980-11032</p>
 <p>90980-11038</p>	 <p>90980-11051</p>	 <p>90980-11061</p>	 <p>90980-11062</p>
 <p>90980-11068</p>	 <p>90980-11070</p>	 <p>90980-11075</p>	 <p>90980-11095</p>

TABLE OF HOUSING SHAPE

<FEMALE> 2P Waterproof Type

 <p>90980-11096</p>	 <p>90980-11140</p>	 <p>90980-11142</p>	 <p>90980-11149</p>
 <p>90980-11153</p>	 <p>90980-11154 90980-11284</p>	 <p>90980-11156</p>	 <p>90980-11162</p>
 <p>90980-11163</p>	 <p>90980-11176</p>	 <p>90980-11189</p>	 <p>90980-11207</p>
 <p>90980-11235</p>	 <p>90980-11237</p>	 <p>90980-11246</p>	 <p>90980-11248</p>
 <p>90980-11250</p>	 <p>90980-11255</p>	 <p>90980-11273</p>	 <p>90980-11285</p>

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TABLE OF HOUSING SHAPE

<FEMALE> 2P Waterproof Type

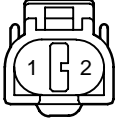


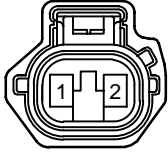
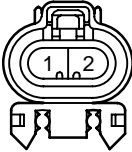
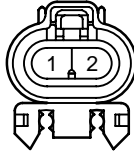

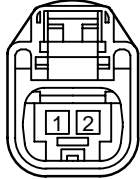
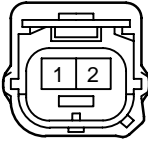


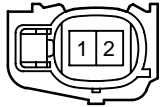
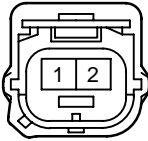

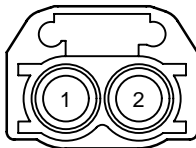
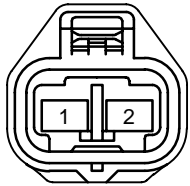


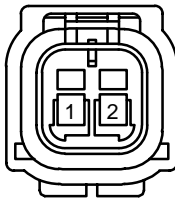
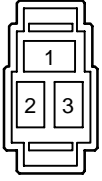
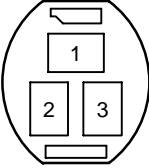

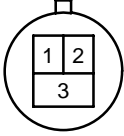
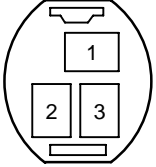

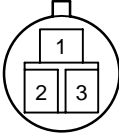

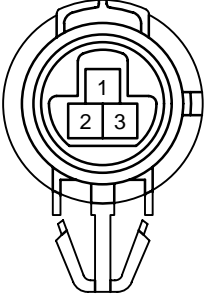










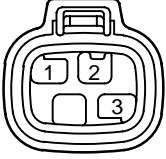
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 <p>90980-12117</p>	 <p>90980-12188</p>	 <p>90980-12195</p>	

TABLE OF HOUSING SHAPE

<FEMALE> 3P Waterproof Type

 <p>90980-10088</p>	 <p>90980-10110</p>	 <p>90980-10191</p>	 <p>90980-10199</p>
 <p>90980-10239</p>	 <p>90980-10245</p>	 <p>90980-10249</p>	 <p>90980-10341 90980-11491</p>
 <p>90980-10353</p>	 <p>90980-10395</p>	 <p>90980-10494</p>	 <p>90980-10501</p>
 <p>90980-10554</p>	 <p>90980-10574</p>	 <p>90980-10579</p>	 <p>90980-10629</p>
 <p>90980-10683</p>	 <p>90980-10690 90980-11157</p>	 <p>90980-10695</p>	 <p>90980-10834</p>

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TABLE OF HOUSING SHAPE

<FEMALE> 3P Waterproof Type

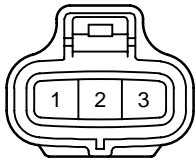
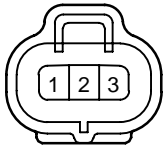


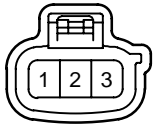









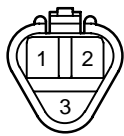


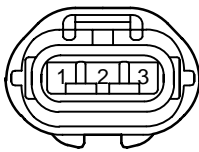
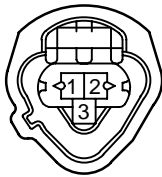
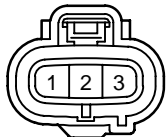
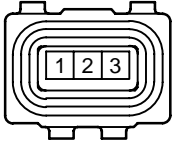
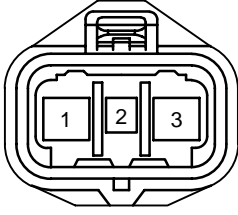
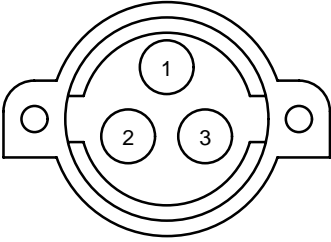
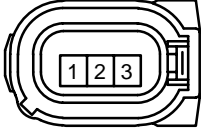
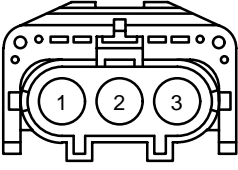
			
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90980-10981	90980-11016	90980-11020	90980-11045
			
90980-11108	90980-11132	90980-11143	90980-11145
			
90980-11161	90980-11170	90980-11245	90980-11261
			
90980-11294	90980-11349	90980-11451	90980-11860

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<FEMALE> 3P Waterproof Type

 <p>90980-11907</p>	 <p>90980-12058</p>	 <p>90980-12095</p>	 <p>90980-12168</p>
 <p>90980-12228</p>			

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<FEMALE> 4P Waterproof Type

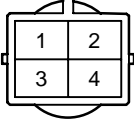
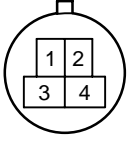
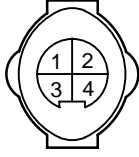

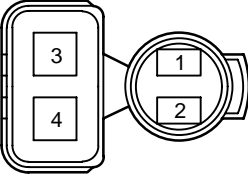

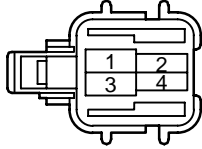



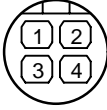







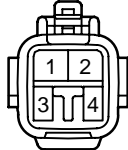

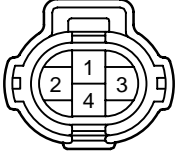



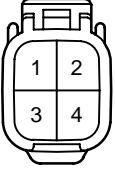




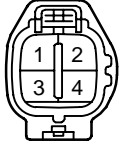






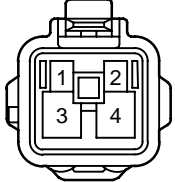
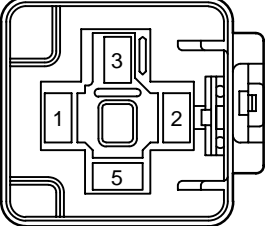
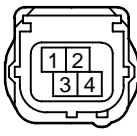
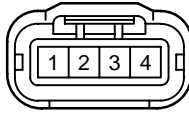
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 <p>90980-10373</p>	 <p>90980-10476</p>	 <p>90980-10549</p>	 <p>90980-10551</p>
 <p>90980-10591</p>	 <p>90980-10649</p>	 <p>90980-10663 90980-10664</p>	 <p>90980-10685</p>
 <p>90980-10701</p>	 <p>90980-10711</p>	 <p>90980-10831</p>	 <p>90980-10844</p>
 <p>90980-10869</p>	 <p>90980-10929</p>	 <p>90980-10940</p>	 <p>90980-10942</p>



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<FEMALE> 4P Waterproof Type

 <p>90980-10943</p>	 <p>90980-10990</p>	 <p>90980-11028</p>	 <p>90980-11036</p>
 <p>90980-11037</p>	 <p>90980-11065 90980-11066</p>	 <p>90980-11139</p>	 <p>90980-11150</p>
 <p>90980-11152</p>	 <p>90980-11178</p>	 <p>90980-11269</p>	 <p>90980-11283</p>
 <p>90980-11288</p>	 <p>90980-11292</p>	 <p>90980-11304</p>	 <p>90980-11329 90980-11330</p>
 <p>90980-11569</p>	 <p>90980-11640</p>	 <p>90980-11857</p>	 <p>90980-11885</p>

<FEMALE> 4P Waterproof Type



 <p>90980-11930</p>	 <p>90980-11964</p>	 <p>90980-12005</p>	 <p>90980-12057</p>

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<FEMALE> 5P Waterproof Type

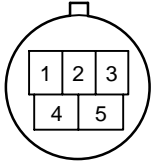
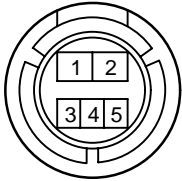

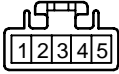

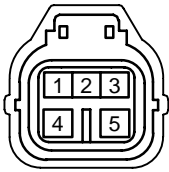


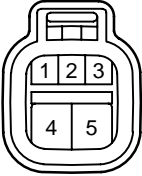
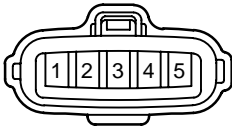
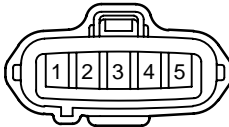


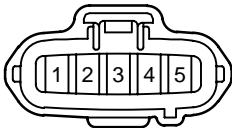
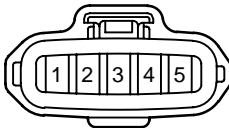
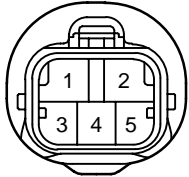

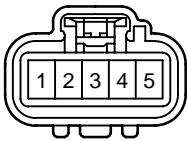

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 <p>90980-10624</p>	 <p>90980-10710</p>	 <p>90980-10712</p>	 <p>90980-10946</p>
 <p>90980-11022</p>	 <p>90980-11024</p>	 <p>90980-11049</p>	 <p>90980-11077</p>
 <p>90980-11182</p>	 <p>90980-11232</p>	 <p>90980-11317</p>	 <p>90980-11413</p>
 <p>90980-11599</p>	 <p>90980-11904</p>	 <p>90980-11960</p>	

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<FEMALE> 6P Waterproof Type

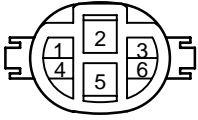

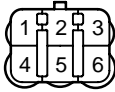
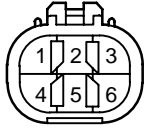

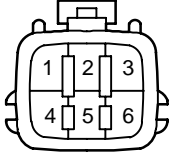
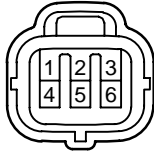
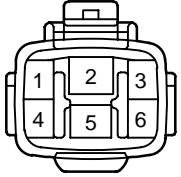



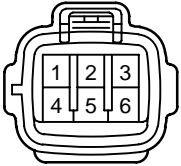
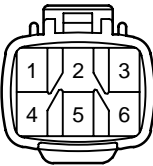

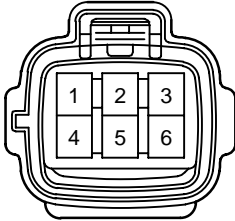
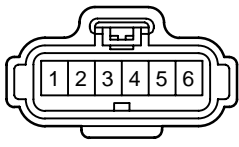
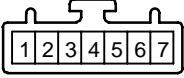
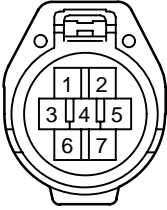
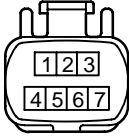
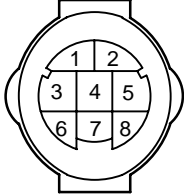

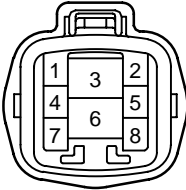
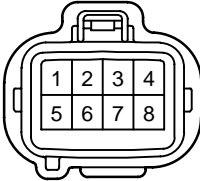

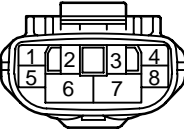
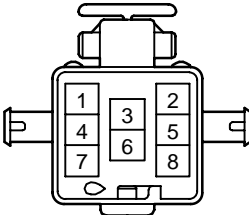
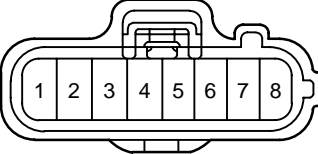
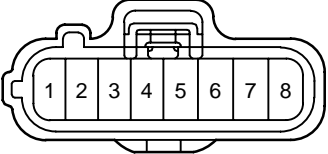
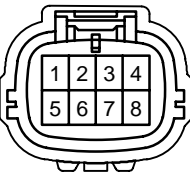
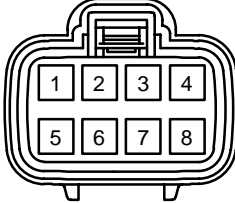
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 <p>90980-10988</p>	 <p>90980-11034</p>	 <p>90980-11144</p>	 <p>90980-11194</p>
 <p>90980-11197</p>	 <p>90980-11290</p>	 <p>90980-11663</p>	 <p>90980-11858</p>

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<FEMALE> 7P, 8P Waterproof Type

 <p>90980-10628</p>	 <p>90980-10931</p>	 <p>90980-11172</p>	 <p>90980-10205</p>
 <p>90980-10891</p>	 <p>90980-10895</p>	 <p>90980-10897</p>	 <p>90980-11190</p>
 <p>90980-11242</p>	 <p>90980-11461</p>	 <p>90980-11592</p>	 <p>90980-11593</p>
 <p>90980-12080</p>	 <p>90980-12164</p>		

<FEMALE> 9P Waterproof Type

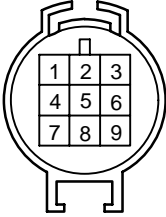
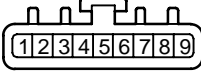
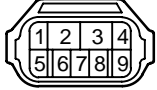
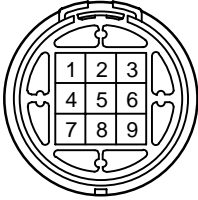
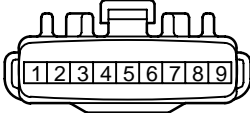
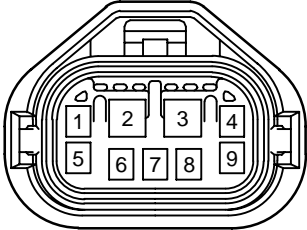
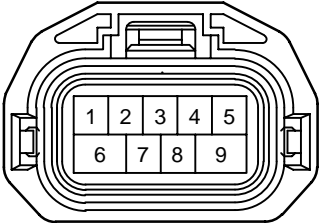
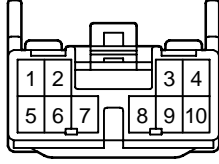
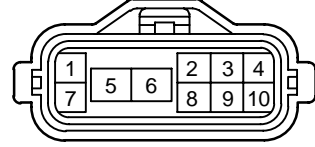
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 <p>90980-10776</p>	 <p>90980-11192</p>	 <p>90980-11643</p>
 <p>90980-11784</p>		

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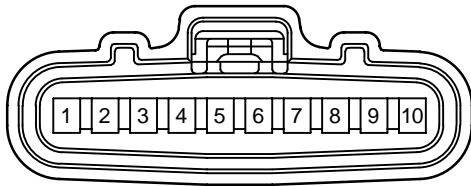
<FEMALE> 10P Waterproof Type



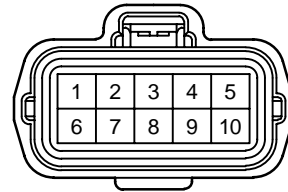
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90980-11332

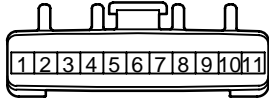


90980-11653

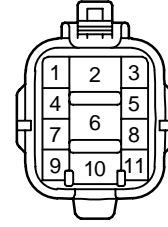


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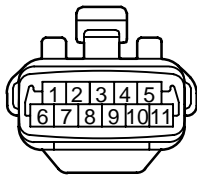
<FEMALE> 11P Waterproof Type



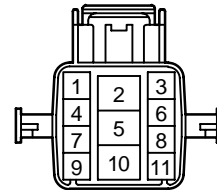
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90980-11240



90980-11257

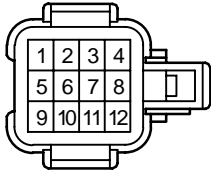


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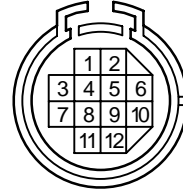


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<FEMALE> 12P Waterproof Type



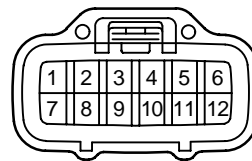
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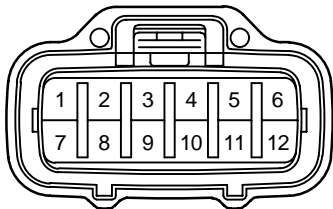
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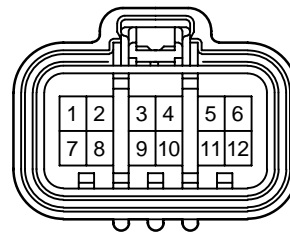
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90980-11151

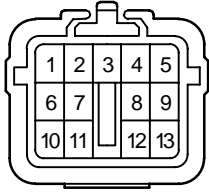


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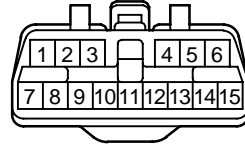


90980-11698

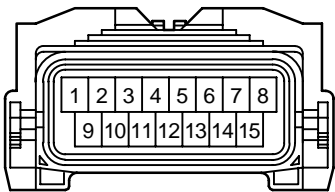
<FEMALE> 13P, 15P Waterproof Type



90980-10654



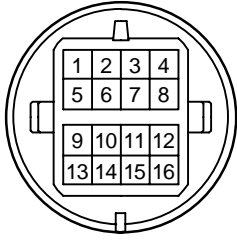
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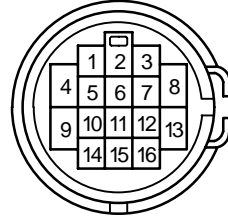
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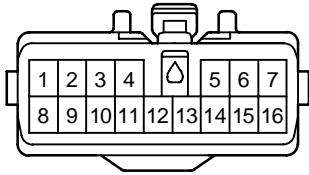
<FEMALE> 16P, 17P, 23P Waterproof Type



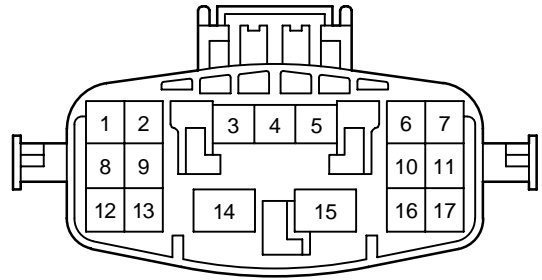
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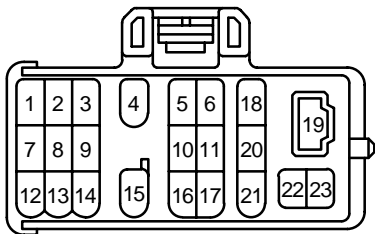
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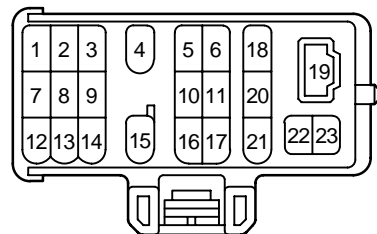
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90980-11601

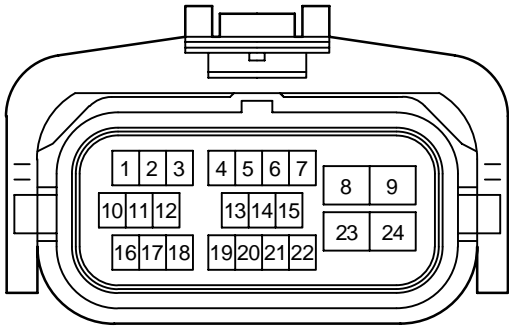


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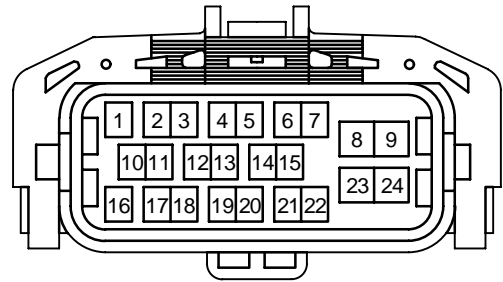


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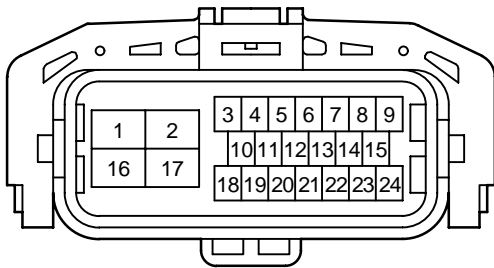
<FEMALE> 24P, 25P Waterproof Type



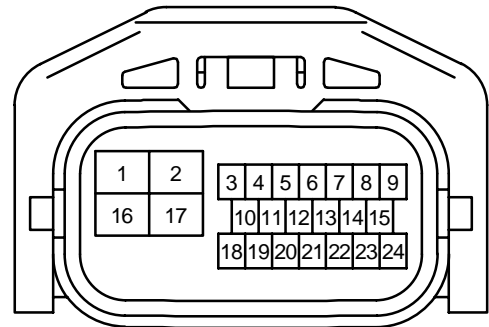
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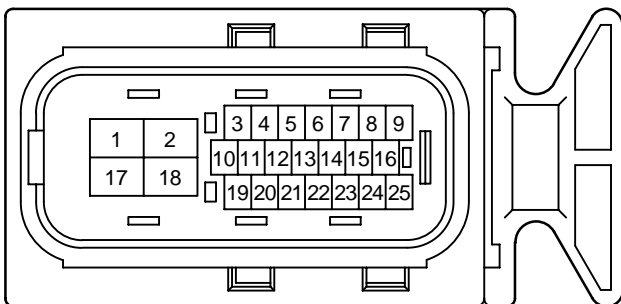
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90980-11893



90980-12116



90980-11861

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<FEMALE> 34P, 40P Waterproof Type

90980-12020

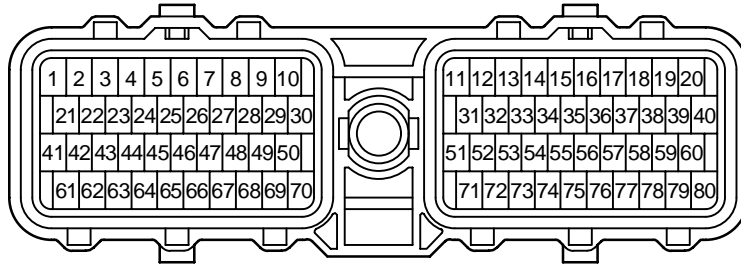
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90980-12022

90980-11215

90980-11566

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<FEMALE> 80P Waterproof Type



90980-11214

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<FEMALE> 1P Non-waterproof Type




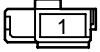











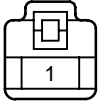




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 <p>90980-10343</p>	 <p>90980-10359</p>	 <p>90980-10363</p>	 <p>90980-10398</p>
 <p>90980-10435</p>	 <p>90980-10619</p>	 <p>90980-10652</p>	 <p>90980-10688</p>
 <p>90980-10703</p>	 <p>90980-10782</p>	 <p>90980-10786</p>	 <p>90980-10792</p>

TABLE OF HOUSING SHAPE

<FEMALE> 1P Non-waterproof Type












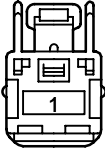
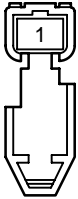
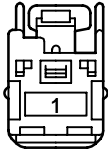
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 <p>90980-10914</p>	 <p>90980-10995</p>	 <p>90980-11147</p>	 <p>90980-11259</p>
 <p>90980-11315</p>	 <p>90980-11703</p>	 <p>90980-11738</p>	 <p>90980-11775</p>
 <p>90980-11853</p>	 <p>90980-11881</p>		



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<FEMALE> 2P Non-waterproof Type



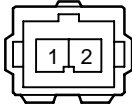
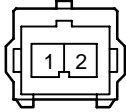
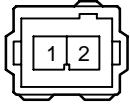

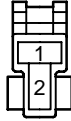
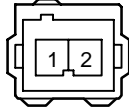
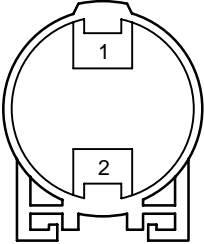
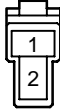
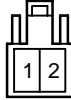




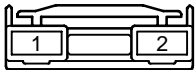


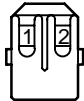
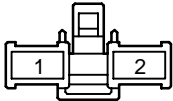
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 <p>90980-10185</p>	 <p>90980-10214</p>	 <p>90980-10256</p>	 <p>90980-10298</p>
 <p>90980-10320</p>	 <p>90980-10333</p>	 <p>90980-10345</p>	 <p>90980-10348</p>
 <p>90980-10355</p>	 <p>90980-10357</p>	 <p>90980-10362</p>	 <p>90980-10385</p>

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<FEMALE> 2P Non-waterproof Type


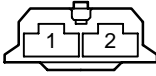













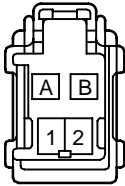
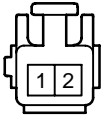
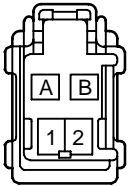
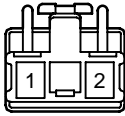
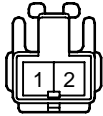
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 <p>90980-10512</p>	 <p>90980-10559</p>	 <p>90980-10621</p>	 <p>90980-10637</p>
 <p>90980-10679</p>	 <p>90980-10760</p>	 <p>90980-10783</p>	 <p>90980-10823</p>
 <p>90980-10825</p>	 <p>90980-10835</p>	 <p>90980-10850</p>	 <p>90980-10855</p>

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<FEMALE> 2P Non-waterproof Type

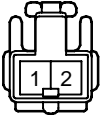
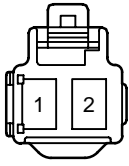

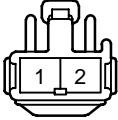




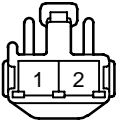


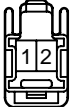
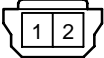


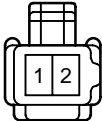
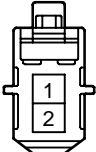


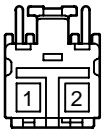
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 <p>90980-11094</p>	 <p>90980-11098</p>	 <p>90980-11148</p>	 <p>90980-11212</p>
 <p>90980-11227</p>	 <p>90980-11278</p>	 <p>90980-11306</p>	 <p>90980-11369</p>
 <p>90980-11386</p>	 <p>90980-11388</p>	 <p>90980-11396</p>	 <p>90980-11429</p>

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<FEMALE> 2P Non-waterproof Type

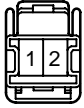
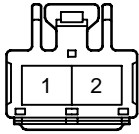

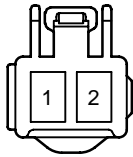
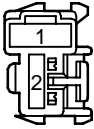
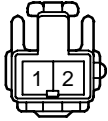
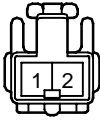
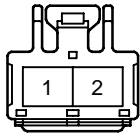
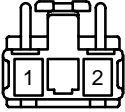

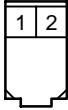
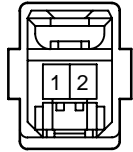
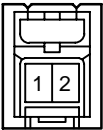
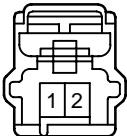


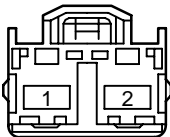
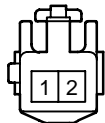
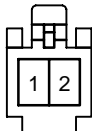

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 <p>90980-11839</p>	 <p>90980-11840</p>	 <p>90980-11862</p>	 <p>90980-11884</p>
 <p>90980-11886</p>	 <p>90980-11890</p>	 <p>90980-11918</p>	 <p>90980-11919</p>
 <p>90980-11996</p>	 <p>90980-12014</p>	 <p>90980-12039</p>	 <p>90980-12063</p>

TABLE OF HOUSING SHAPE

<FEMALE> 2P Non-waterproof Type



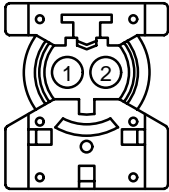
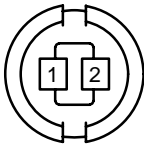


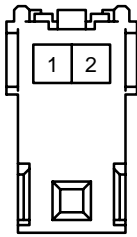
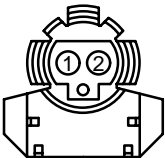
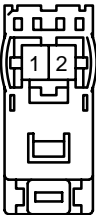
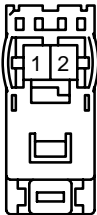
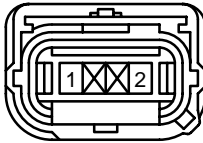
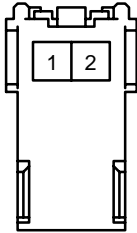
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 <p>90980-12219 90980-12242</p>	 <p>90980-12224 90980-12243</p>	 <p>90980-12241</p>	 <p>90980-12253</p>

TABLE OF HOUSING SHAPE

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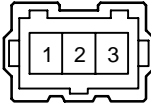
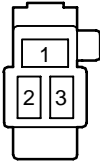
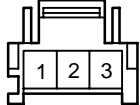
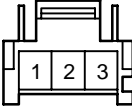
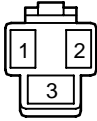
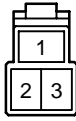

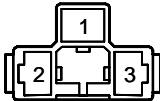
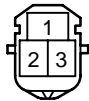
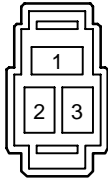
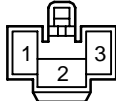

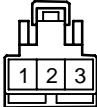
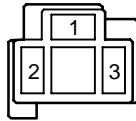


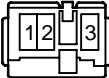
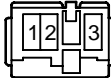
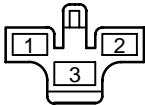

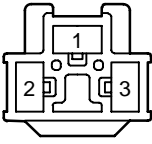
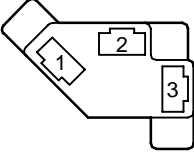
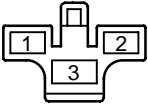
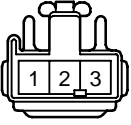
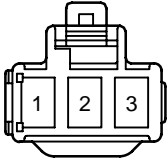
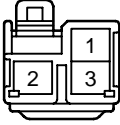

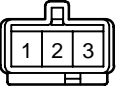
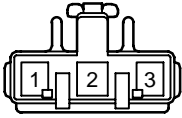

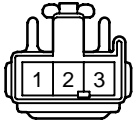
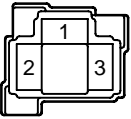
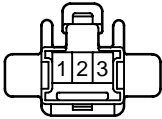
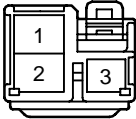

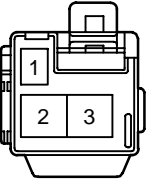
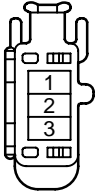
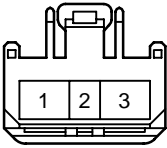
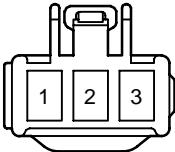
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 <p>90980-10228</p>	 <p>90980-10232</p>	 <p>90980-10234</p>	 <p>90980-10258</p>
 <p>90980-10365</p>	 <p>90980-10420</p>	 <p>90980-10428</p>	 <p>90980-10464</p>
 <p>90980-10483</p>	 <p>90980-10489</p>	 <p>90980-10490</p>	 <p>90980-10618</p>

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<FEMALE> 3P Non-waterproof Type

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 <p>90980-10908</p>	 <p>90980-10956</p>	 <p>90980-10980</p>	 <p>90980-11053</p>
 <p>90980-11071</p>	 <p>90980-11079</p>	 <p>90980-11251</p>	 <p>90980-11296</p>
 <p>90980-11314</p>	 <p>90980-11336</p>	 <p>90980-11387</p>	 <p>90980-11471</p>
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<FEMALE> 3P Non-waterproof Type

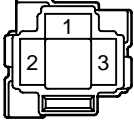
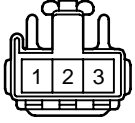
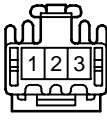
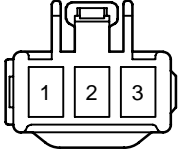
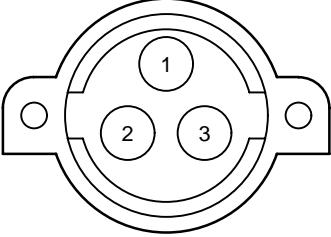
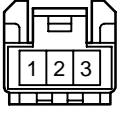
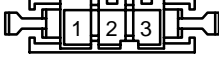
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<FEMALE> 4P Non-waterproof Type

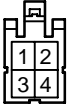

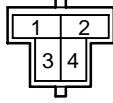
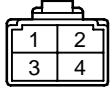
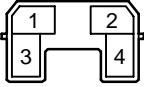
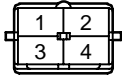
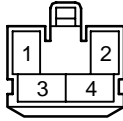
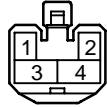
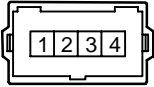
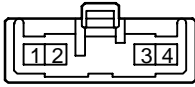

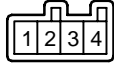


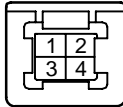

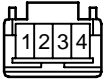
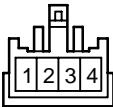


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 <p>90980-10378</p>	 <p>90980-10400</p>	 <p>90980-10467</p>	 <p>90980-10484</p>
 <p>90980-10504</p>	 <p>90980-10514</p>	 <p>90980-10515</p>	 <p>90980-10601</p>
 <p>90980-10645</p>	 <p>90980-10692</p>	 <p>90980-10716</p>	 <p>90980-10717</p>

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<FEMALE> 4P Non-waterproof Type

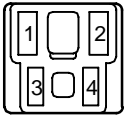
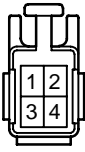
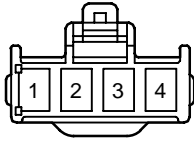
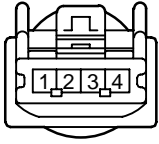
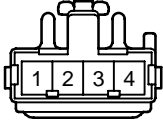
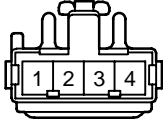
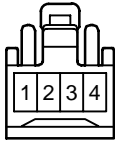
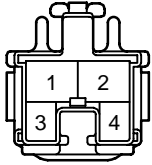
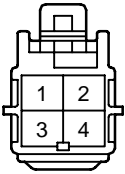
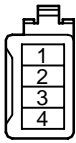
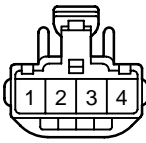
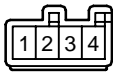
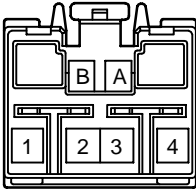
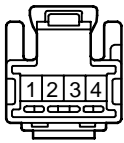
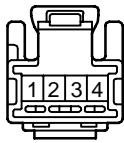
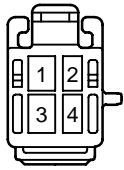
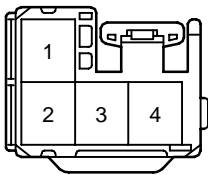
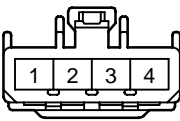
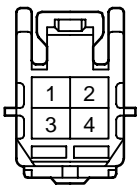
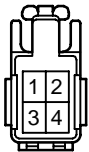
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 <p>90980-11662</p>	 <p>90980-11676</p>	 <p>90980-11742</p>	 <p>90980-11766</p>

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<FEMALE> 4P Non-waterproof Type

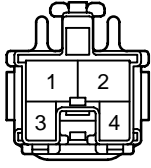
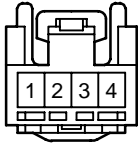
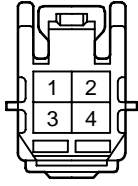
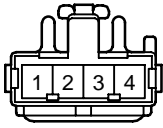

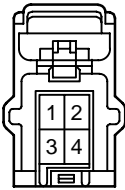
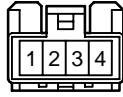
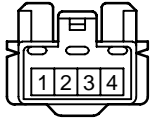
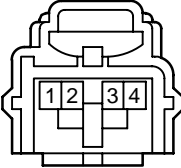
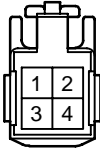
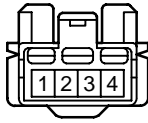
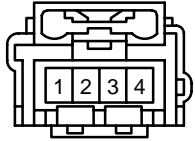
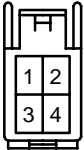
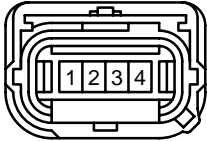
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<FEMALE> 5P Non-waterproof Type

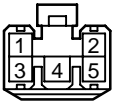
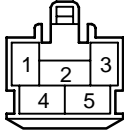
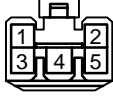
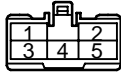
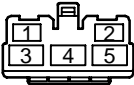
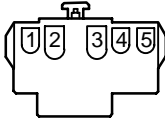
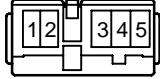
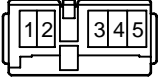
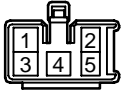
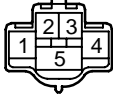
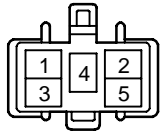

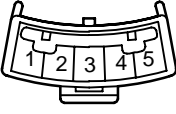


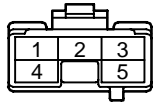
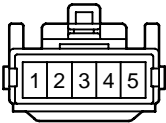
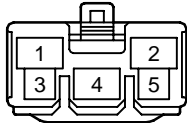
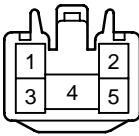
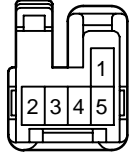
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 <p>90980-10509</p>	 <p>90980-10520</p>	 <p>90980-10610</p>	 <p>90980-10631</p>
 <p>90980-10644</p>	 <p>90980-10659</p>	 <p>90980-10713</p>	 <p>90980-10718</p>
 <p>90980-10789</p>	 <p>90980-10888</p>	 <p>90980-10986</p>	 <p>90980-11319</p>

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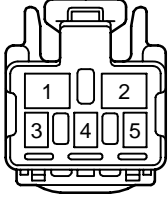
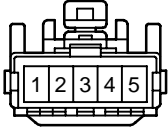
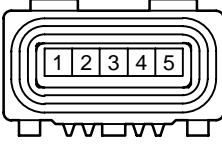
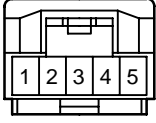
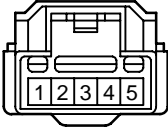
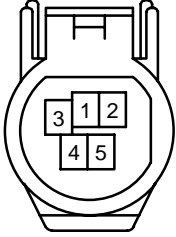
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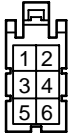
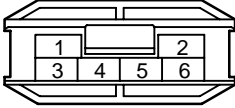
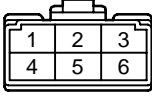
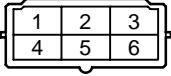
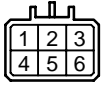
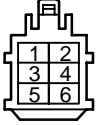
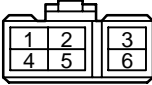

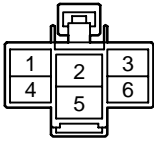
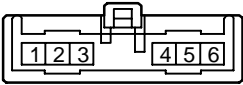
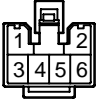
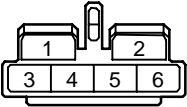
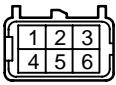


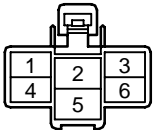
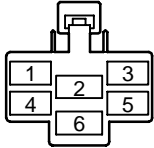

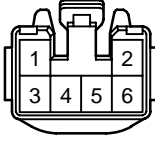
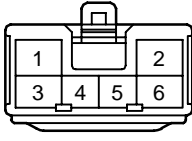
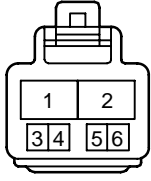
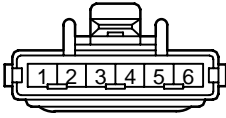
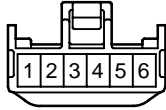
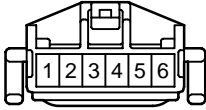
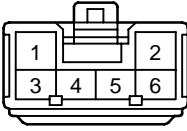
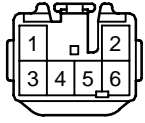
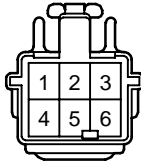
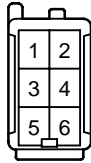
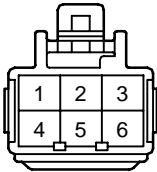
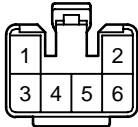
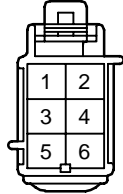

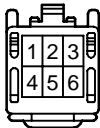
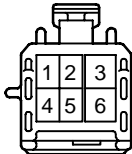
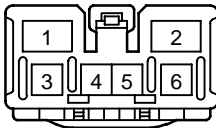
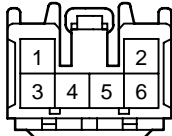
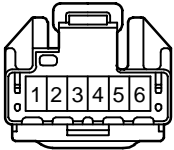
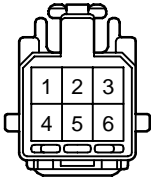
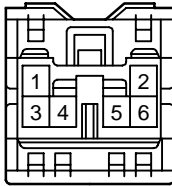
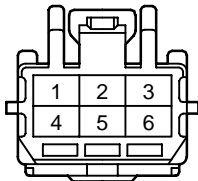
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 <p>90980-10604</p>	 <p>90980-10605</p>	 <p>90980-10672</p>	 <p>90980-10673</p>
 <p>90980-10766</p>	 <p>90980-10785</p>	 <p>90980-10797</p>	 <p>90980-10889</p>

TABLE OF HOUSING SHAPE

<FEMALE> 6P Non-waterproof Type

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 <p>90980-10976</p>	 <p>90980-10996</p>	 <p>90980-11001</p>	 <p>90980-11011</p>
 <p>90980-11091</p>	 <p>90980-11280</p>	 <p>90980-11297</p>	 <p>90980-11326</p>
 <p>90980-11488</p>	 <p>90980-11493</p>	 <p>90980-11552</p>	 <p>90980-11583</p>
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<FEMALE> 6P Non-waterproof Type

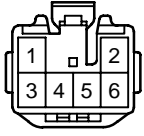
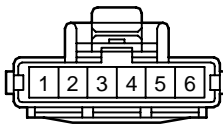
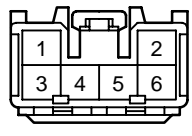
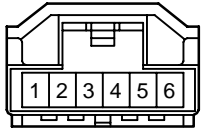
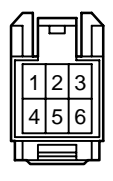
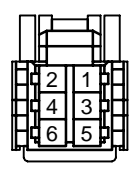
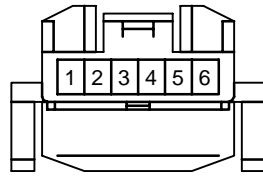
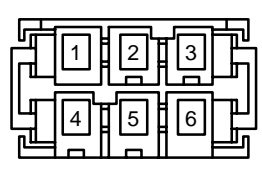
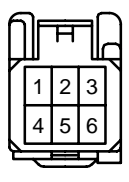
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<FEMALE> 7P Non-waterproof Type

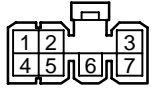
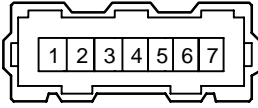
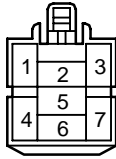
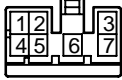
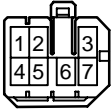
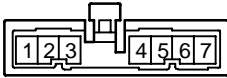
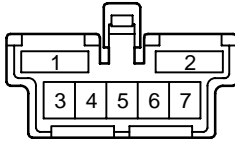
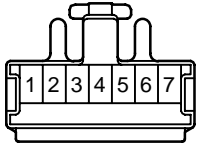
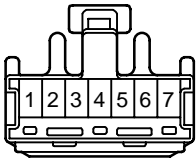
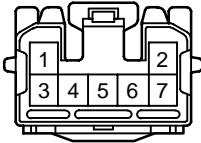
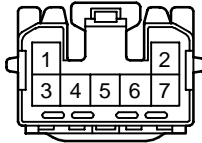
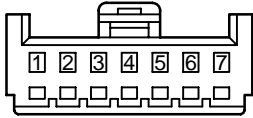
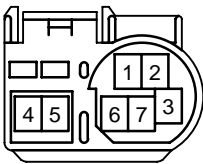
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 <p>90980-11340</p>	 <p>90980-11529</p>	 <p>90980-11740</p>	 <p>90980-11794</p>
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TABLE OF HOUSING SHAPE

<FEMALE> 8P Non-waterproof Type

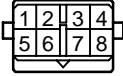
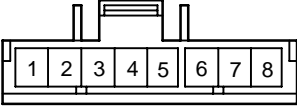
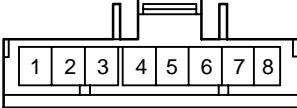
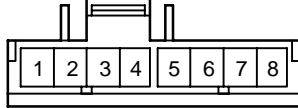
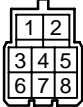
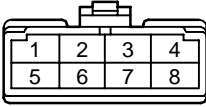
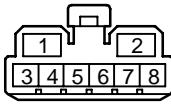
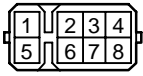
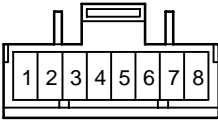
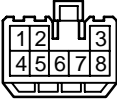
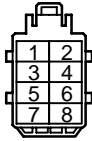
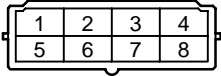
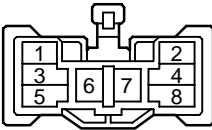
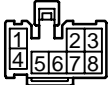
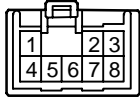
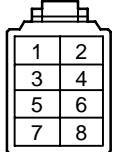
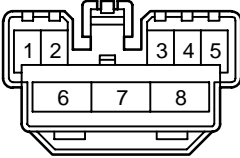
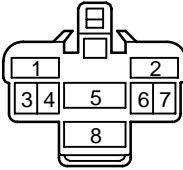
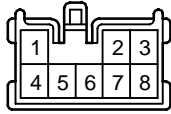
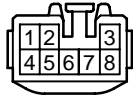
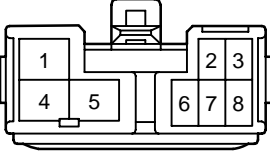
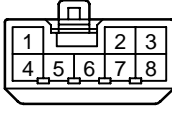
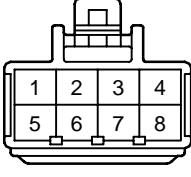
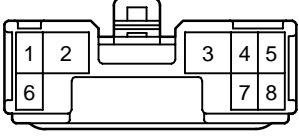
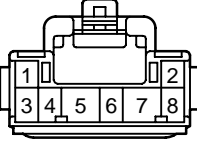
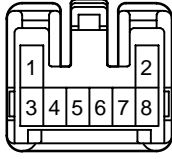
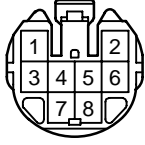
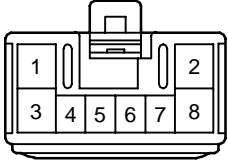
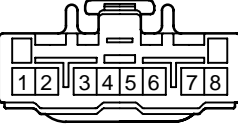
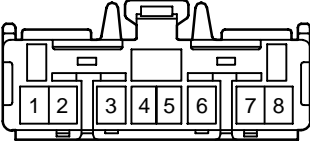

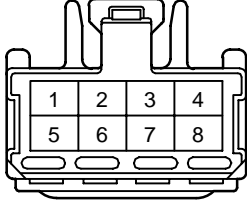
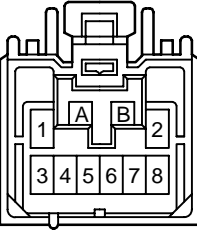
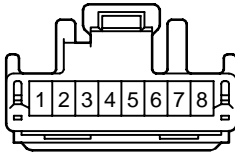
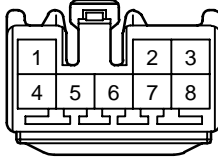
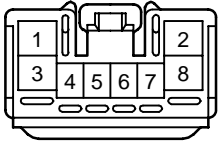
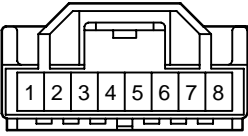
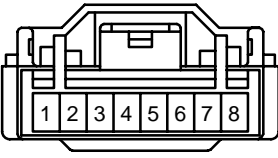
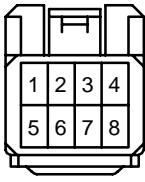
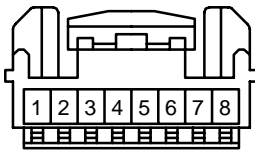
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 <p>90980-10301</p>	 <p>90980-10321</p>	 <p>90980-10336</p>	 <p>90980-10358</p>
 <p>90980-10404</p>	 <p>90980-10419</p>	 <p>90980-10431</p>	 <p>90980-10449</p>
 <p>90980-10463</p>	 <p>90980-10517</p>	 <p>90980-10523</p>	 <p>90980-10799</p>

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<FEMALE> 8P Non-waterproof Type

 <p>90980-10877 90980-11439</p>	 <p>90980-10926</p>	 <p>90980-11092</p>	 <p>90980-11130</p>
 <p>90980-11279</p>	 <p>90980-11321</p>	 <p>90980-11354</p>	 <p>90980-11362</p>
 <p>90980-11397</p>	 <p>90980-11459</p>	 <p>90980-11533</p>	 <p>90980-11615</p>
 <p>90980-11630</p>	 <p>90980-11633</p>	 <p>90980-11686</p>	 <p>90980-11701</p>
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<FEMALE> 8P Non-waterproof Type

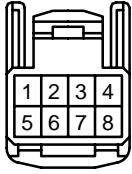
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TABLE OF HOUSING SHAPE

<FEMALE> 9P Non-waterproof Type

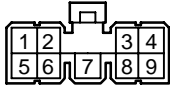
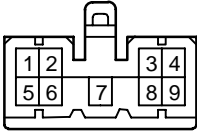
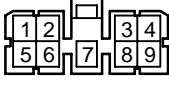
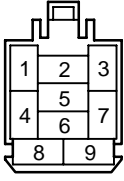
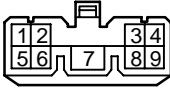
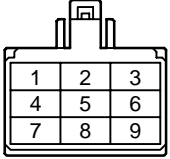
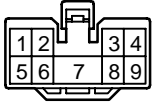
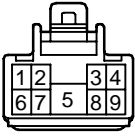
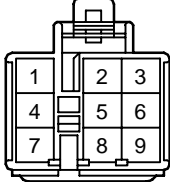
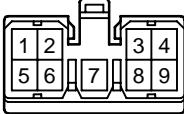
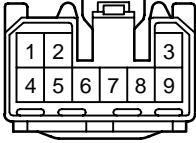
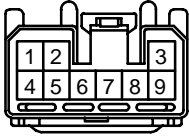
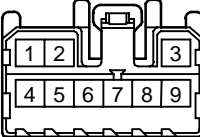
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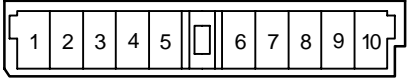
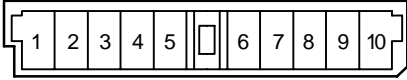
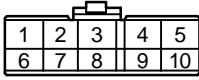
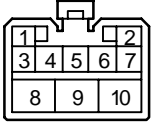
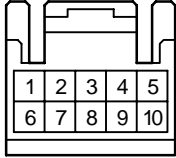
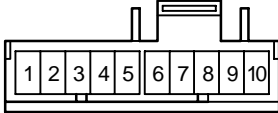
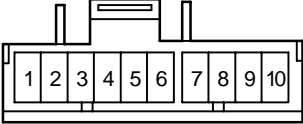
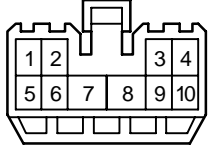
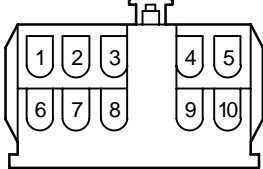
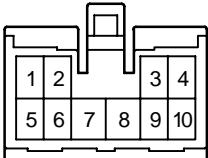
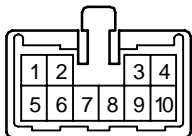
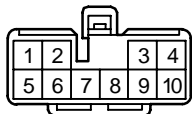
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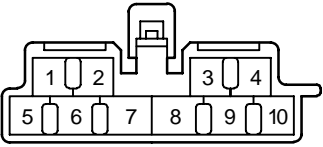
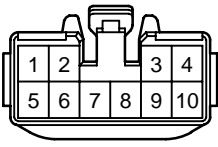
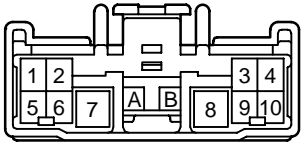
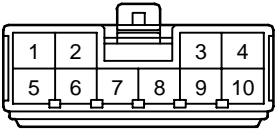
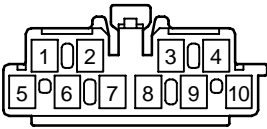
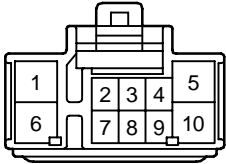
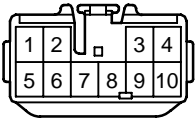
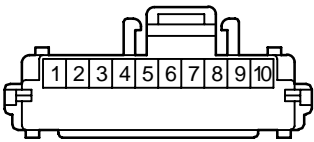
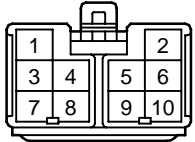
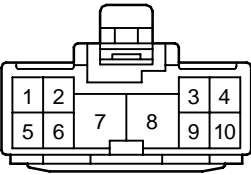
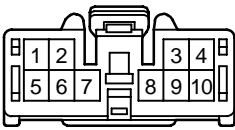
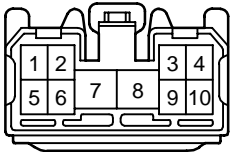
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 <p>90980-10997</p>	 <p>90980-11116</p>	 <p>90980-11276</p>
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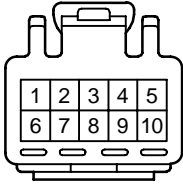
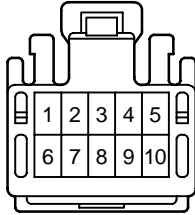
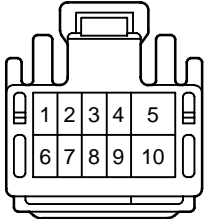
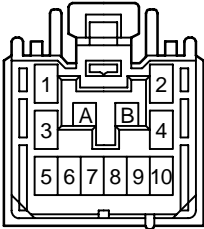
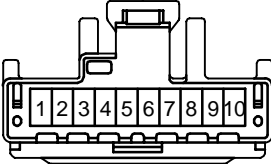
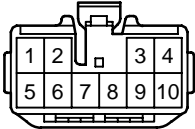
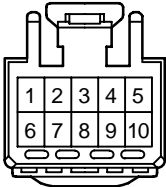
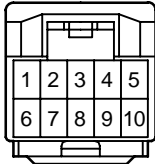

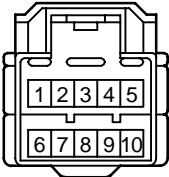
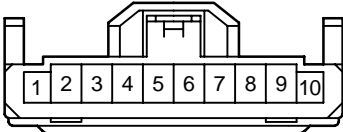

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 <p>90980-11817</p>	 <p>90980-11923</p>	 <p>90980-11924</p>
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<FEMALE> 10P Non-waterproof Type

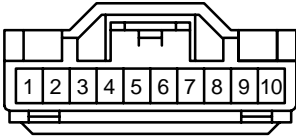
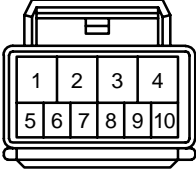
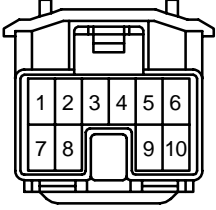
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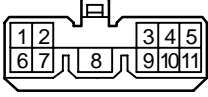
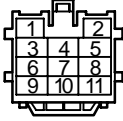
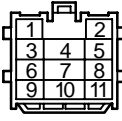
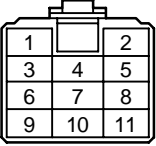
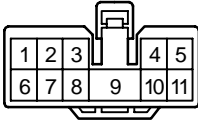
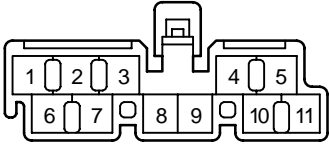

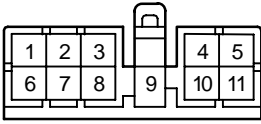
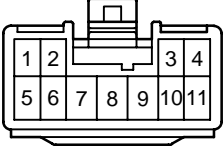
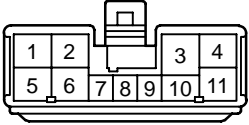
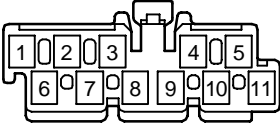
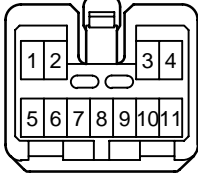
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 <p>90980-10727</p>	 <p>90980-10781</p>	 <p>90980-10830</p>
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<FEMALE> 11P Non-waterproof Type

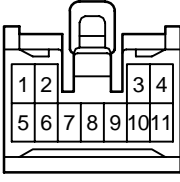
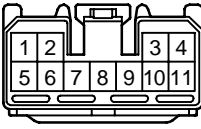
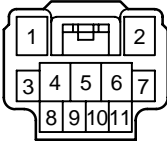
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<FEMALE> 12P Non-waterproof Type

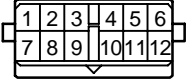
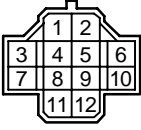
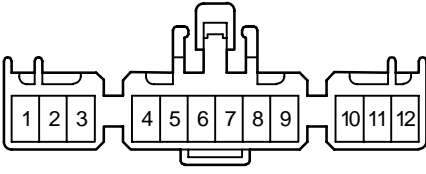
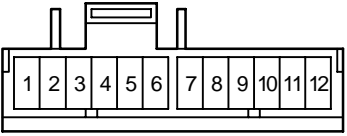
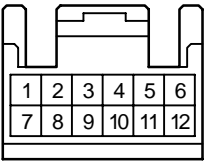
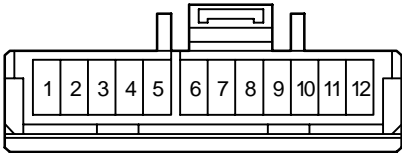
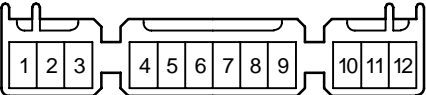
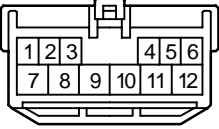
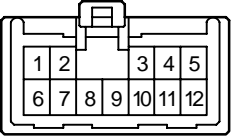
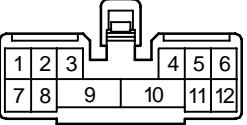
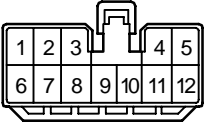
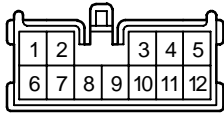
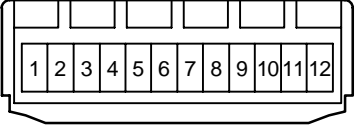
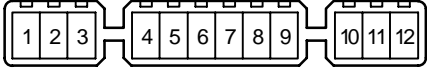
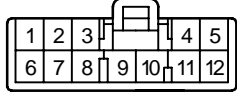
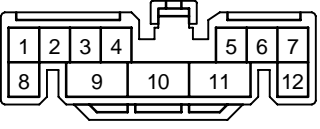
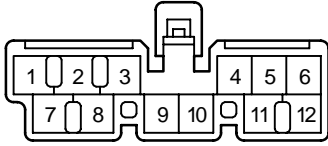
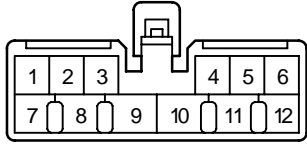
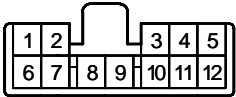
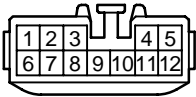
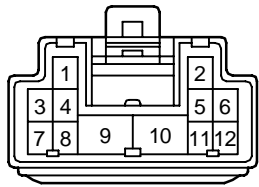
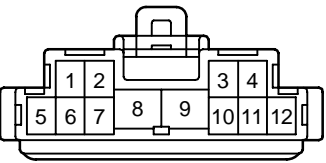
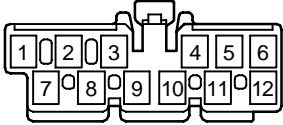
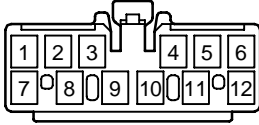
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 <p>90980-10397</p>	 <p>90980-10406</p>	 <p>90980-10408</p>
 <p>90980-10421</p>	 <p>90980-10432</p>	 <p>90980-10524</p>

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<FEMALE> 12P Non-waterproof Type

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 <p>90980-10714</p>	 <p>90980-10724</p>	 <p>90980-10725</p>
 <p>90980-10743</p>	 <p>90980-10803</p>	 <p>90980-10879</p>
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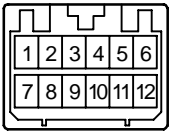
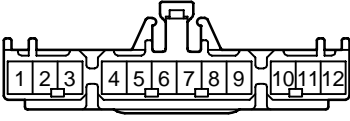
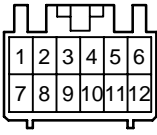
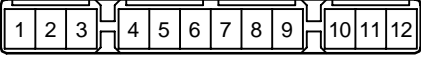
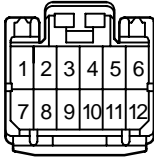
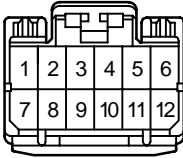
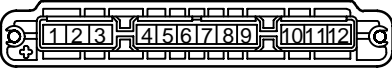
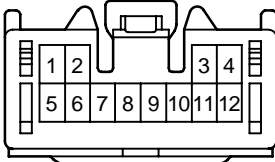
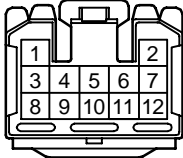
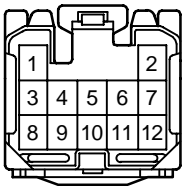
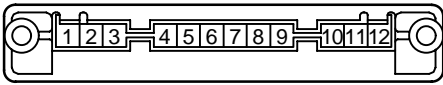
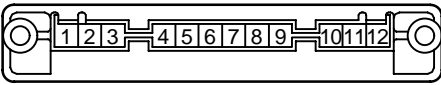
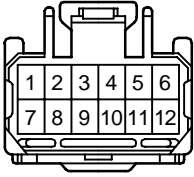
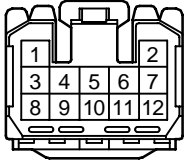
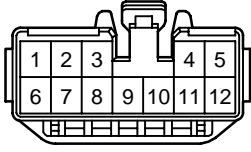
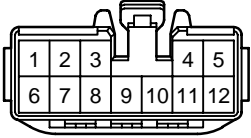
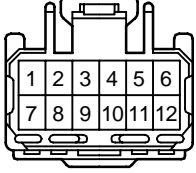
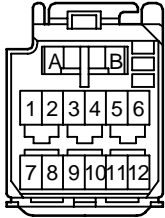
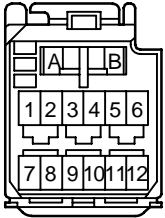
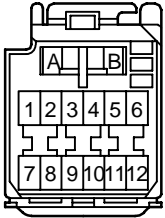
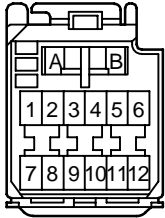
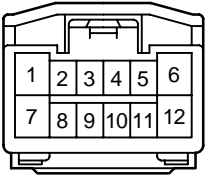
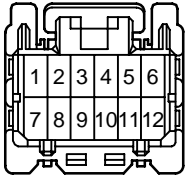
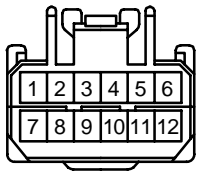
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 <p>90980-11453</p>	 <p>90980-11475</p>	 <p>90980-11531</p>
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<FEMALE> 12P Non-waterproof Type

 <p>90980-11661</p>	 <p>90980-11693</p>	 <p>90980-11720</p>
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 <p>90980-11869</p>	 <p>90980-11871</p>	 <p>90980-11873</p>
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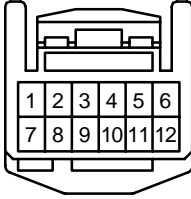
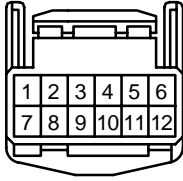
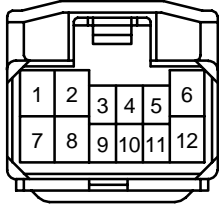
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<FEMALE> 13P Non-waterproof Type

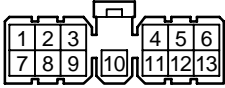
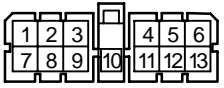
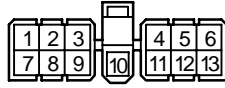
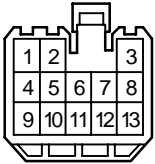
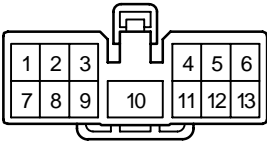
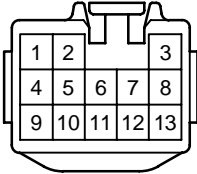
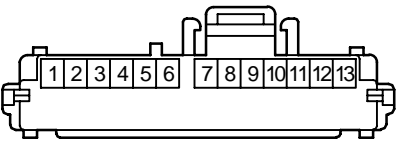
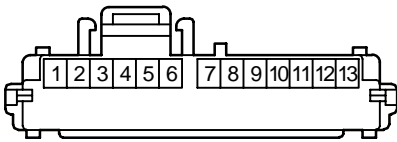
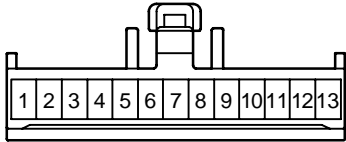
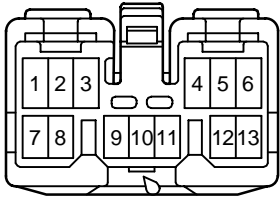
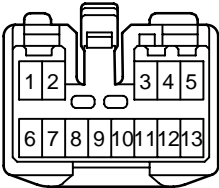
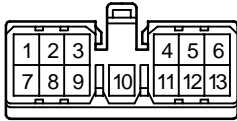
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 <p>90980-11114</p>	 <p>90980-11115</p>	 <p>90980-11199</p>
 <p>90980-11350</p>	 <p>90980-11394</p>	 <p>90980-11478</p>

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<FEMALE> 13P Non-waterproof Type

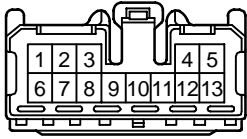
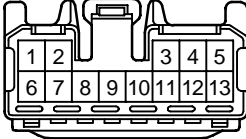
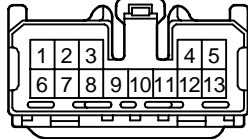
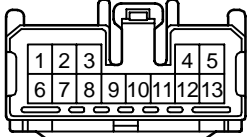
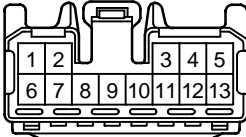
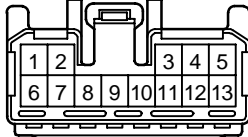
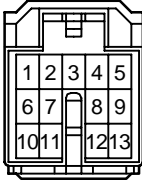
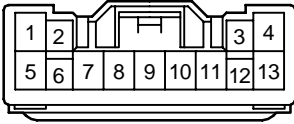
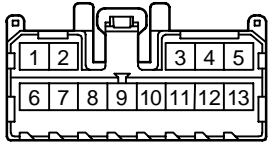
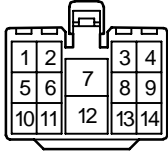
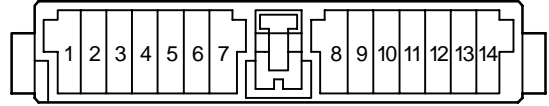
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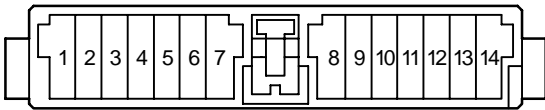
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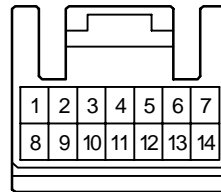
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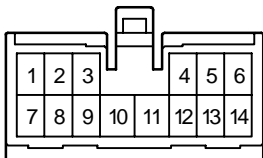
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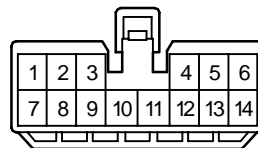
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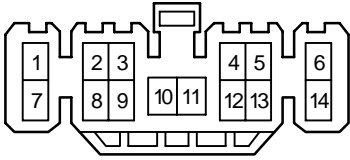


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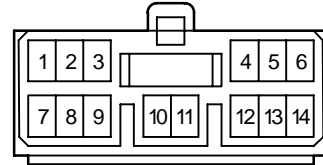


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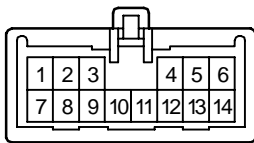
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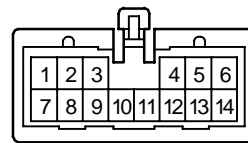
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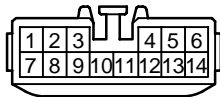
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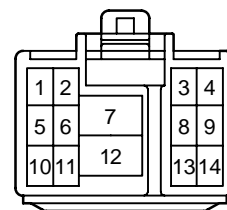
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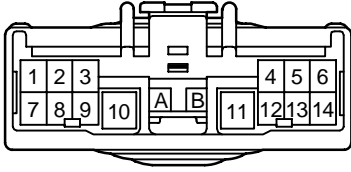
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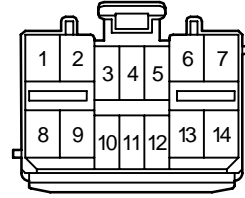
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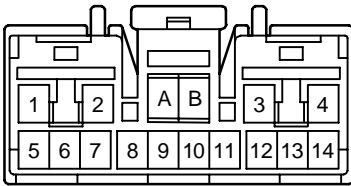
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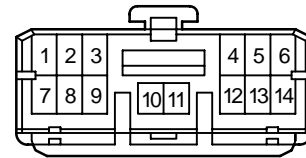
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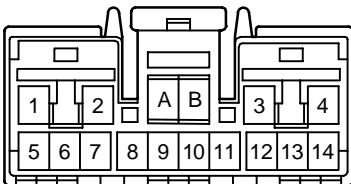
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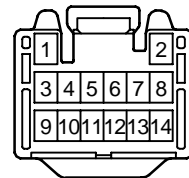
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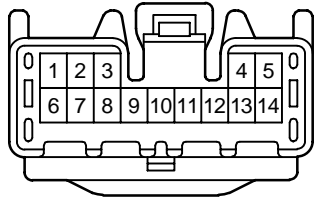


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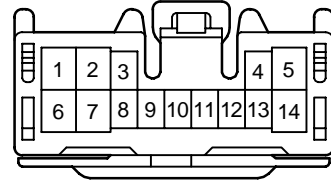


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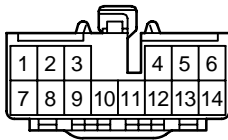
<FEMALE> 14P Non-waterproof Type



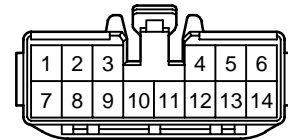
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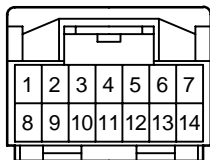
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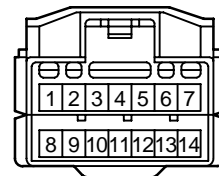
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90980-11805



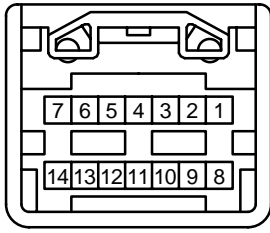
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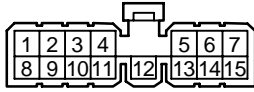
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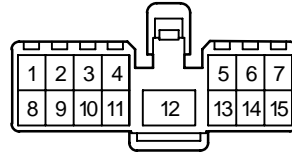


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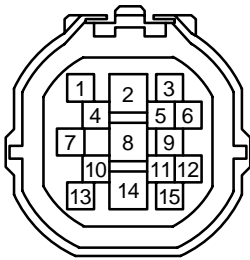
<FEMALE> 15P Non-waterproof Type



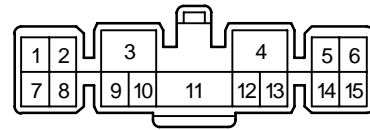
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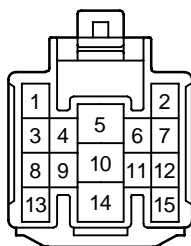
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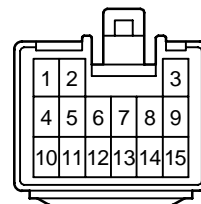
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90980-10563



90980-10815

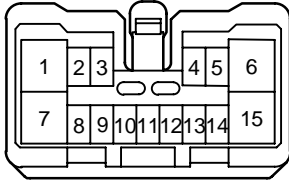


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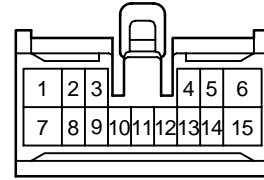


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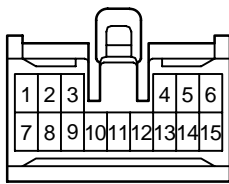
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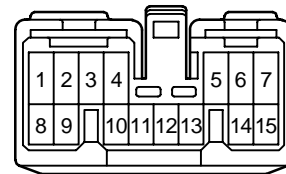
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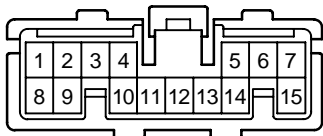
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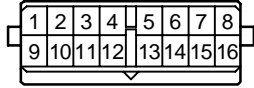


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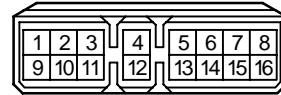


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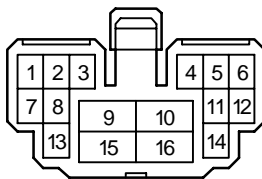
<FEMALE> 16P Non-waterproof Type



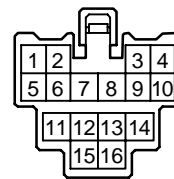
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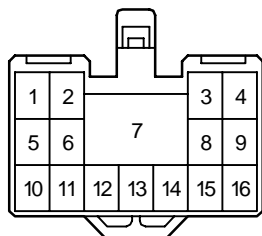
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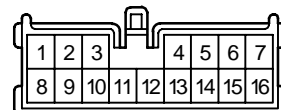
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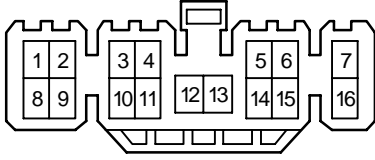
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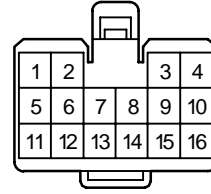
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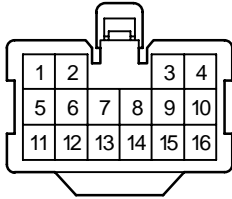
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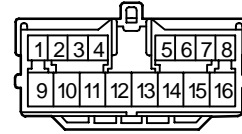
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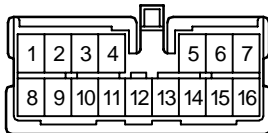
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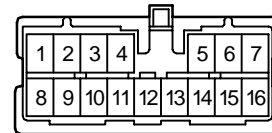
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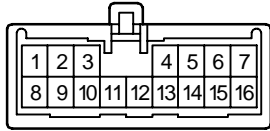


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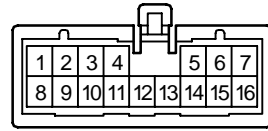


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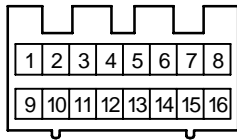
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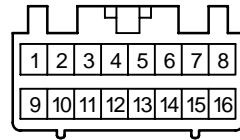
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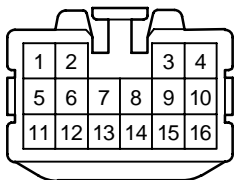
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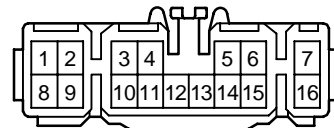
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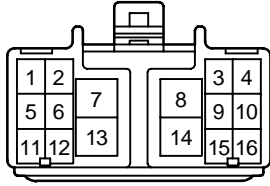
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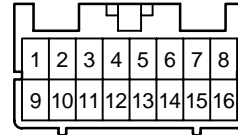
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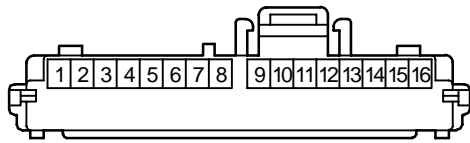
<FEMALE> 16P Non-waterproof Type



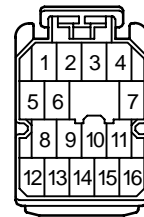
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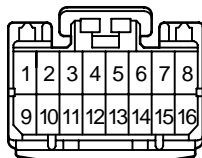
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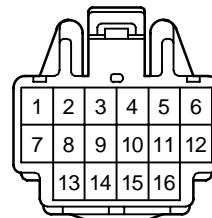
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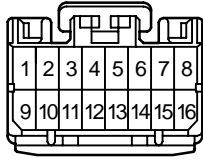


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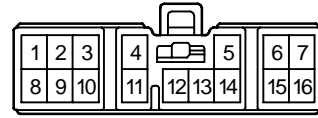


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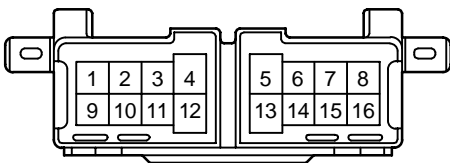
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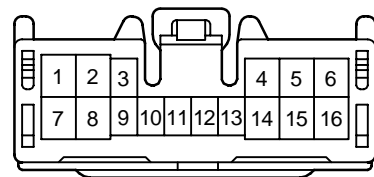
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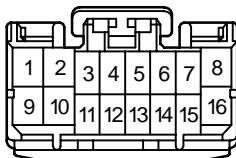
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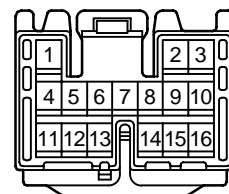
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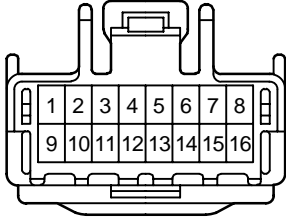
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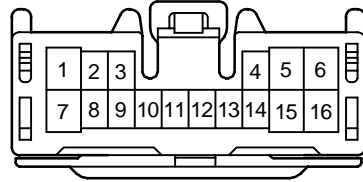
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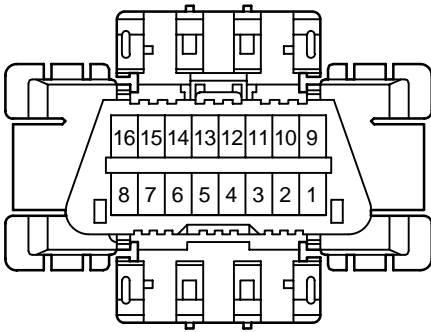
<FEMALE> 16P Non-waterproof Type



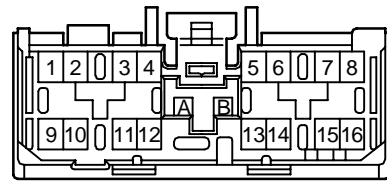
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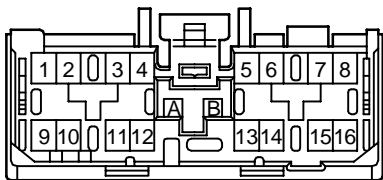
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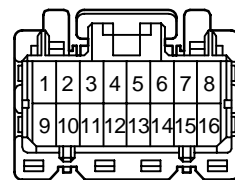
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90980-11681

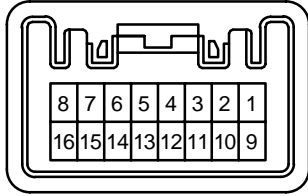


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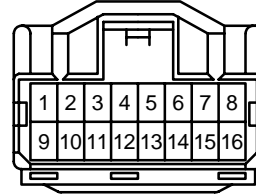


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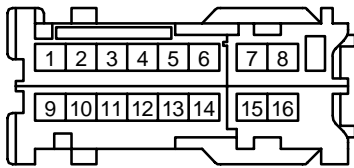
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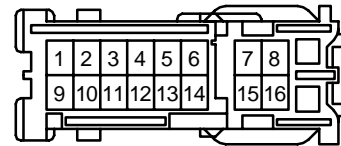
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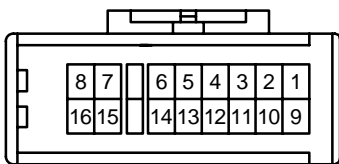
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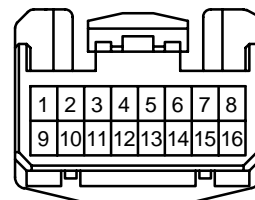
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90980-12104



90980-12105

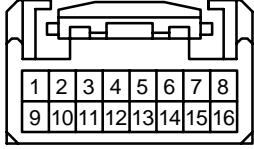


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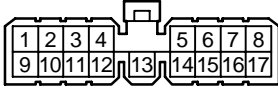
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<FEMALE> 16P Non-waterproof Type

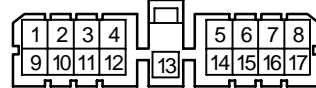


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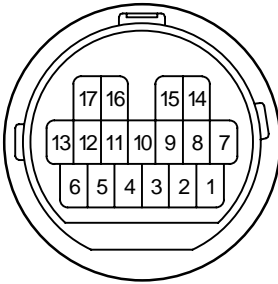
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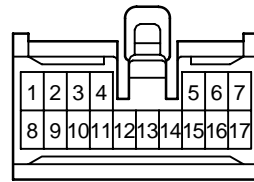
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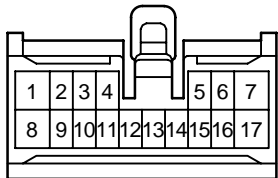
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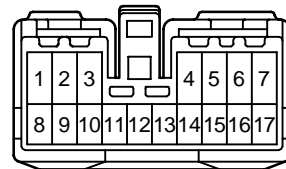
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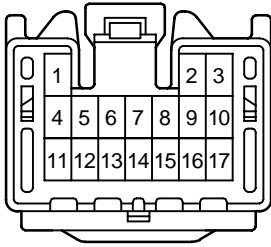
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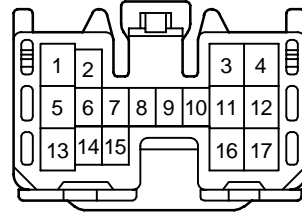
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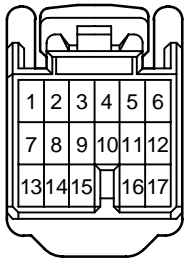
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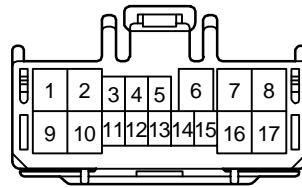
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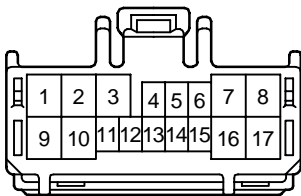
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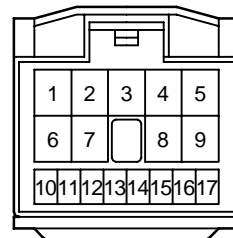
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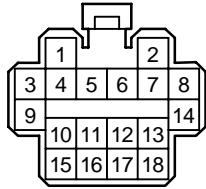
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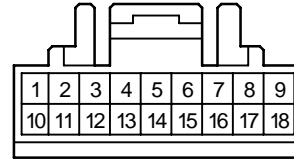
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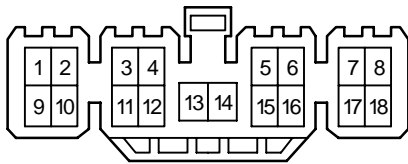
<FEMALE> 18P Non-waterproof Type



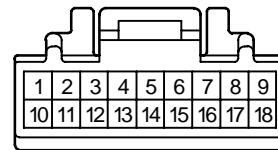
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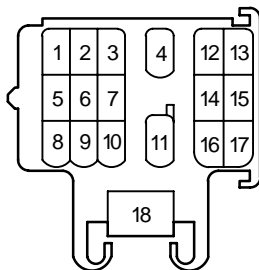
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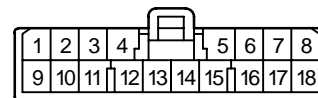
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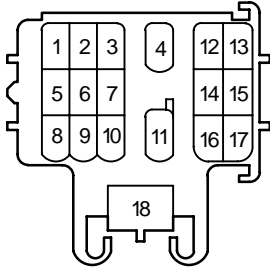
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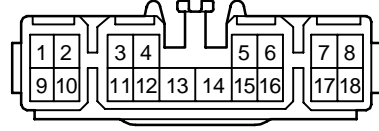
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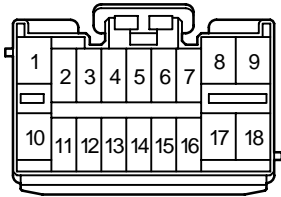
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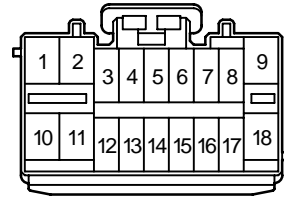
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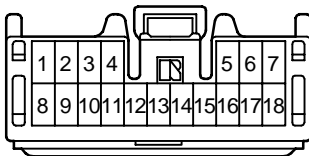
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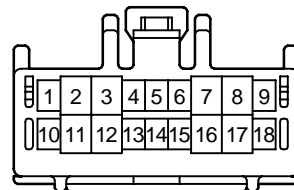
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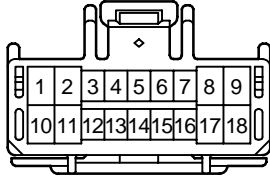


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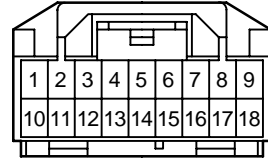


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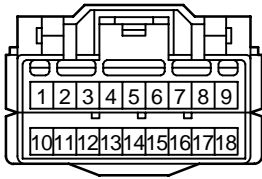
<FEMALE> 18P Non-waterproof Type



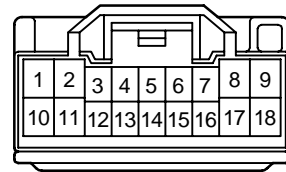
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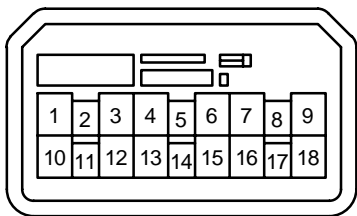
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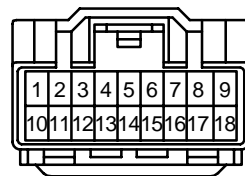
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90980-11973



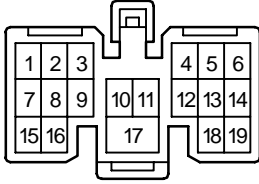
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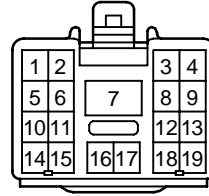
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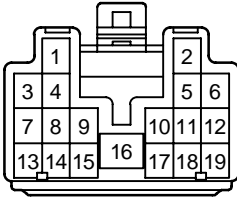
<FEMALE> 19P Non-waterproof Type



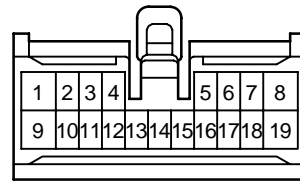
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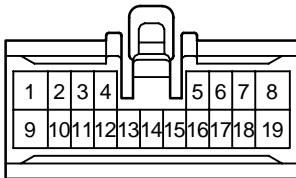
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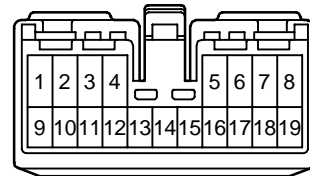
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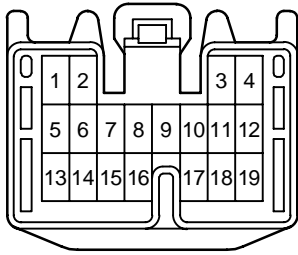


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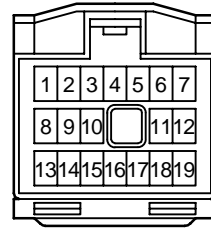


90980-11377

<FEMALE> 19P Non-waterproof Type



90980-11571

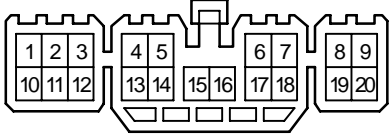


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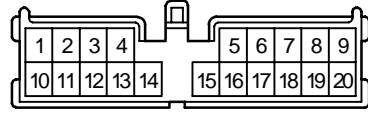


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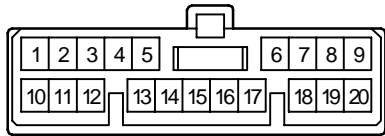
<FEMALE> 20P Non-waterproof Type



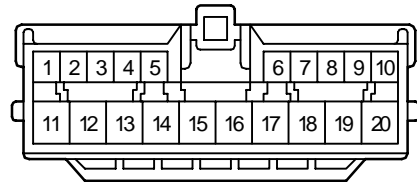
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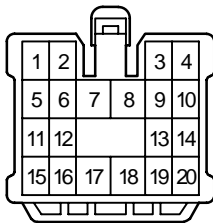
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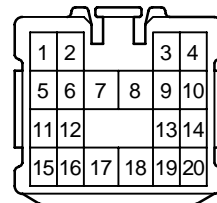
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90980-10612

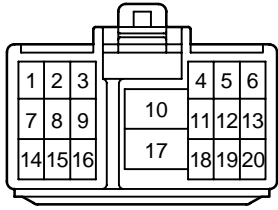


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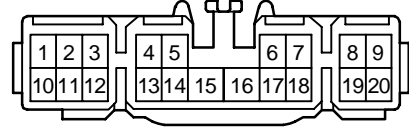


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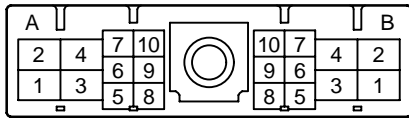
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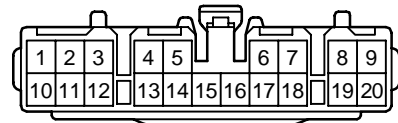
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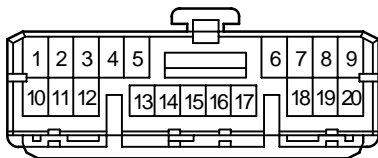
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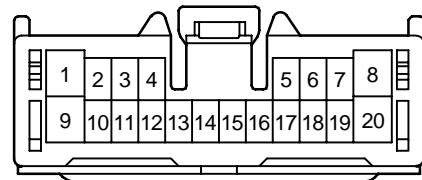
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90980-11260



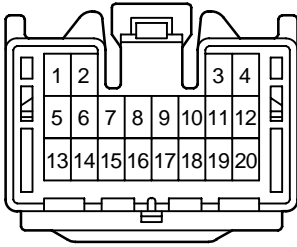
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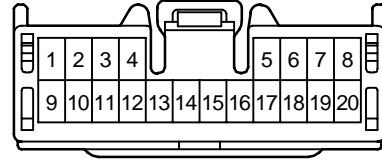
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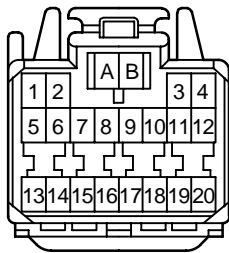
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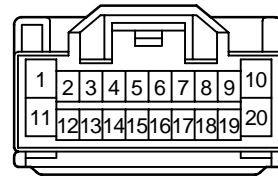
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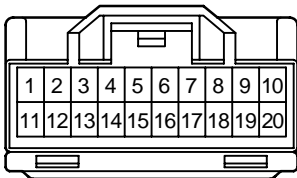
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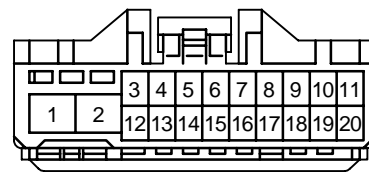
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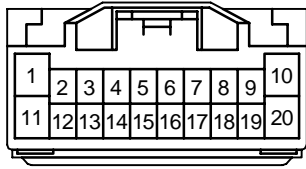


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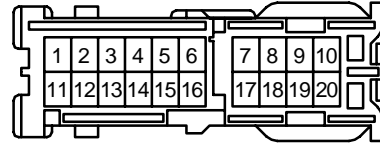


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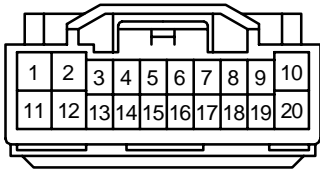
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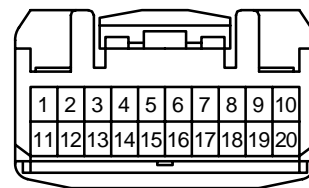
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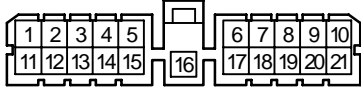
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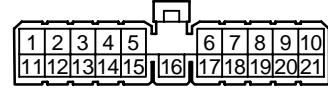
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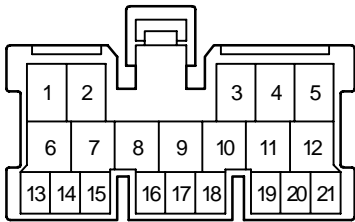
<FEMALE> 21P Non-waterproof Type



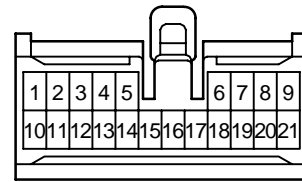
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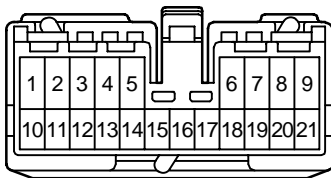
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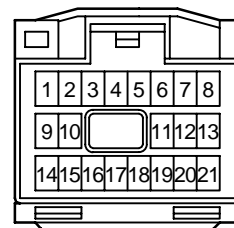
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90980-11125

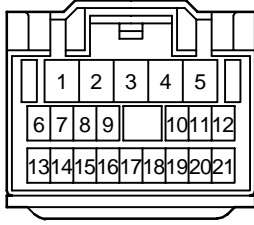


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90980-11956

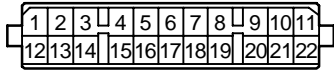
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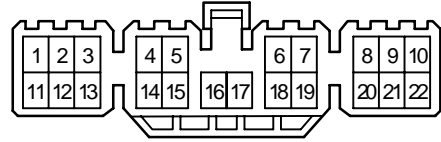
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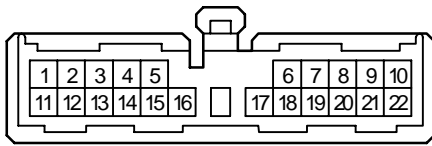
<FEMALE> 22P Non-waterproof Type



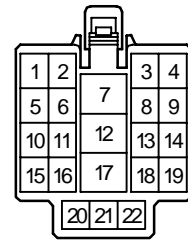
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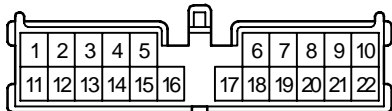
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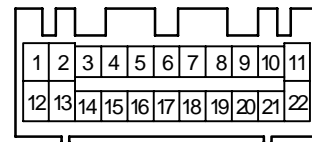
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90980-10458

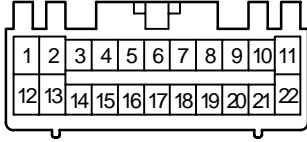


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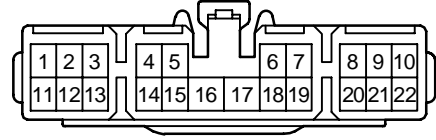


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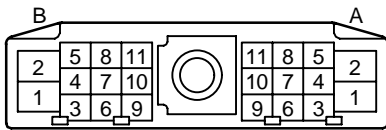
<FEMALE> 22P Non-waterproof Type



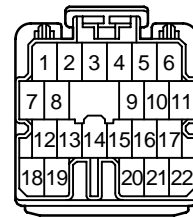
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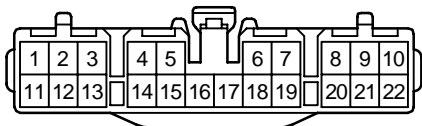
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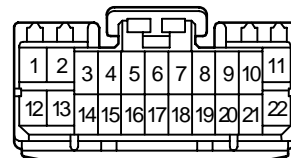
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90980-11220



90980-11238

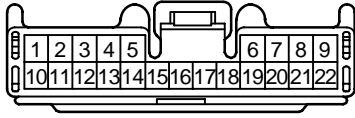


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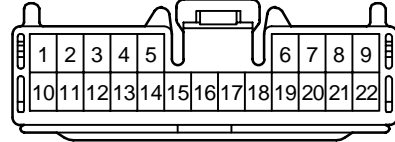


TABLE OF HOUSING SHAPE

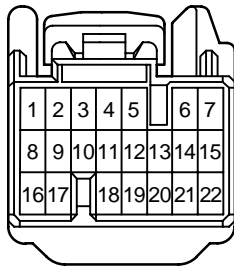
<FEMALE> 22P Non-waterproof Type



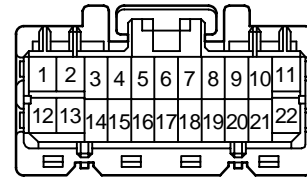
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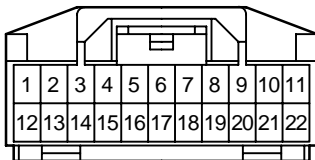
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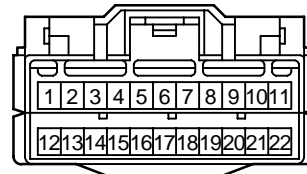
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90980-11788

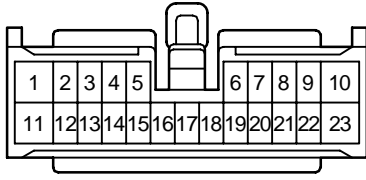


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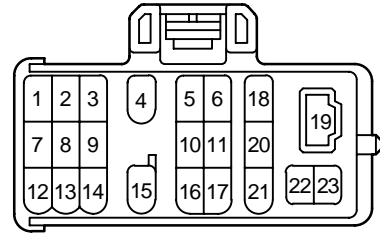


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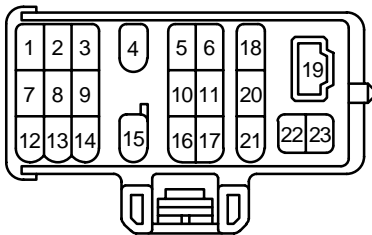
<FEMALE> 23P Non-waterproof Type



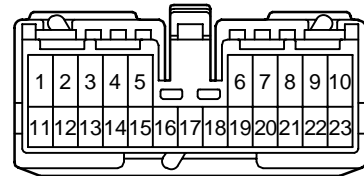
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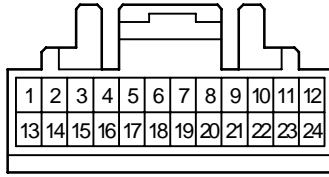
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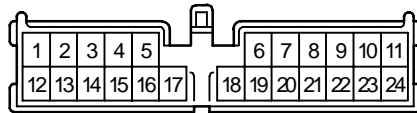
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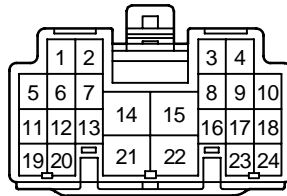
<FEMALE> 24P Non-waterproof Type



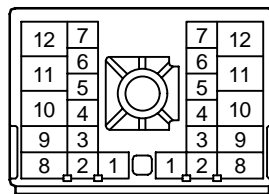
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90980-10585



90980-10881

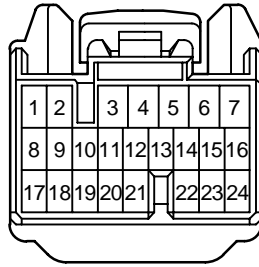


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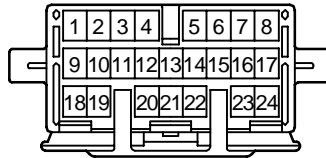
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TABLE OF HOUSING SHAPE

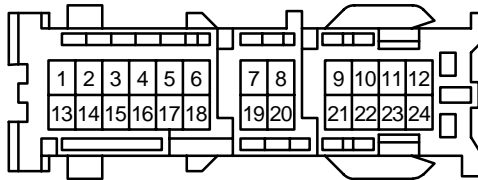
<FEMALE> 24P Non-waterproof Type



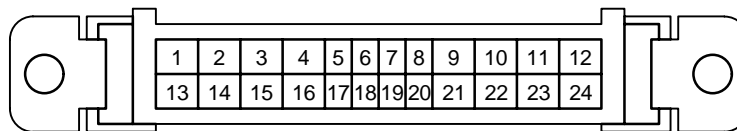
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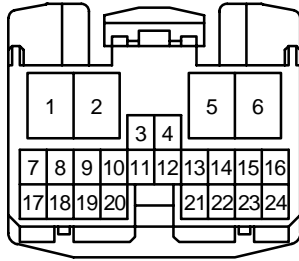
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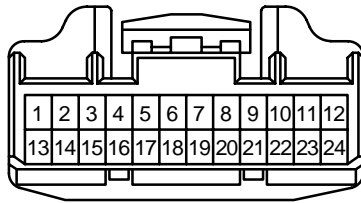
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<FEMALE> 24P Non-waterproof Type



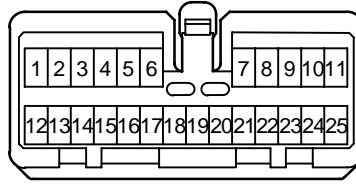
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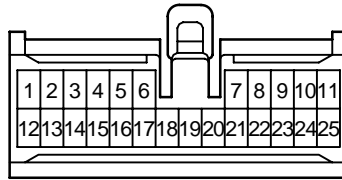
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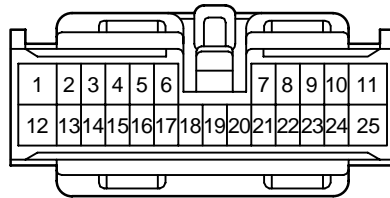
<FEMALE> 25P Non-waterproof Type



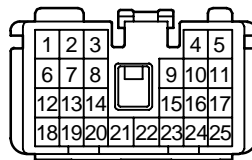
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90980-11055



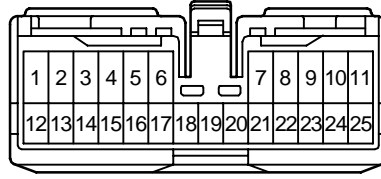
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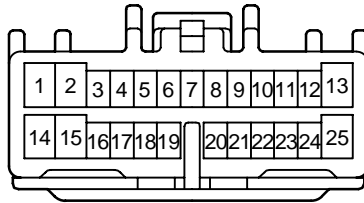
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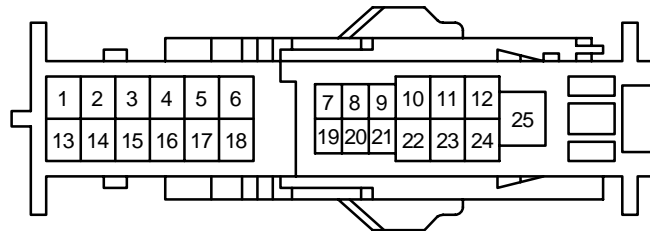
<FEMALE> 25P Non-waterproof Type



90980-11404



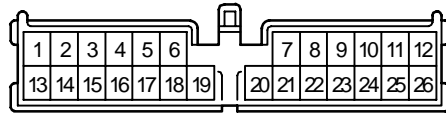
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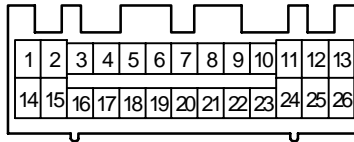
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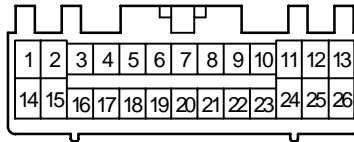
<FEMALE> 26P Non-waterproof Type



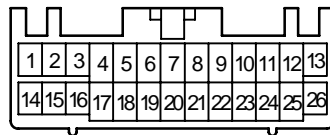
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90980-10739



90980-10763

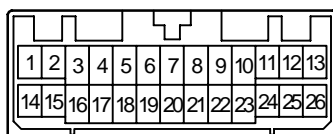


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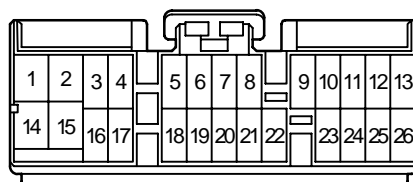


## TABLE OF HOUSING SHAPE

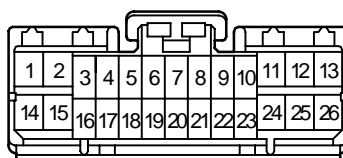
## &lt;FEMALE&gt; 26P Non-waterproof Type



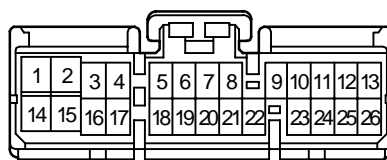
90980-10925



90980-11234



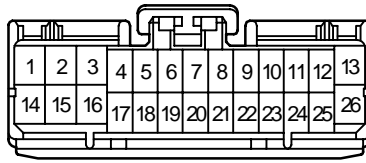
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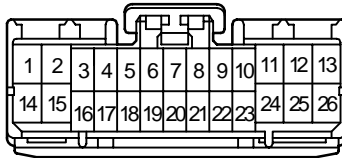
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TABLE OF HOUSING SHAPE

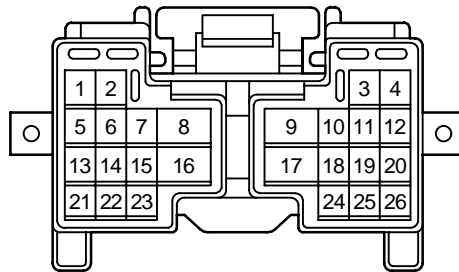
<FEMALE> 26P Non-waterproof Type



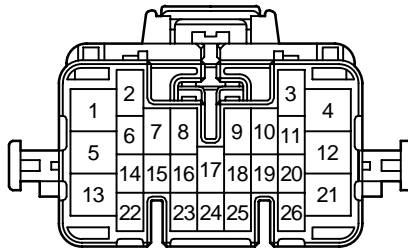
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90980-11423



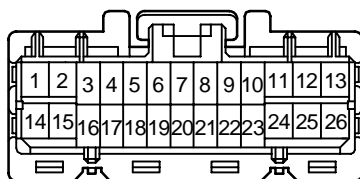
90980-11611



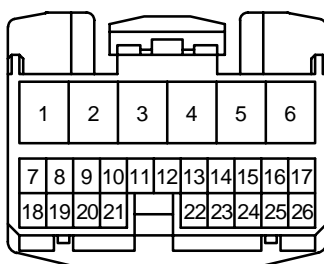
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## TABLE OF HOUSING SHAPE

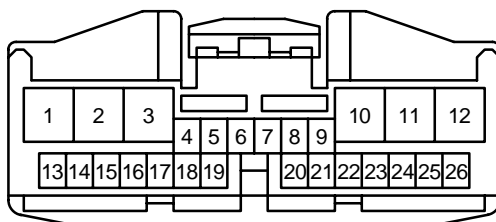
## &lt;FEMALE&gt; 26P Non-waterproof Type



90980-11786

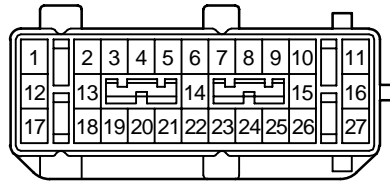


90980-12150



90980-12203

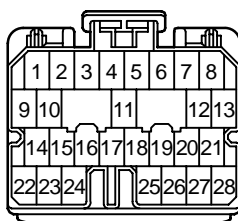
**<FEMALE> 27P Non-waterproof Type**



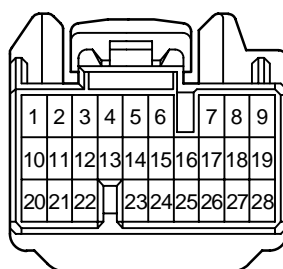
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## TABLE OF HOUSING SHAPE

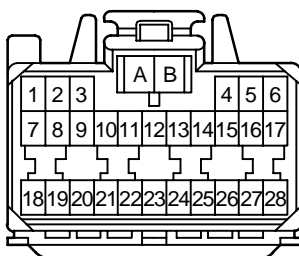
## &lt;FEMALE&gt; 28P Non-waterproof Type



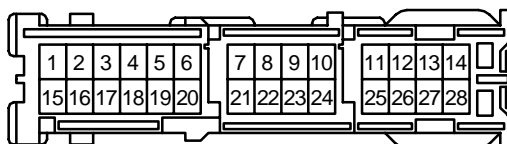
90980-11218



90980-11637

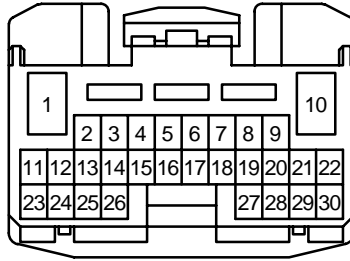


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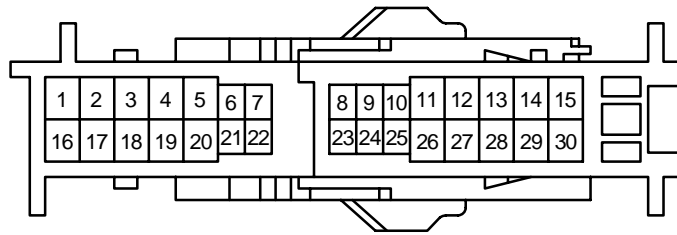


90980-12102

<FEMALE> 30P Non-waterproof Type



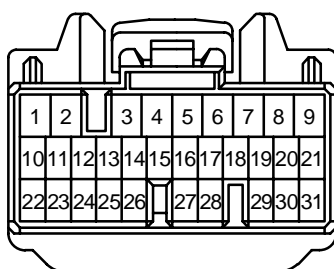
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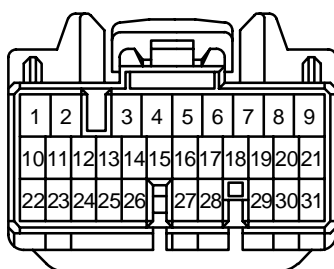
90980-12277

## TABLE OF HOUSING SHAPE

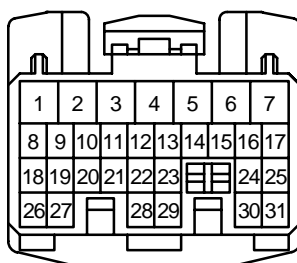
## &lt;FEMALE&gt; 31P Non-waterproof Type



90980-11421



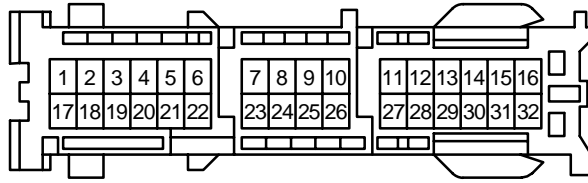
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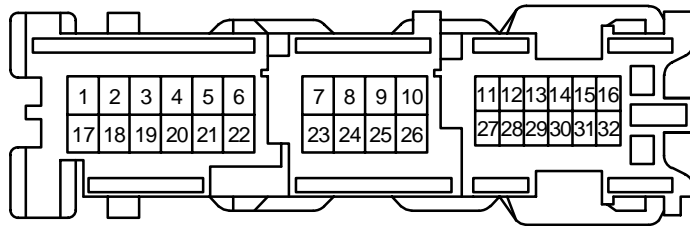
90980-12142

TABLE OF HOUSING SHAPE

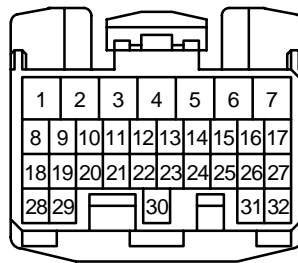
<FEMALE> 32P Non-waterproof Type



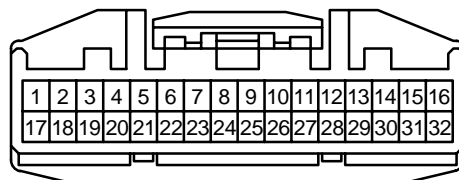
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90980-12096



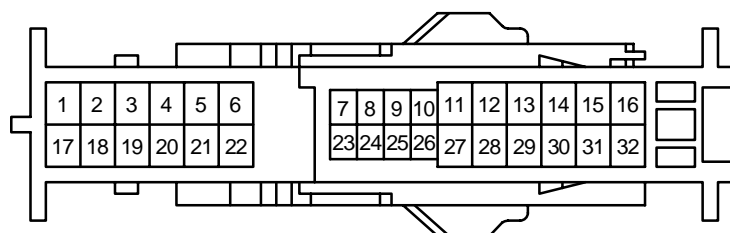
90980-12143



90980-12153



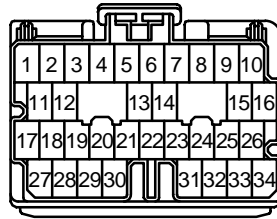
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**<FEMALE> 32P Non-waterproof Type**

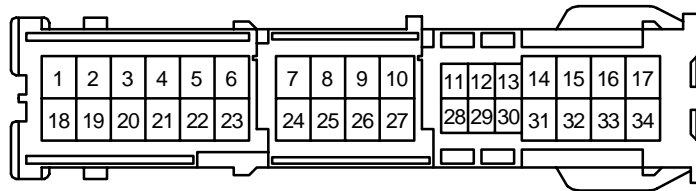
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TABLE OF HOUSING SHAPE

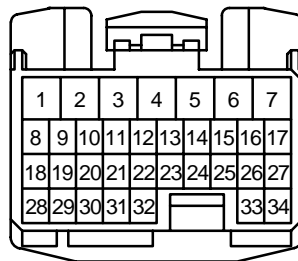
<FEMALE> 34P Non-waterproof Type



90980-11221



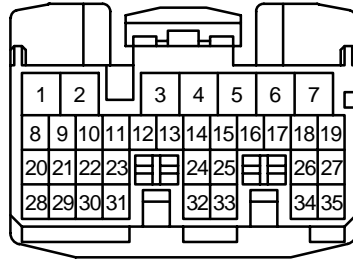
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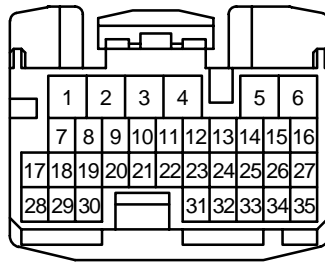
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TABLE OF HOUSING SHAPE

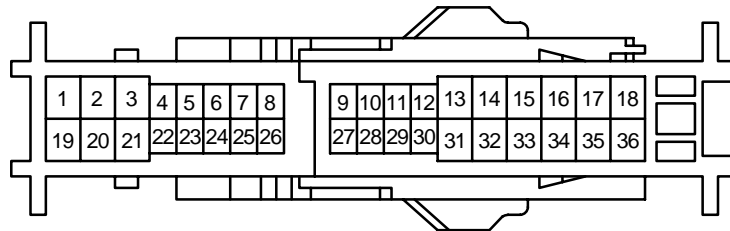
<FEMALE> 35P, 36P Non-waterproof Type



90980-12145



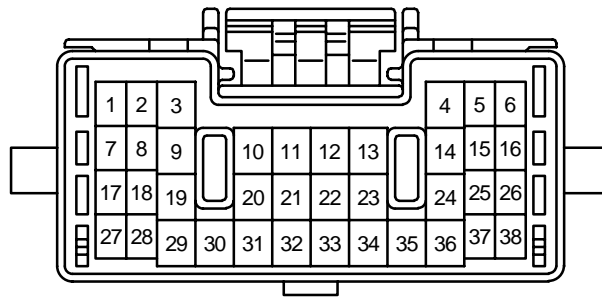
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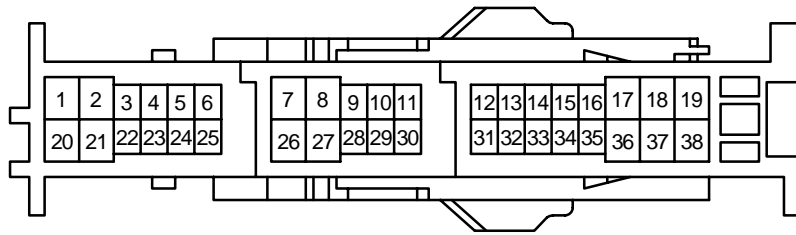
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<FEMALE> 38P Non-waterproof Type



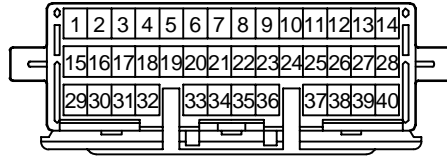
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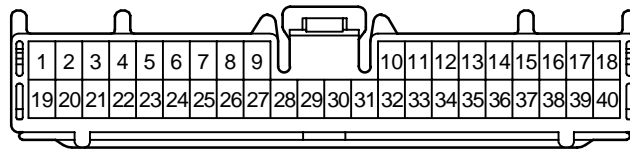
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TABLE OF HOUSING SHAPE

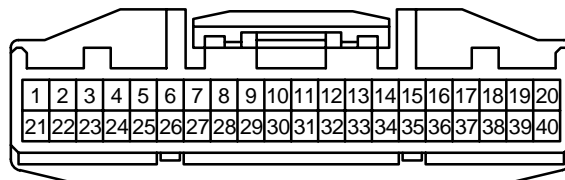
<FEMALE> 40P Non-waterproof Type



90980-11508

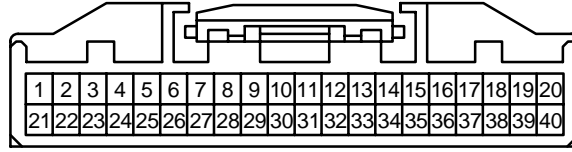


90980-11618



90980-12169

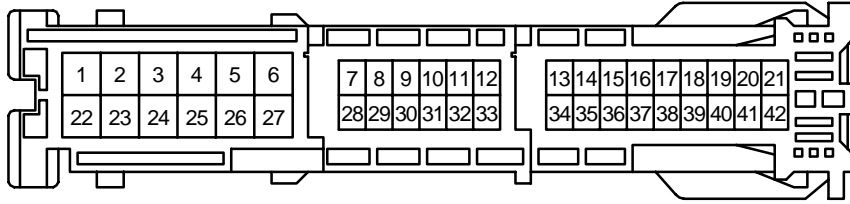
<FEMALE> 40P Non-waterproof Type



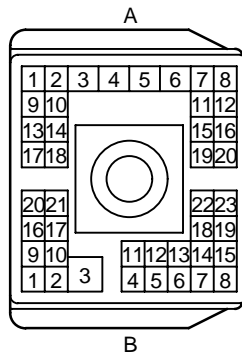
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TABLE OF HOUSING SHAPE

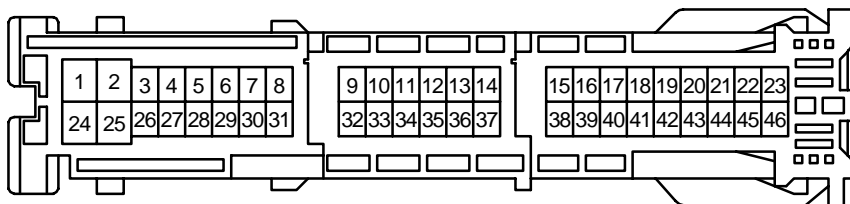
<FEMALE> 42P, 43P, 46P Non-waterproof Type



90980-12184



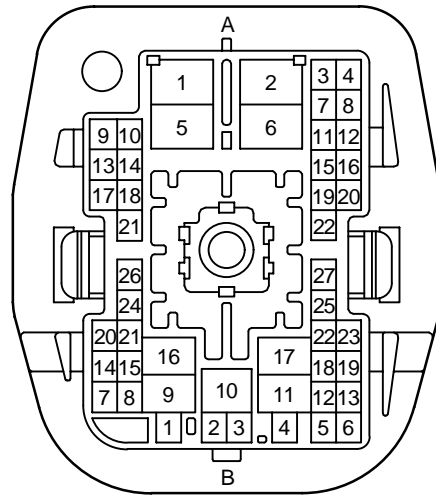
90980-11360



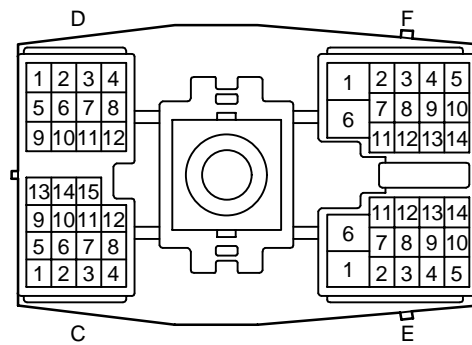
90980-12179

TABLE OF HOUSING SHAPE

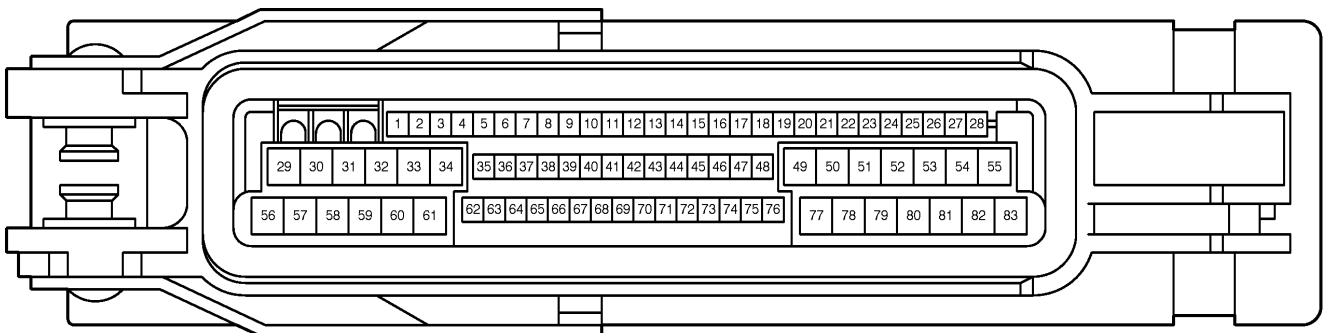
<FEMALE> 49P, 55P, 83P Non-waterproof Type



90980-11431



90980-11359

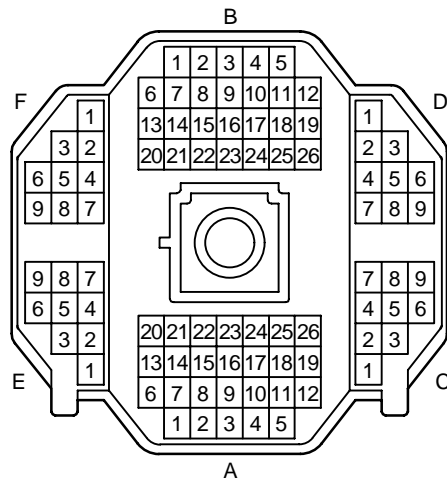


90980-11906



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## &lt;FEMALE&gt; 88P Non-waterproof Type



90980-10950

<FEMALE> 10P Non-waterproof Type

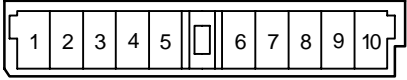
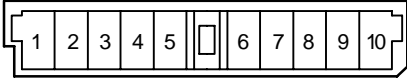
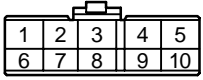
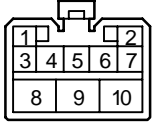
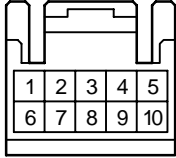
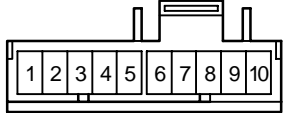
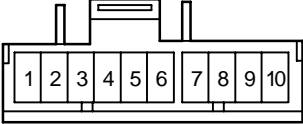
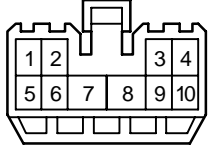
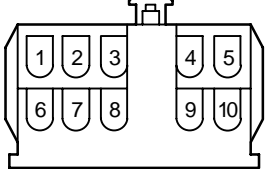
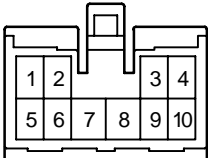
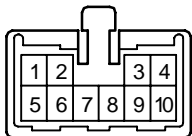
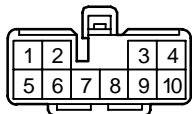
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 <p>90980-10282</p>	 <p>90980-10294</p>	 <p>90980-10302</p>
 <p>90980-10304</p>	 <p>90980-10322</p>	 <p>90980-10377</p>
 <p>90980-10469</p>	 <p>90980-10528</p>	 <p>90980-10669</p>

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<FEMALE> 10P Non-waterproof Type

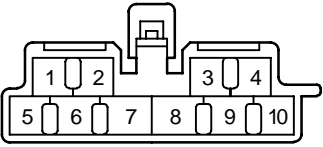
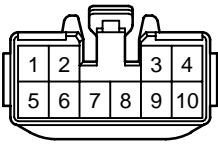
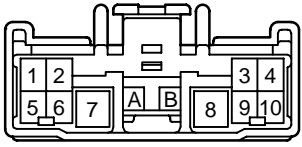
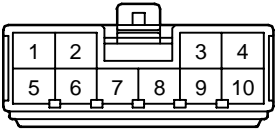
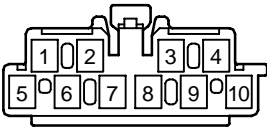
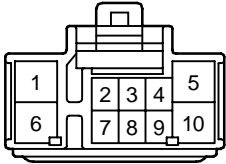
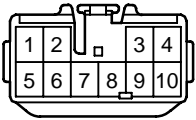
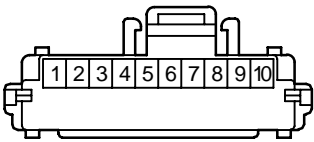
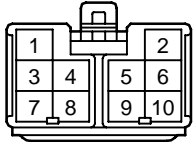
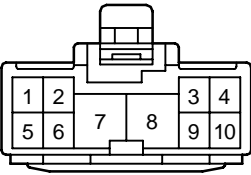
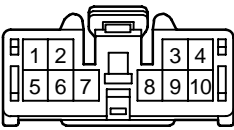
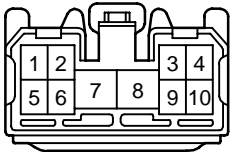
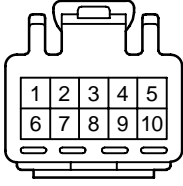
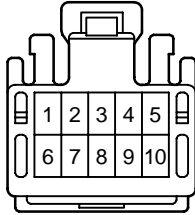
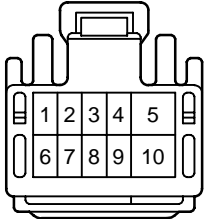
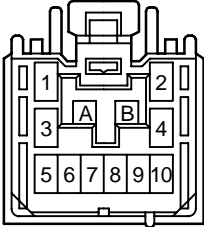
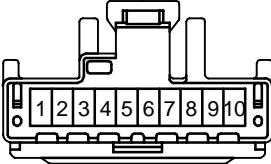
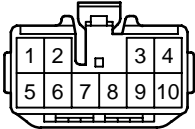
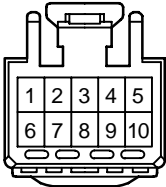
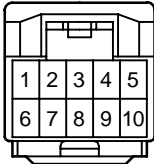

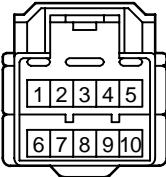
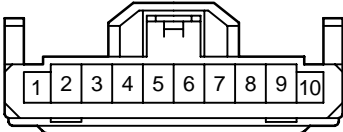

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 <p>90980-10862</p>	 <p>90980-10965</p>	 <p>90980-10993</p>
 <p>90980-10997</p>	 <p>90980-11116</p>	 <p>90980-11276</p>
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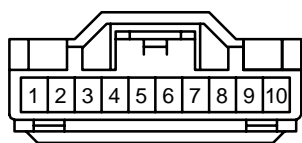
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<FEMALE> 10P Non-waterproof Type

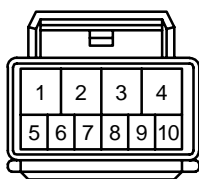
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 <p>90980-11642</p>	 <p>90980-11657</p>	 <p>90980-11781</p>
 <p>90980-11817</p>	 <p>90980-11923</p>	 <p>90980-11924</p>
 <p>90980-11948</p>	 <p>90980-12008</p>	 <p>90980-12135</p>

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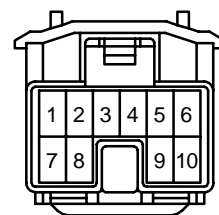
## &lt;FEMALE&gt; 10P Non-waterproof Type



90980-12162



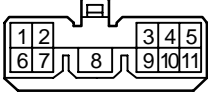
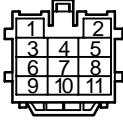
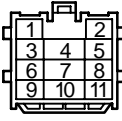
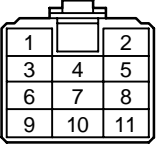
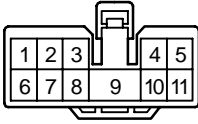
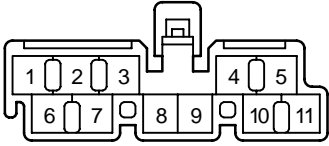

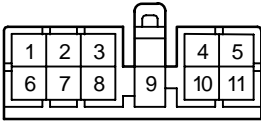
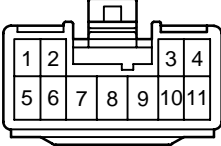
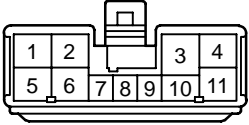
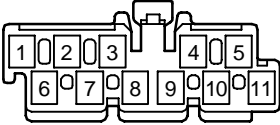
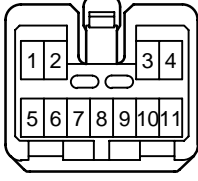
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90980-12272

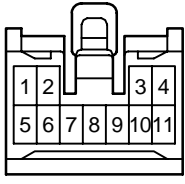
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<FEMALE> 11P Non-waterproof Type

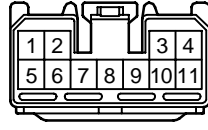
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## TABLE OF HOUSING SHAPE

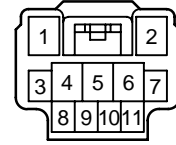
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90980-12003

<FEMALE> 12P Non-waterproof Type

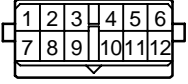
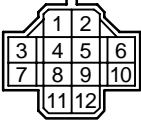
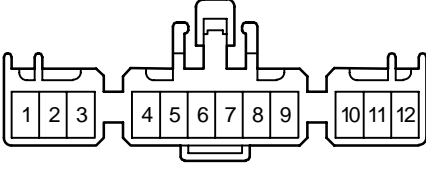
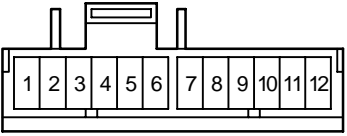
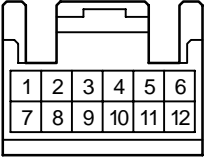
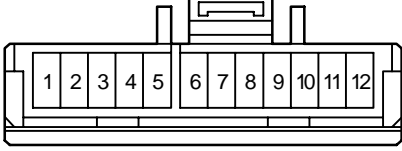
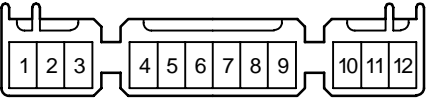
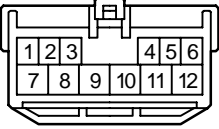
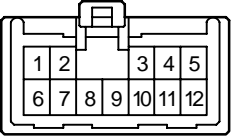
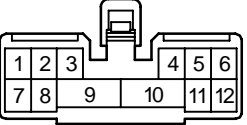
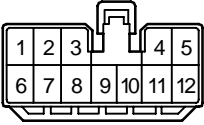
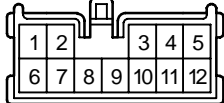
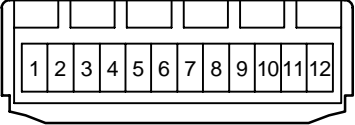
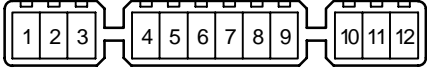
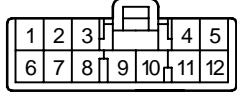
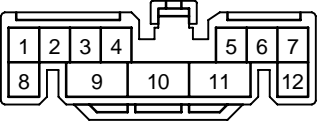
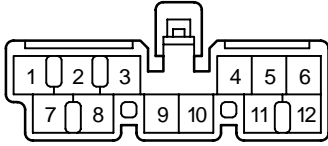
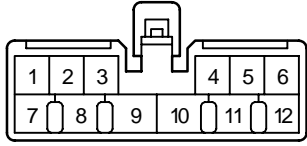
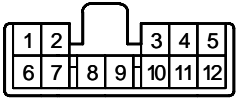
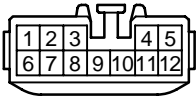
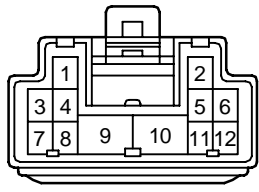
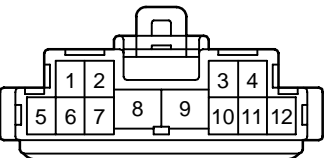
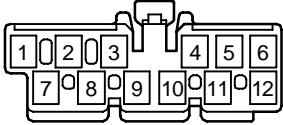
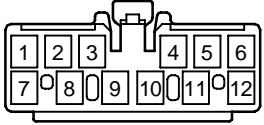
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 <p>90980-10397</p>	 <p>90980-10406</p>	 <p>90980-10408</p>
 <p>90980-10421</p>	 <p>90980-10432</p>	 <p>90980-10524</p>



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<FEMALE> 12P Non-waterproof Type

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 <p>90980-10714</p>	 <p>90980-10724</p>	 <p>90980-10725</p>
 <p>90980-10743</p>	 <p>90980-10803</p>	 <p>90980-10879</p>
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<FEMALE> 12P Non-waterproof Type

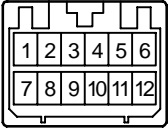
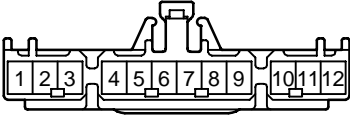
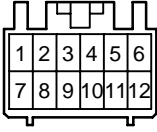
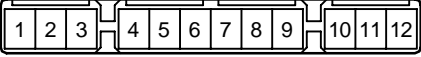
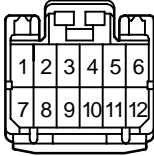
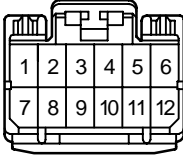
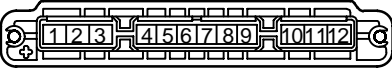
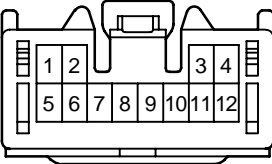
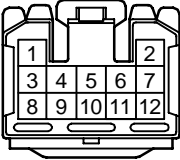
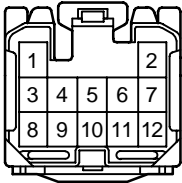
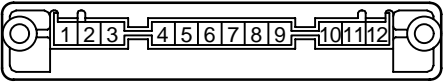
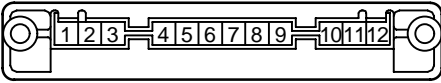
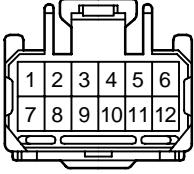
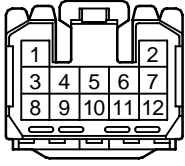
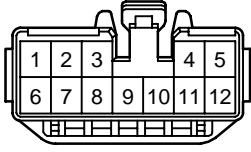
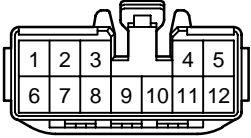
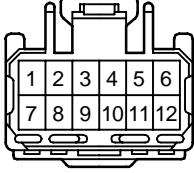
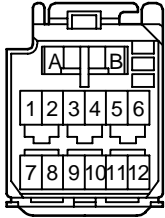
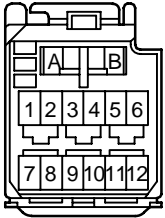
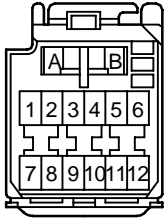
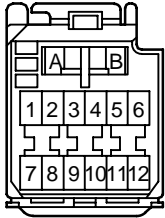
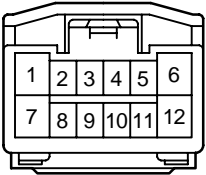
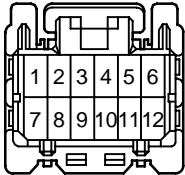
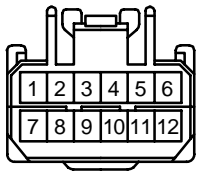
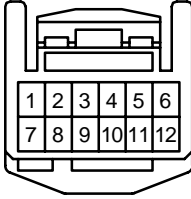
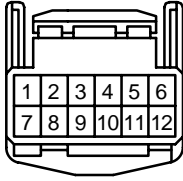
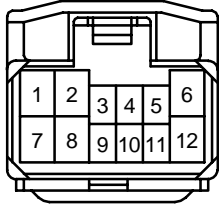
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 <p>90980-11453</p>	 <p>90980-11475</p>	 <p>90980-11531</p>
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<FEMALE> 12P Non-waterproof Type

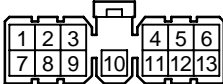
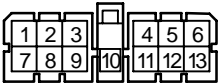
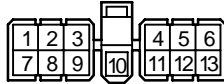
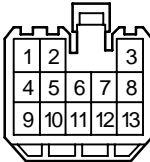
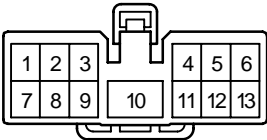
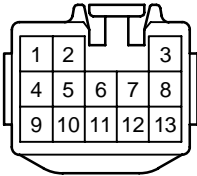
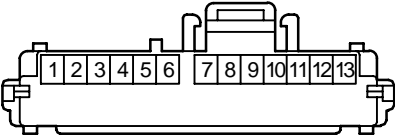
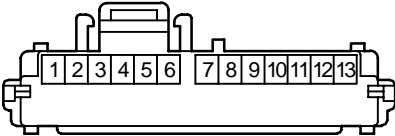
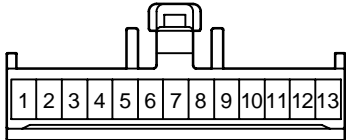
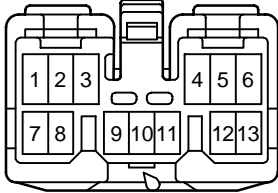
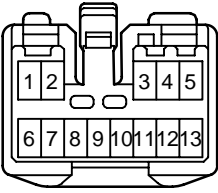
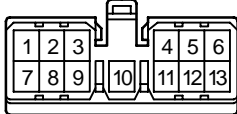
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 <p>90980-11782</p>	 <p>90980-11847</p>	 <p>90980-11867</p>
 <p>90980-11869</p>	 <p>90980-11871</p>	 <p>90980-11873</p>
 <p>90980-11947</p>	 <p>90980-12032</p>	 <p>90980-12090</p>

<FEMALE> 12P Non-waterproof Type

 <p>90980-12183</p>	 <p>90980-12222</p>	 <p>90980-12273</p>

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## &lt;FEMALE&gt; 13P Non-waterproof Type

 <p>90980-10033</p>	 <p>90980-10062</p>	 <p>90980-10132</p>
 <p>90980-10324</p>	 <p>90980-10480</p>	 <p>90980-10805</p>
 <p>90980-11114</p>	 <p>90980-11115</p>	 <p>90980-11199</p>
 <p>90980-11350</p>	 <p>90980-11394</p>	 <p>90980-11478</p>

<FEMALE> 13P Non-waterproof Type

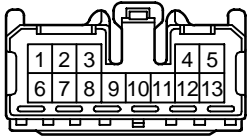
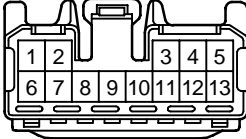
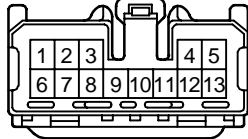
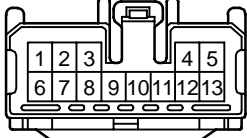
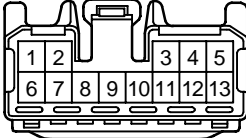
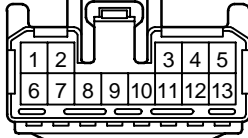
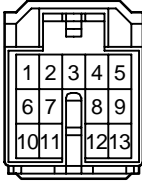
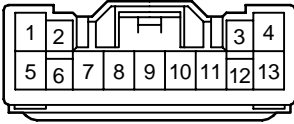
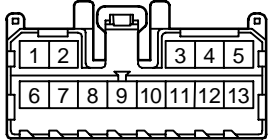
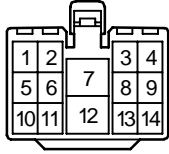
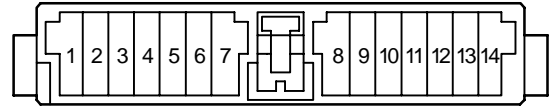
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 <p>90980-11714</p>	 <p>90980-11827</p>	 <p>90980-11848</p>
 <p>90980-11952</p>	 <p>90980-12007</p>	 <p>90980-12027</p>

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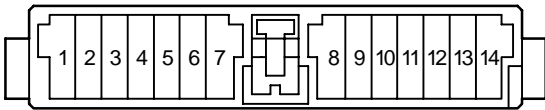
<FEMALE> 14P Non-waterproof Type



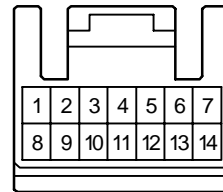
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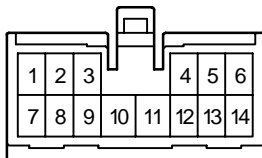
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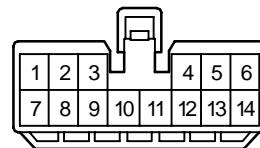
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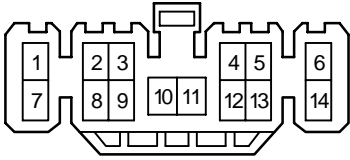


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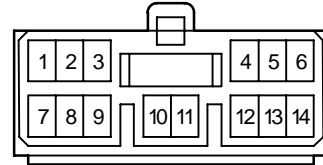


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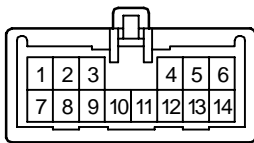
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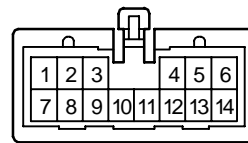
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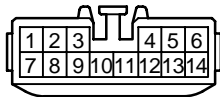
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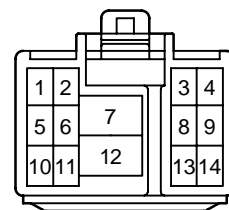
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90980-10634



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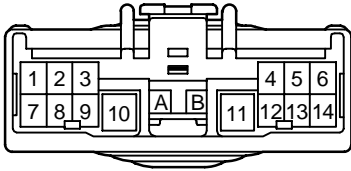


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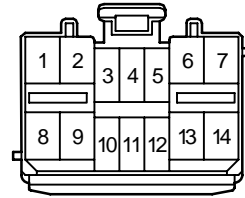


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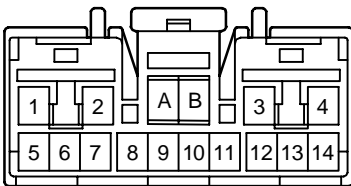
<FEMALE> 14P Non-waterproof Type



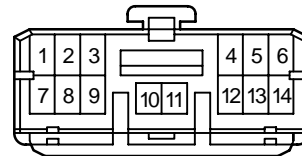
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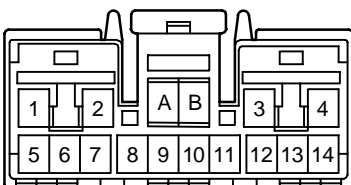
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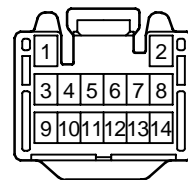
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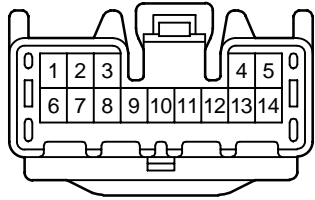


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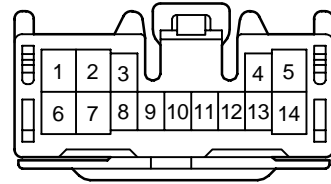


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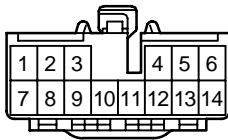
<FEMALE> 14P Non-waterproof Type



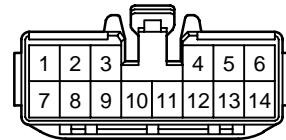
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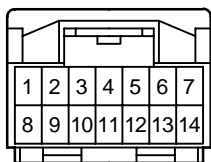
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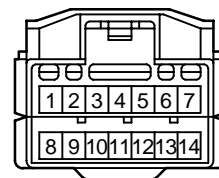
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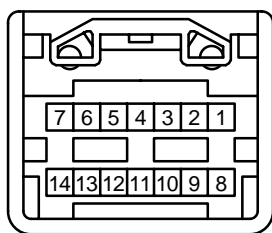
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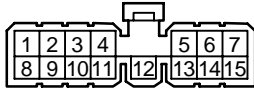
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## &lt;FEMALE&gt; 14P Non-waterproof Type

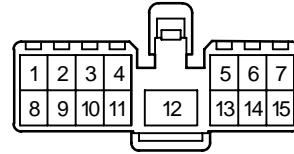


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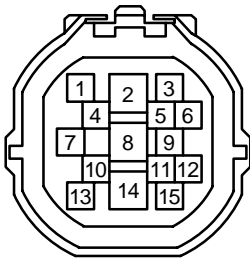
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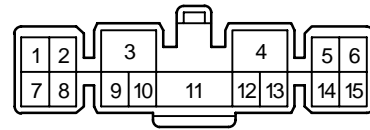
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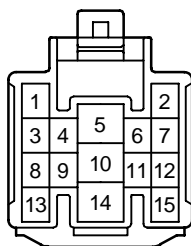
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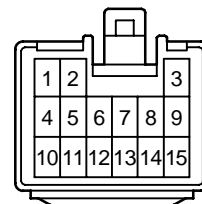
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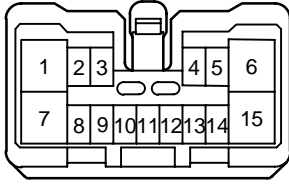
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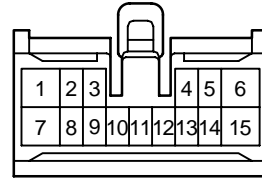
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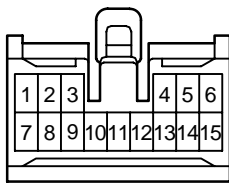
<FEMALE> 15P Non-waterproof Type



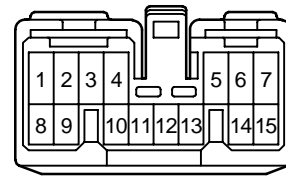
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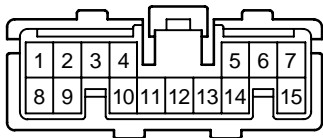
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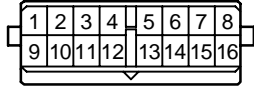


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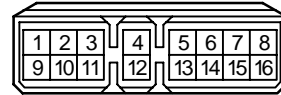


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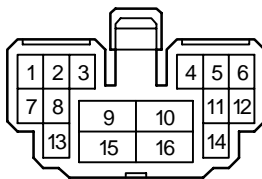
<FEMALE> 16P Non-waterproof Type



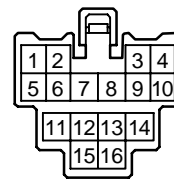
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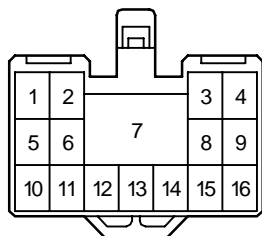
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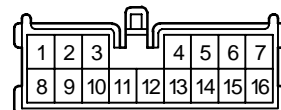
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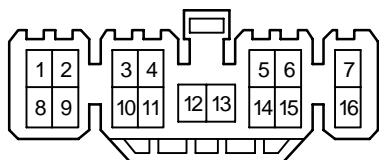
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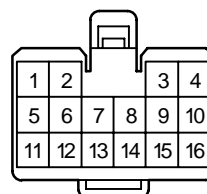
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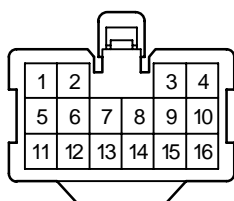
## &lt;FEMALE&gt; 16P Non-waterproof Type



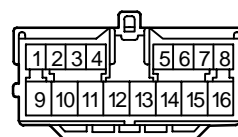
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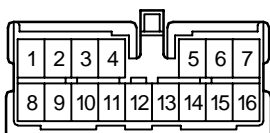
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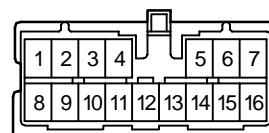
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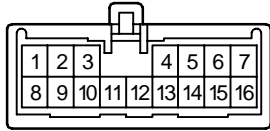


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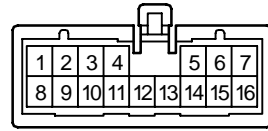


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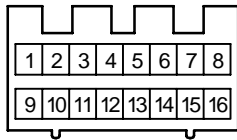
<FEMALE> 16P Non-waterproof Type



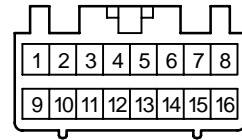
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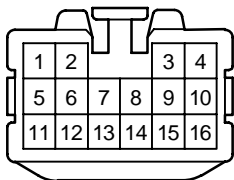
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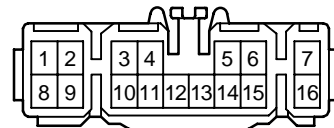
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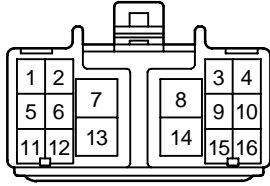


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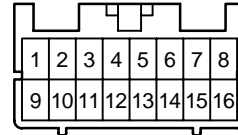


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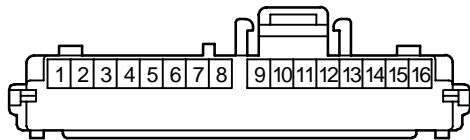
<FEMALE> 16P Non-waterproof Type



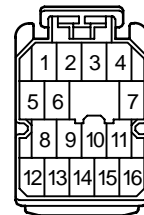
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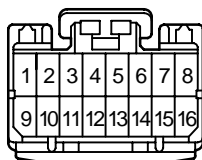
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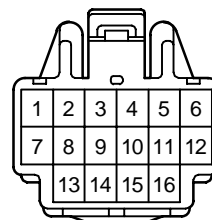
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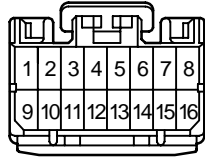


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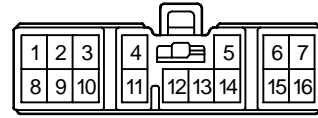


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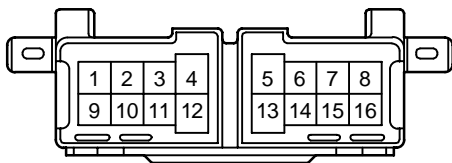
<FEMALE> 16P Non-waterproof Type



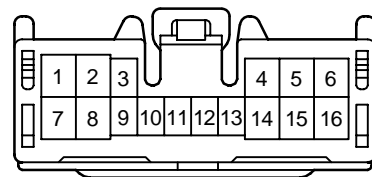
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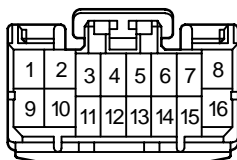
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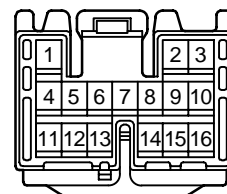
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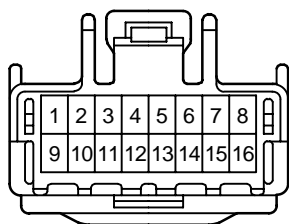
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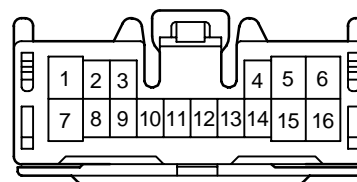
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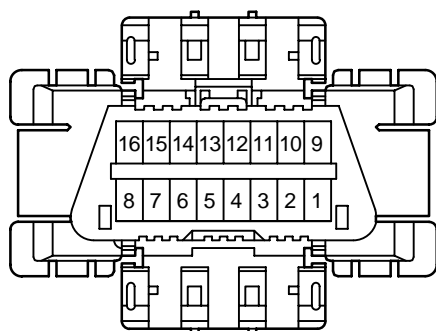
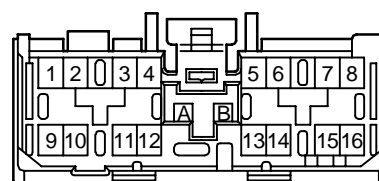
## &lt;FEMALE&gt; 16P Non-waterproof Type



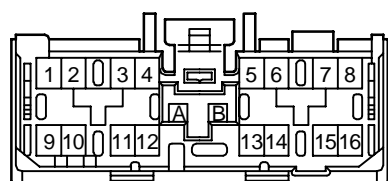
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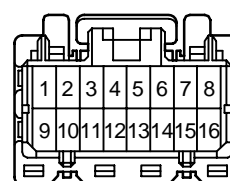
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90980-11681

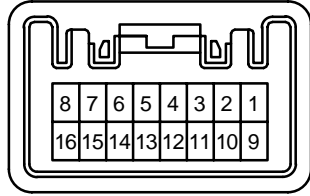


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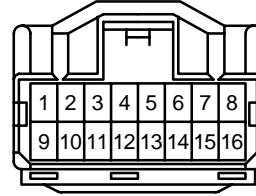


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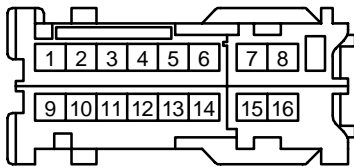
<FEMALE> 16P Non-waterproof Type



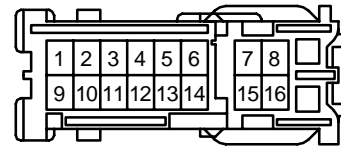
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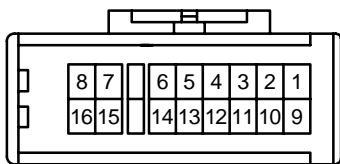
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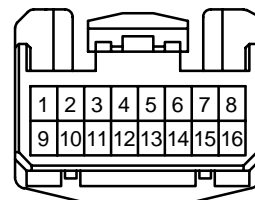
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90980-12104



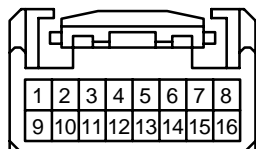
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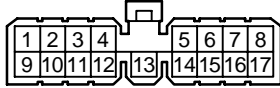
## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 16P Non-waterproof Type

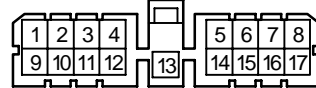


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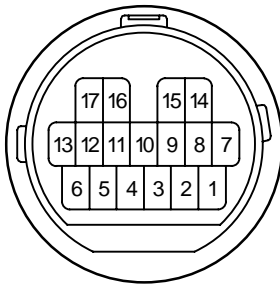
<FEMALE> 17P Non-waterproof Type



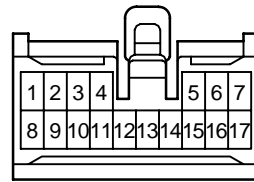
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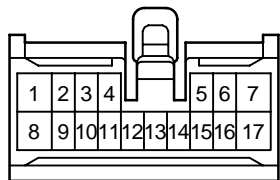
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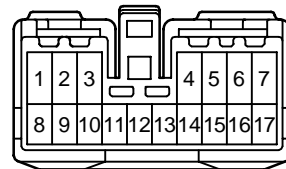
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90980-11420



90980-11203



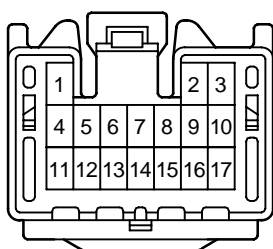
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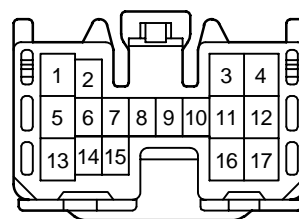
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## TABLE OF HOUSING SHAPE

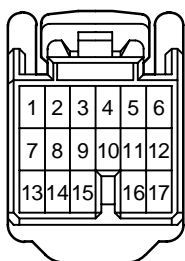
## &lt;FEMALE&gt; 17P Non-waterproof Type



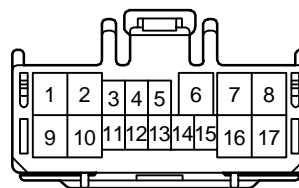
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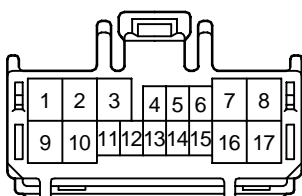
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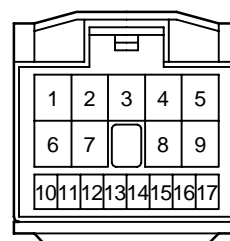
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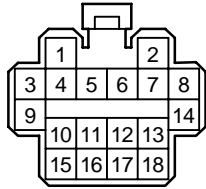


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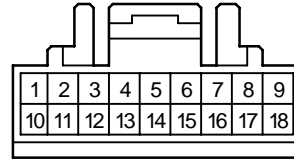


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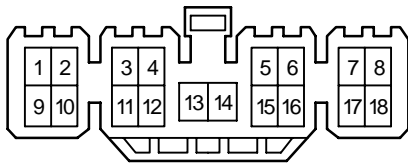
<FEMALE> 18P Non-waterproof Type



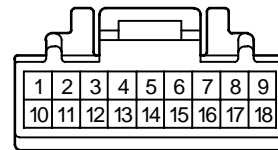
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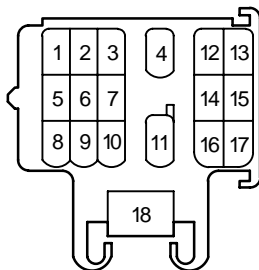
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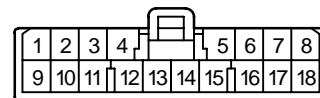
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90980-10350



90980-10530

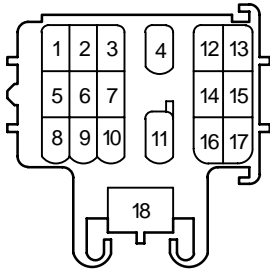


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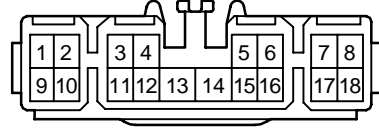


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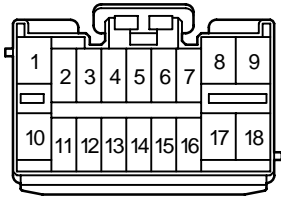
<FEMALE> 18P Non-waterproof Type



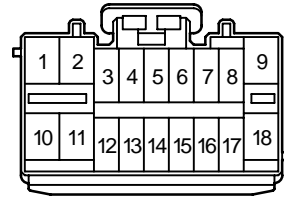
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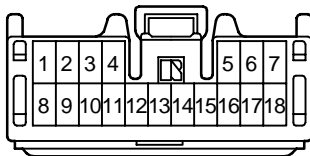
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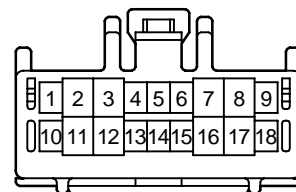
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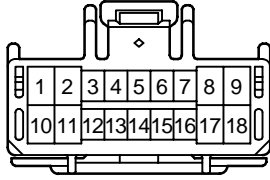


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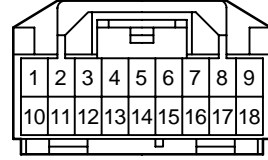


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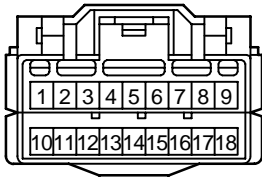
<FEMALE> 18P Non-waterproof Type



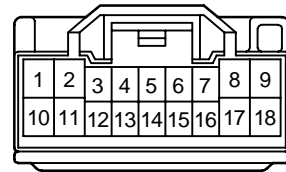
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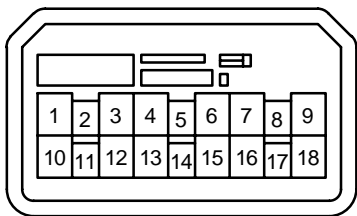
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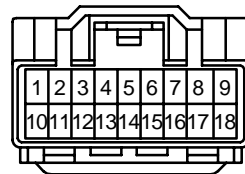
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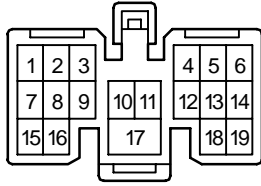
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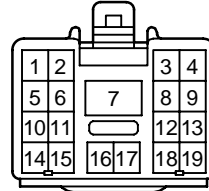
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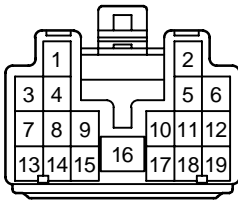
<FEMALE> 19P Non-waterproof Type



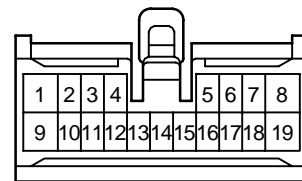
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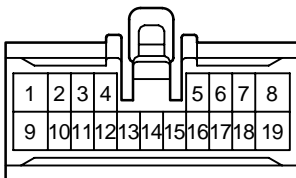
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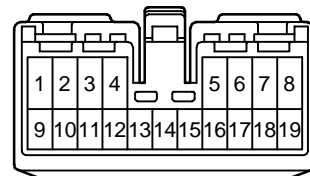
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90980-11205

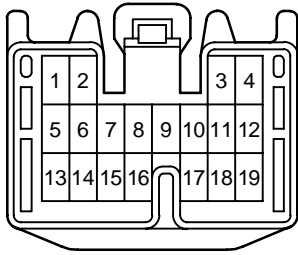


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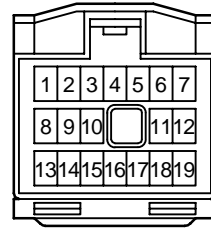


90980-11377

<FEMALE> 19P Non-waterproof Type



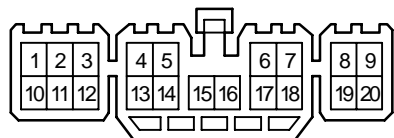
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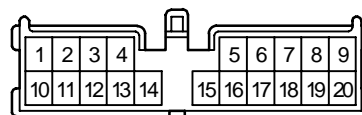
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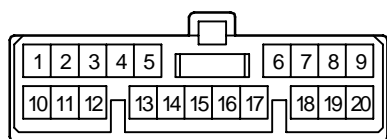
## &lt;FEMALE&gt; 20P Non-waterproof Type



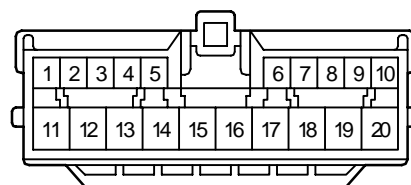
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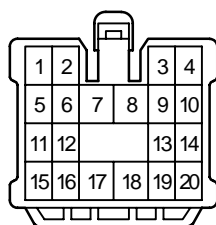
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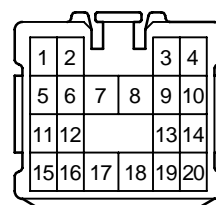
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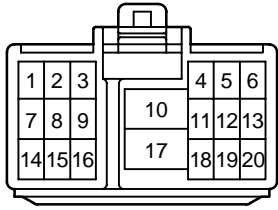
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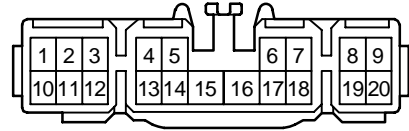
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90980-11441

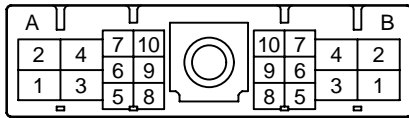
<FEMALE> 20P Non-waterproof Type



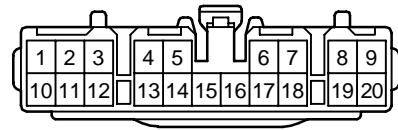
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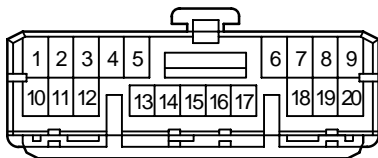
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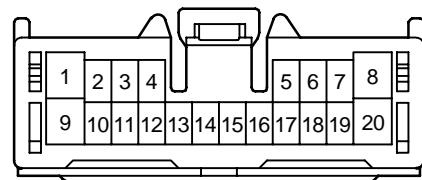
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90980-11260



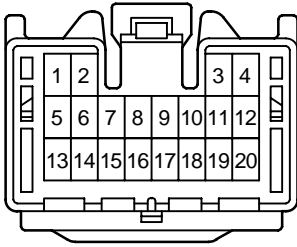
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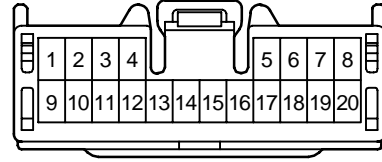
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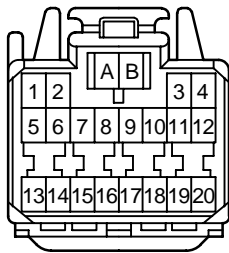
<FEMALE> 20P Non-waterproof Type



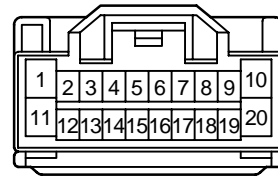
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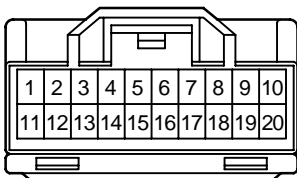
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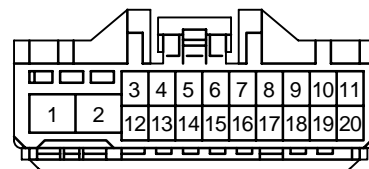
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90980-11971

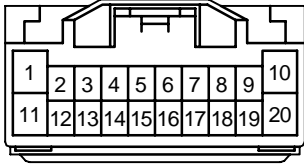


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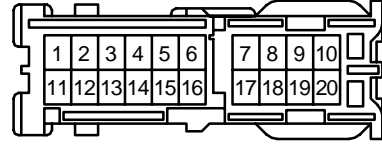


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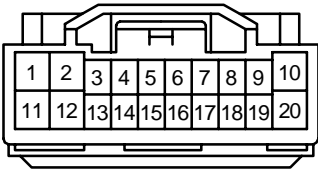
<FEMALE> 20P Non-waterproof Type



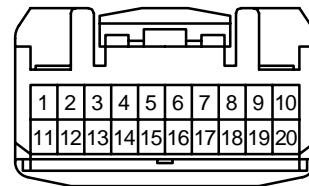
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90980-12106



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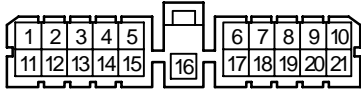


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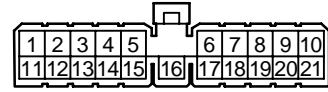


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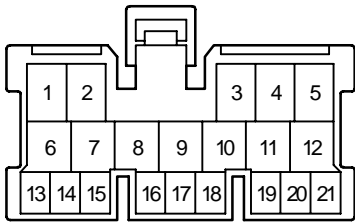
<FEMALE> 21P Non-waterproof Type



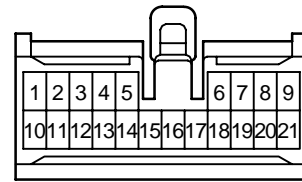
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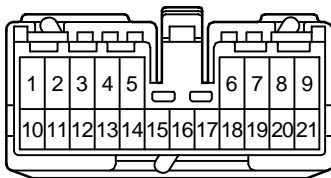
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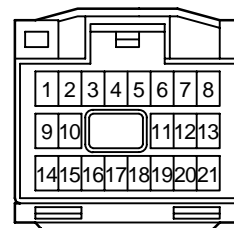
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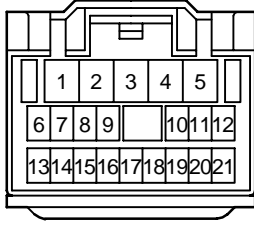


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90980-11956

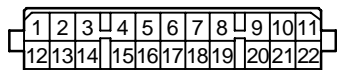
<FEMALE> 21P Non-waterproof Type



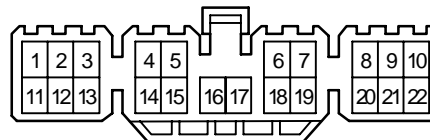
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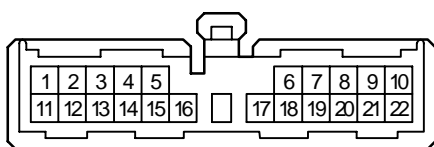
<FEMALE> 22P Non-waterproof Type



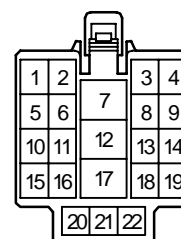
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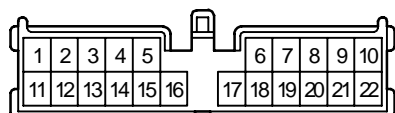
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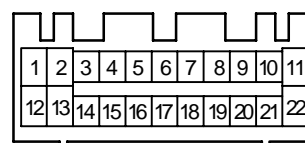
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90980-10458

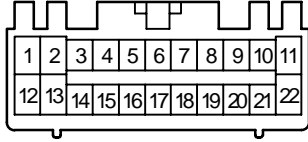


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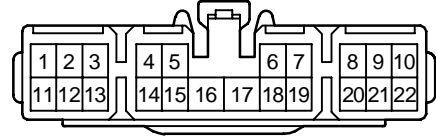


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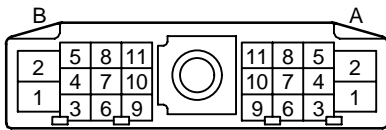
<FEMALE> 22P Non-waterproof Type



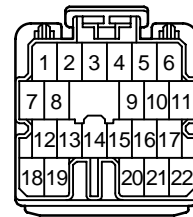
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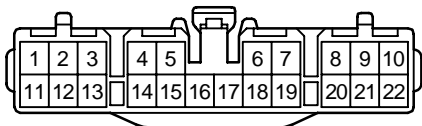
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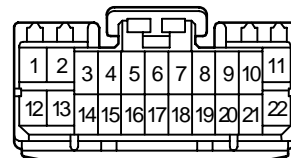
90980-10953



90980-11220



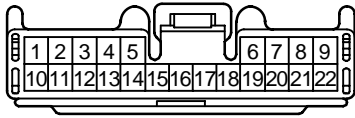
90980-11238



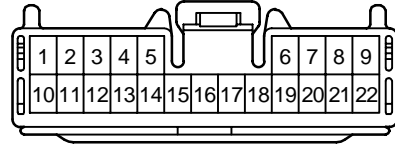
90980-11392

TABLE OF HOUSING SHAPE

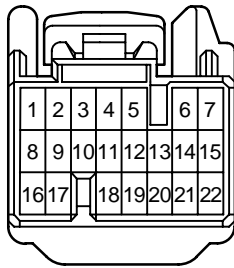
<FEMALE> 22P Non-waterproof Type



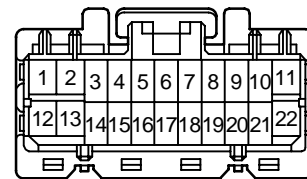
90980-11502



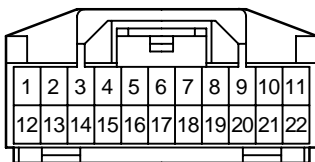
90980-11628



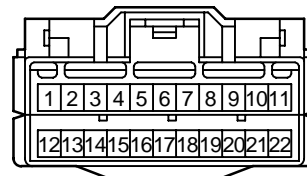
90980-11638



90980-11788

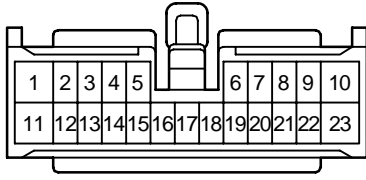


90980-11915

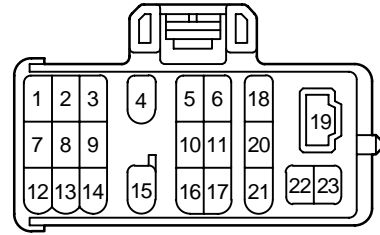


90980-11927

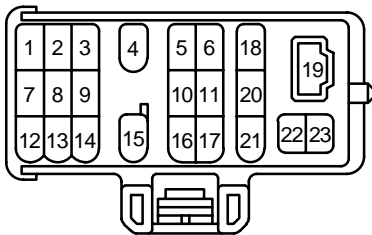
<FEMALE> 23P Non-waterproof Type



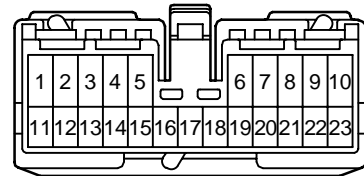
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90980-11195



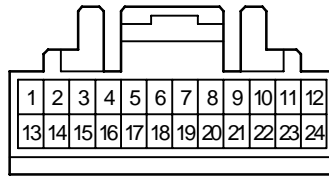
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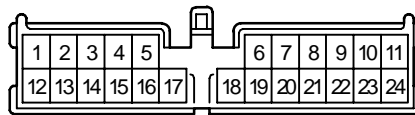
90980-11381

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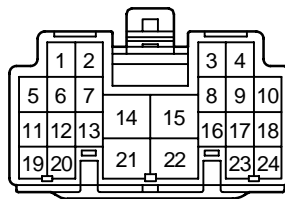
<FEMALE> 24P Non-waterproof Type



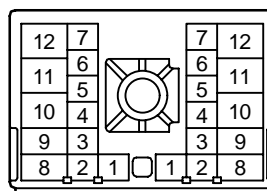
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90980-10585



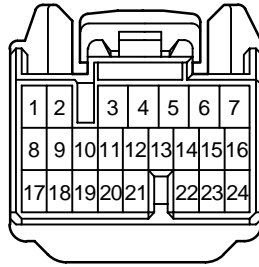
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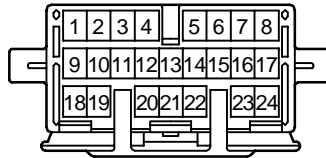
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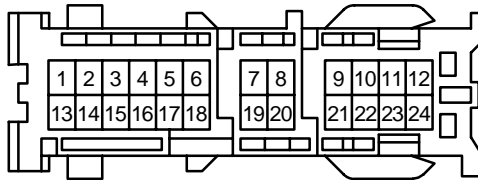
<FEMALE> 24P Non-waterproof Type



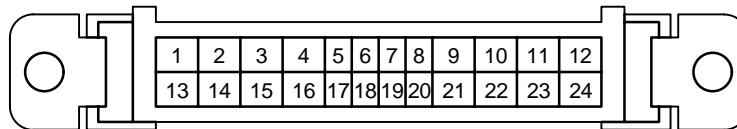
90980-11476



90980-11509



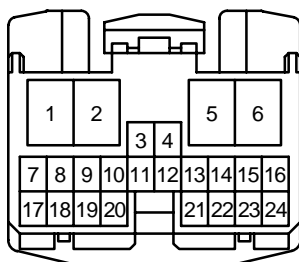
90980-12070



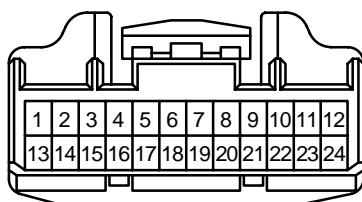
90980-12079



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**<FEMALE> 24P Non-waterproof Type**

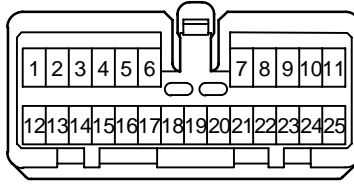
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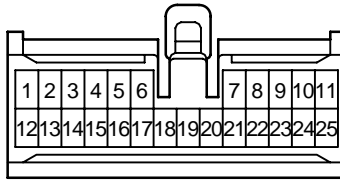
90980-12200

TABLE OF HOUSING SHAPE

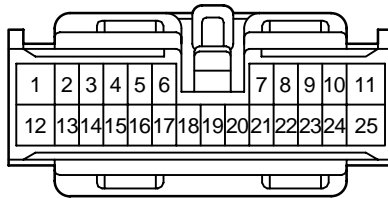
<FEMALE> 25P Non-waterproof Type



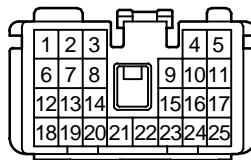
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90980-11055



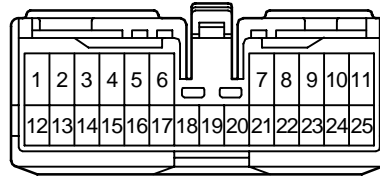
90980-11058



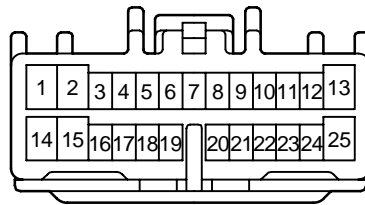
90980-11375

## TABLE OF HOUSING SHAPE

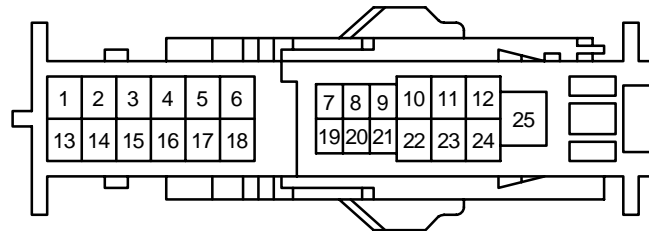
## &lt;FEMALE&gt; 25P Non-waterproof Type



90980-11404



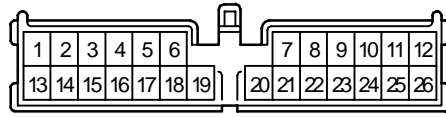
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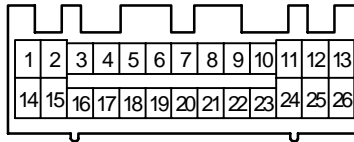
90980-12278

TABLE OF HOUSING SHAPE

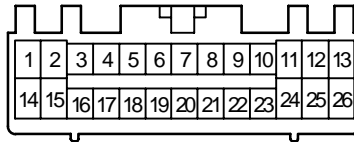
<FEMALE> 26P Non-waterproof Type



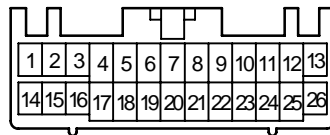
90980-10587



90980-10739



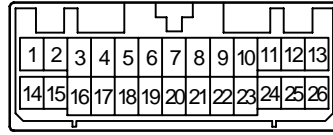
90980-10763



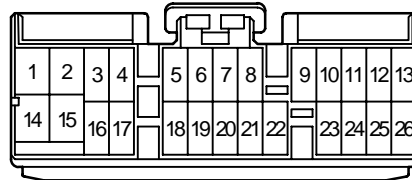
90980-10918

## TABLE OF HOUSING SHAPE

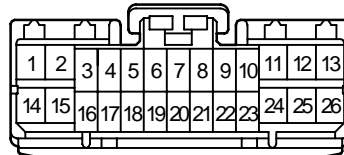
## &lt;FEMALE&gt; 26P Non-waterproof Type



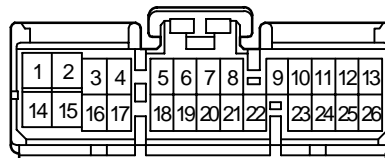
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90980-11234



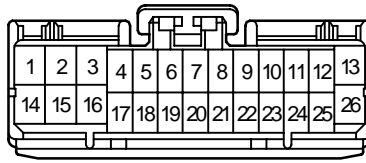
90980-11390



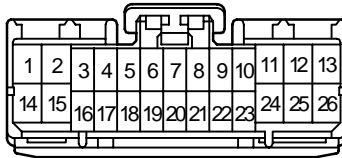
90980-11406

TABLE OF HOUSING SHAPE

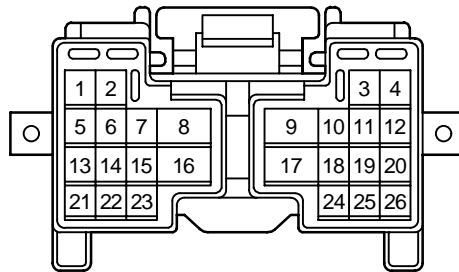
<FEMALE> 26P Non-waterproof Type



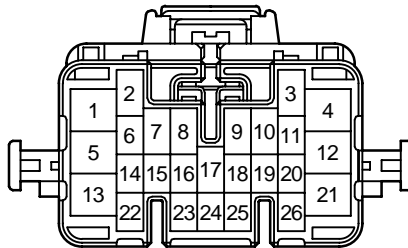
90980-11422



90980-11423

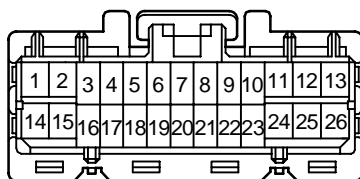


90980-11611

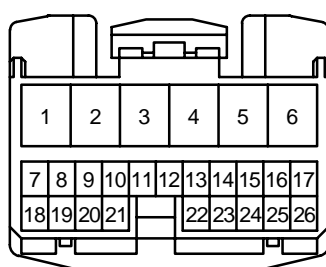


90980-11632

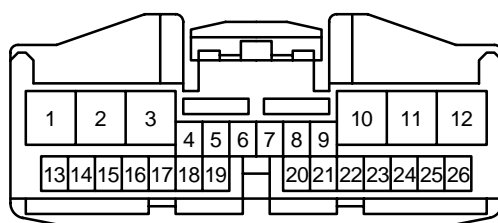
## TABLE OF HOUSING SHAPE

**<FEMALE> 26P Non-waterproof Type**

90980-11786

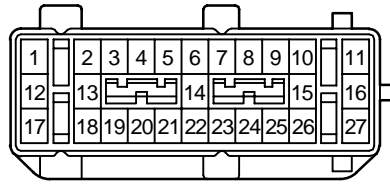


90980-12150



90980-12203

**<FEMALE> 27P Non-waterproof Type**

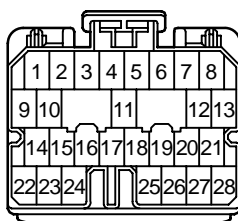


90980-11670

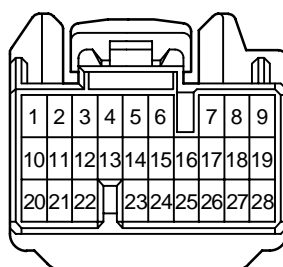


## TABLE OF HOUSING SHAPE

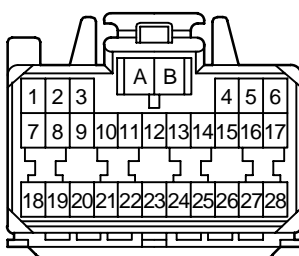
## &lt;FEMALE&gt; 28P Non-waterproof Type



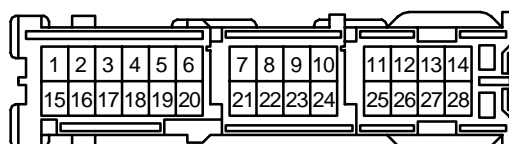
90980-11218



90980-11637

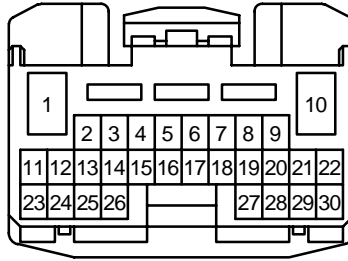


90980-11872

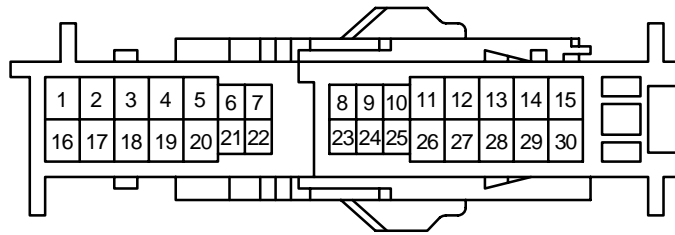


90980-12102

<FEMALE> 30P Non-waterproof Type



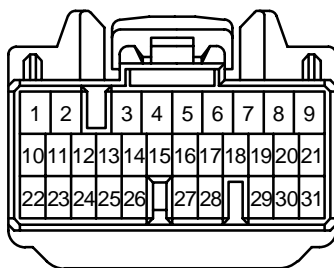
90980-12151



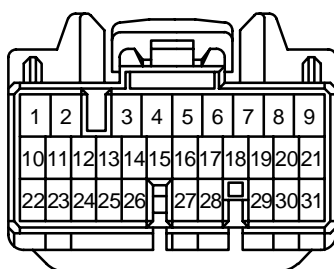
90980-12277

## TABLE OF HOUSING SHAPE

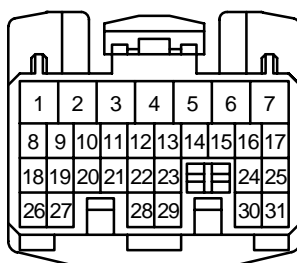
## &lt;FEMALE&gt; 31P Non-waterproof Type



90980-11421



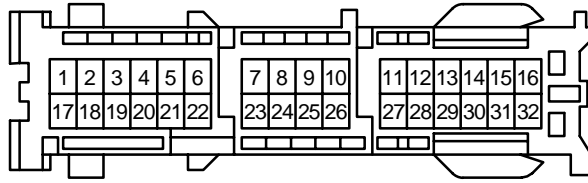
90980-11935



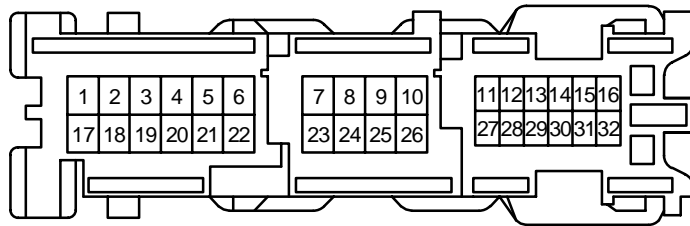
90980-12142

TABLE OF HOUSING SHAPE

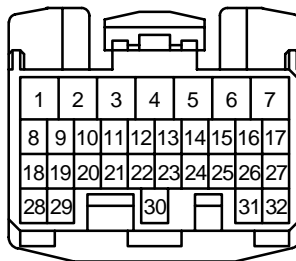
<FEMALE> 32P Non-waterproof Type



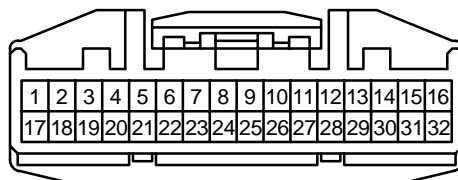
90980-12071



90980-12096



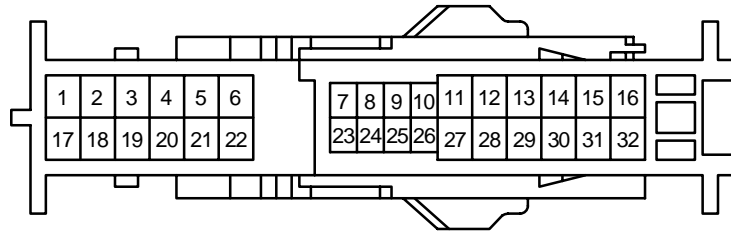
90980-12143



90980-12153

## TABLE OF HOUSING SHAPE

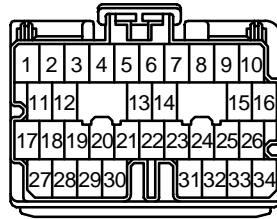
## &lt;FEMALE&gt; 32P Non-waterproof Type



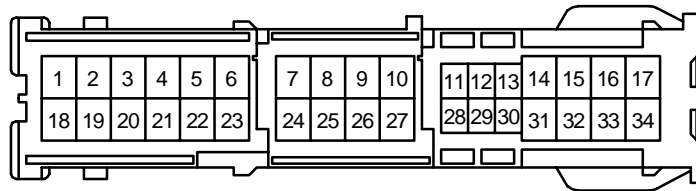
90980-12275

TABLE OF HOUSING SHAPE

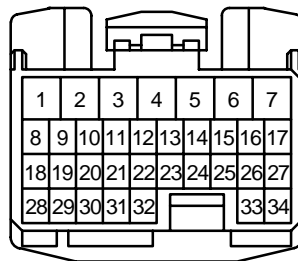
<FEMALE> 34P Non-waterproof Type



90980-11221



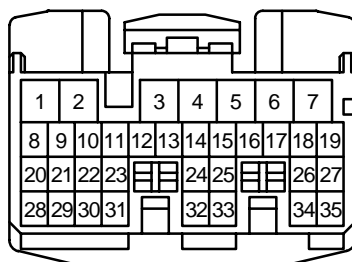
90980-12114



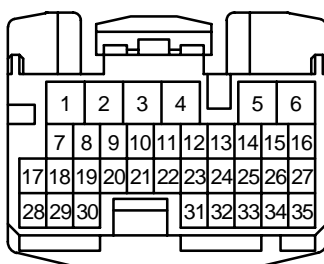
90980-12144

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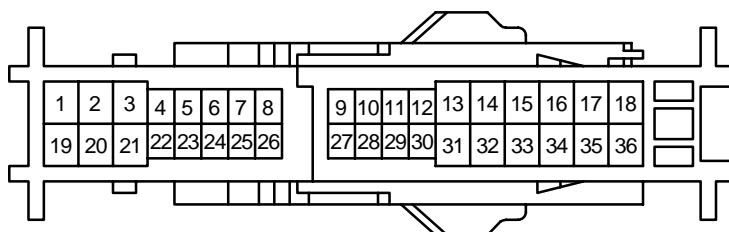
<FEMALE> 35P, 36P Non-waterproof Type



90980-12145



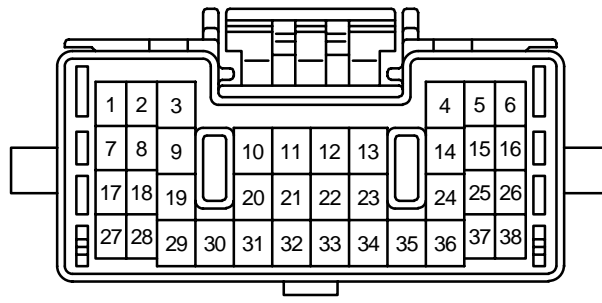
90980-12146



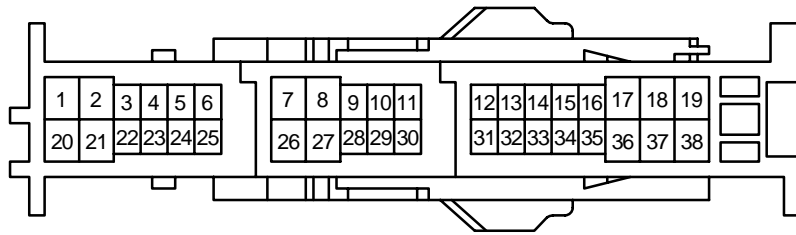
90980-12274

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<FEMALE> 38P Non-waterproof Type



90980-11555

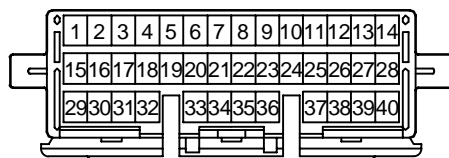


90980-12276

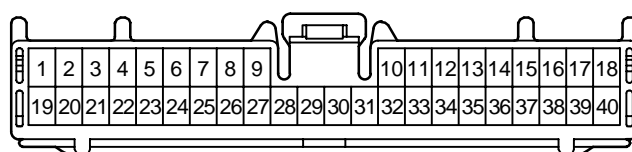


## TABLE OF HOUSING SHAPE

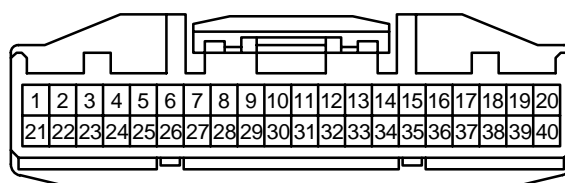
## &lt;FEMALE&gt; 40P Non-waterproof Type



90980-11508

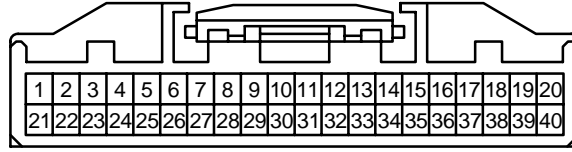


90980-11618



90980-12169

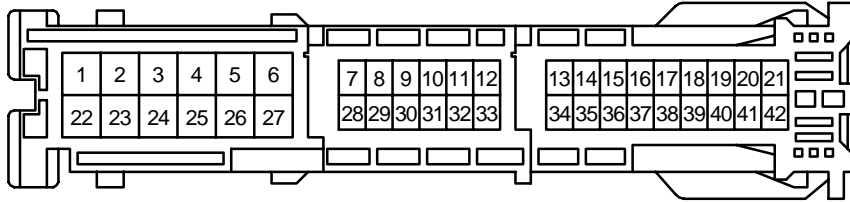
**<FEMALE> 40P Non-waterproof Type**



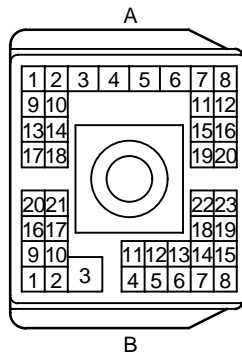
90980-12170

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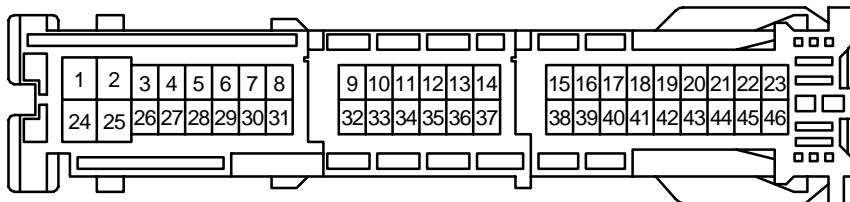
<FEMALE> 42P, 43P, 46P Non-waterproof Type



90980-12184



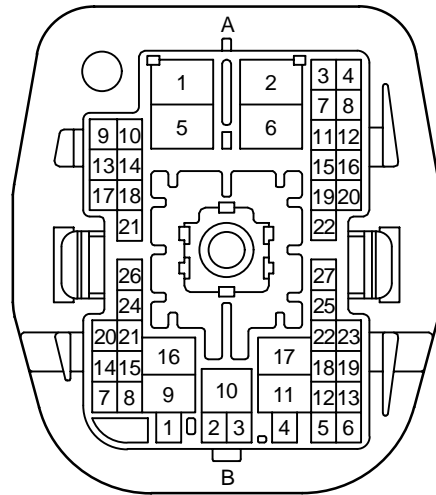
90980-11360



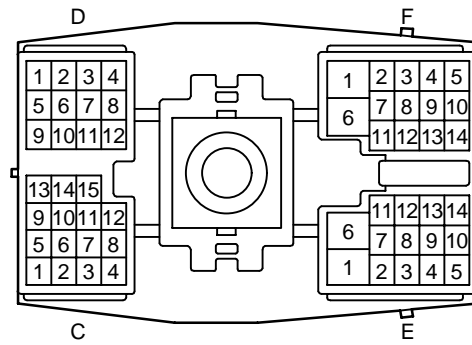
90980-12179

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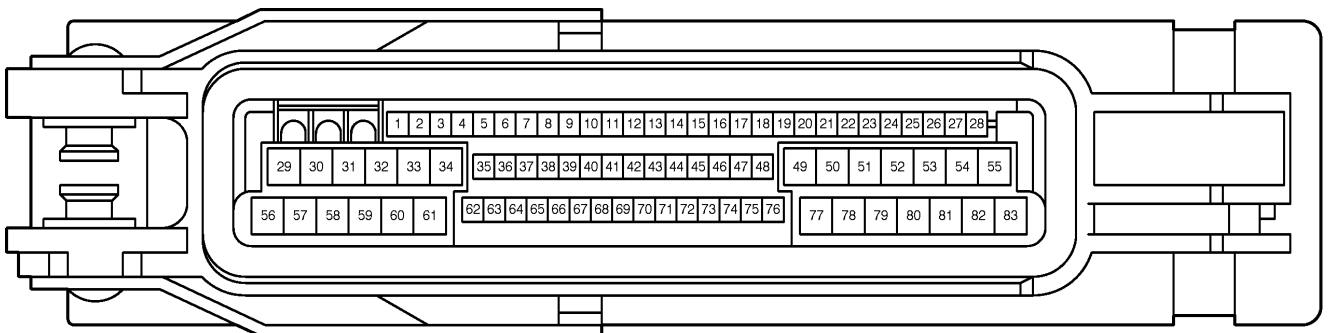
<FEMALE> 49P, 55P, 83P Non-waterproof Type



90980-11431



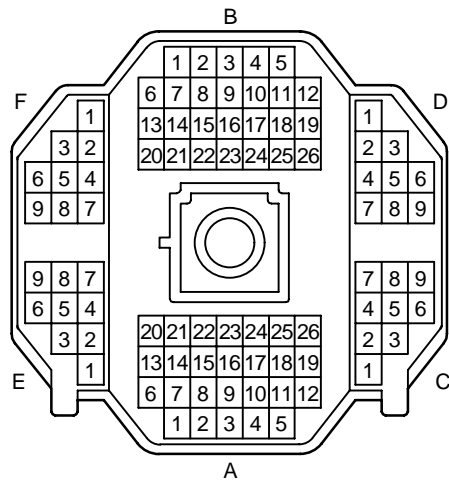
90980-11359



90980-11906








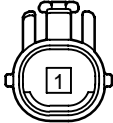

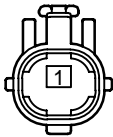



## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 88P Non-waterproof Type



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<MALE> 1P Waterproof Type

 <p>90980-10114</p>	 <p>90980-10125</p>	 <p>90980-10200</p>	 <p>90980-10240</p>
 <p>90980-10246</p>	 <p>90980-10438</p>	 <p>90980-10836</p>	 <p>90980-10892</p>
 <p>90980-10982</p>	 <p>90980-11006</p>	 <p>90980-11183</p>	 <p>90980-11270</p>
 <p>90980-11962</p>			

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## &lt;MALE&gt; 2P Waterproof Type






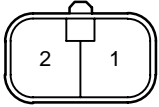













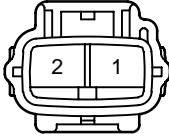




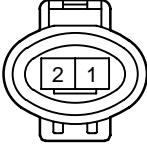


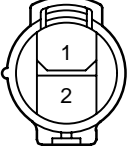




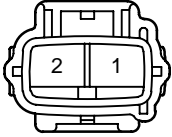
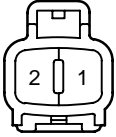

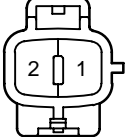

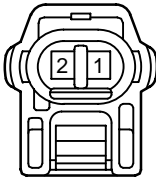


			
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90980-10533	90980-10555 90980-10707	90980-10566	90980-10571
			
90980-10575	90980-10580	90980-10582	90980-10592
			
90980-10594	90980-10625 90980-10788	90980-10665	90980-10838

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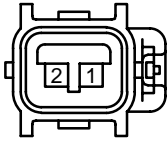


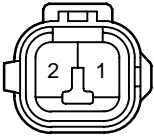




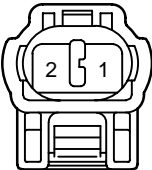


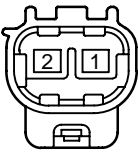

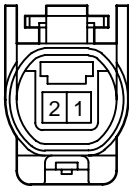
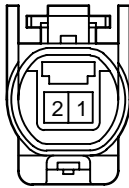

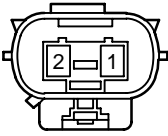
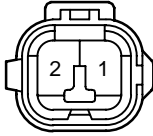
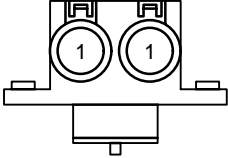
<MALE> 2P Waterproof Type

 <p>90980-10842</p>	 <p>90980-10886</p>	 <p>90980-10898</p>	 <p>90980-10900</p>
 <p>90980-10927</p>	 <p>90980-10948</p>	 <p>90980-10959</p>	 <p>90980-10970</p>
 <p>90980-11002</p>	 <p>90980-11004</p>	 <p>90980-11008</p>	 <p>90980-11029</p>
 <p>90980-11031</p>	 <p>90980-11050</p>	 <p>90980-11069</p>	 <p>90980-11072</p>
 <p>90980-11073 90980-11074</p>	 <p>90980-11137</p>	 <p>90980-11141</p>	 <p>90980-11155</p>



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## &lt;MALE&gt; 2P Waterproof Type

			
90980-11168	90980-11175	90980-11188	90980-11236
			
90980-11247	90980-11249	90980-11254	90980-11272
			
90980-11303	90980-11322	90980-11409	90980-11447
			
90980-11466	90980-11486	90980-11789	90980-11854
			
90980-11863	90980-11865	90980-11901	90980-11945

<MALE> 2P Waterproof Type

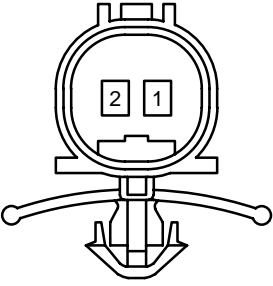
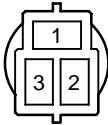


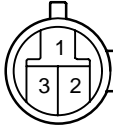





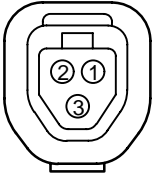

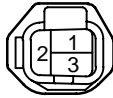
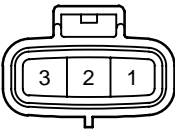
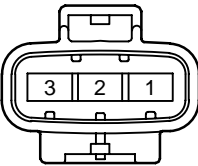








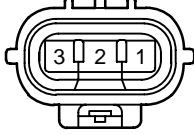
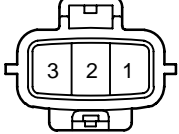

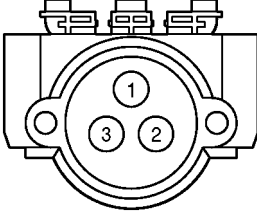
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<MALE> 3P Waterproof Type

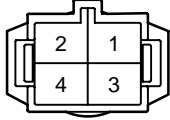
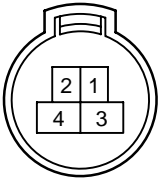
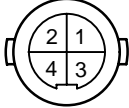
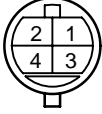



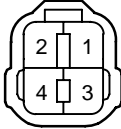
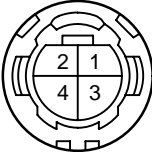





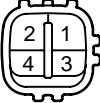


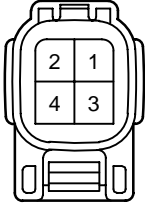


 <p>90980-10093</p>	 <p>90980-10190</p>	 <p>90980-10235</p>	 <p>90980-10244</p>
 <p>90980-10248 90980-10347</p>	 <p>90980-10394 90980-10444</p>	 <p>90980-10492 90980-10493 90980-10774 90980-10787</p>	 <p>90980-10500</p>
 <p>90980-10553 90980-10577 90980-10777</p>	 <p>90980-10682</p>	 <p>90980-10689</p>	 <p>90980-10698</p>
 <p>90980-10840</p>	 <p>90980-10944</p>	 <p>90980-11015</p>	 <p>90980-11044</p>
 <p>90980-11131</p>	 <p>90980-11160</p>	 <p>90980-11169</p>	 <p>90980-11244 90980-11295 90980-11407</p>

<MALE> 3P Waterproof Type







 <p>90980-11293</p>	 <p>90980-11341</p>	 <p>90980-11348</p>	 <p>90980-11607</p>
 <p>90980-11622</p>	 <p>90980-12131</p>		

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## &lt;MALE&gt; 4P Waterproof Type

			
90980-10094	90980-10139	90980-10202	90980-10217
			
90980-10475	90980-10510 90980-11076	90980-10590	90980-10648
			
90980-10662	90980-10749	90980-10751 90980-10768	90980-10868
			
90980-10941	90980-10989	90980-11027	90980-11035
			
90980-11063 90980-11064	90980-11122	90980-11138	90980-11177

<MALE> 4P Waterproof Type

 <p>90980-11262 90980-11328</p>	 <p>90980-11268</p>	 <p>90980-11287</p>	 <p>90980-11291</p>
 <p>90980-11929</p>	 <p>90980-12177</p>		

## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 5P Waterproof Type

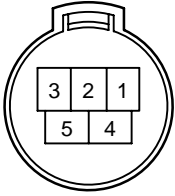
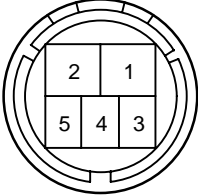
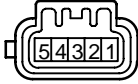
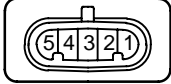



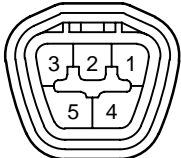



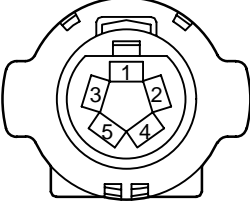
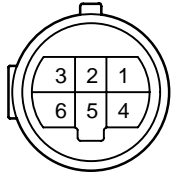

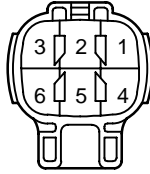
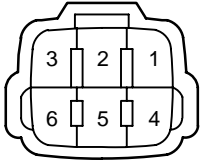


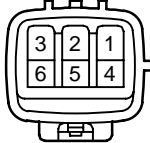

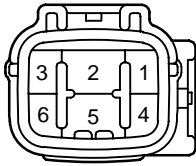
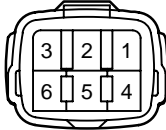
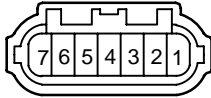
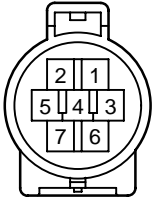

 <p>90980-10161</p>	 <p>90980-10392</p>	 <p>90980-10557 90980-10570</p>	 <p>90980-10642</p>
 <p>90980-10709</p>	 <p>90980-10945</p>	 <p>90980-11021</p>	 <p>90980-11078</p>
 <p>90980-11181</p>	 <p>90980-11412</p>	 <p>90980-11598</p>	 <p>90980-11689</p>

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<MALE> 6P, 7P Waterproof Type

 <p>90980-10194</p>	 <p>90980-10477</p>	 <p>90980-10596</p>	 <p>90980-10650 90980-10984</p>
 <p>90980-10987</p>	 <p>90980-11033</p>	 <p>90980-11193</p>	 <p>90980-11196</p>
 <p>90980-11267</p>	 <p>90980-11289</p>	 <p>90980-10627</p>	 <p>90980-10930</p>
 <p>90980-11171</p>			



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## &lt;MALE&gt; 8P, 9P Waterproof Type

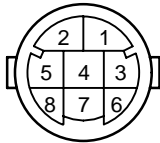
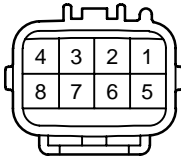
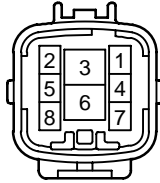
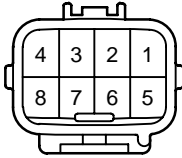
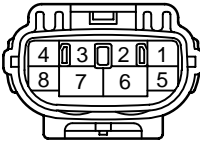
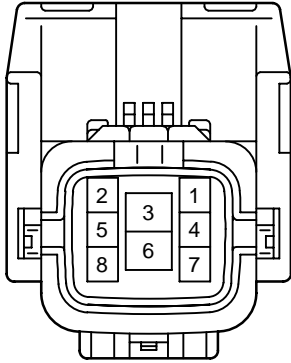
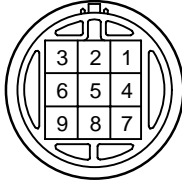
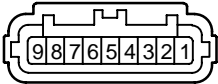
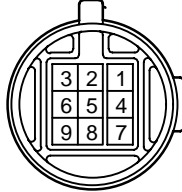
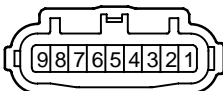
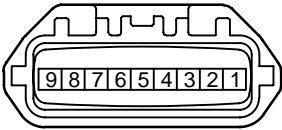
 <p>90980-10204</p>	 <p>90980-10890</p>	 <p>90980-10894</p>
 <p>90980-10896</p>	 <p>90980-11241</p>	 <p>90980-11460</p>
 <p>90980-10379</p>	 <p>90980-10677</p>	 <p>90980-10775</p>
 <p>90980-10826</p>	 <p>90980-11191</p>	

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<MALE> 11P, 12P, 13P, 15P Waterproof Type

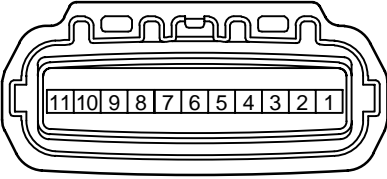
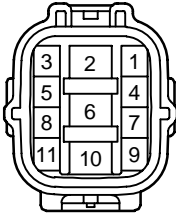
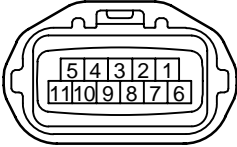
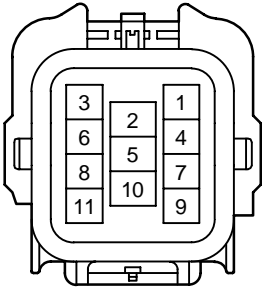
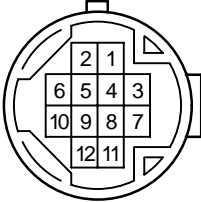

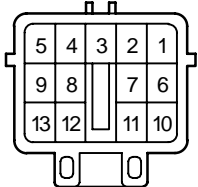
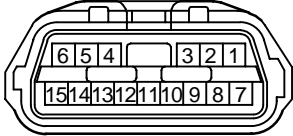
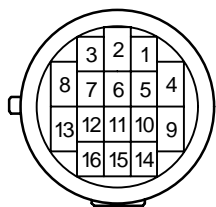
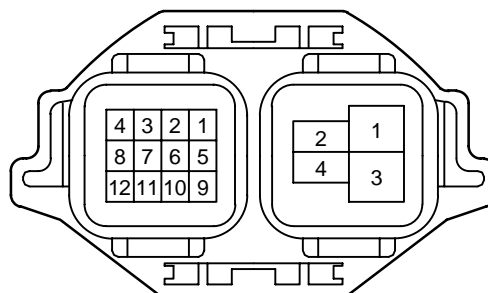
 <p>90980-11173</p>	 <p>90980-11239</p>	 <p>90980-11256</p>
 <p>90980-11609</p>	 <p>90980-10568</p>	 <p>90980-11086</p>
 <p>90980-10653</p>	 <p>90980-11088</p>	

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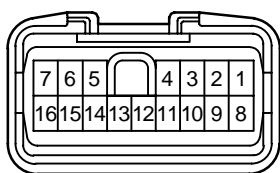
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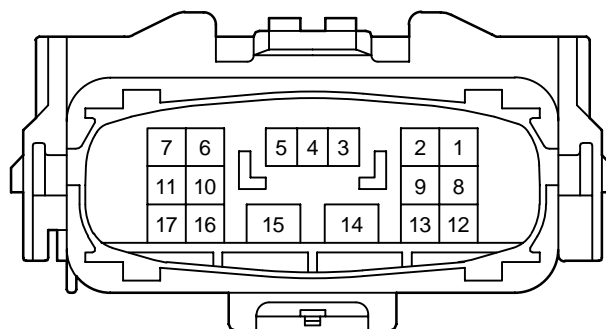
90980-10287



90980-10547

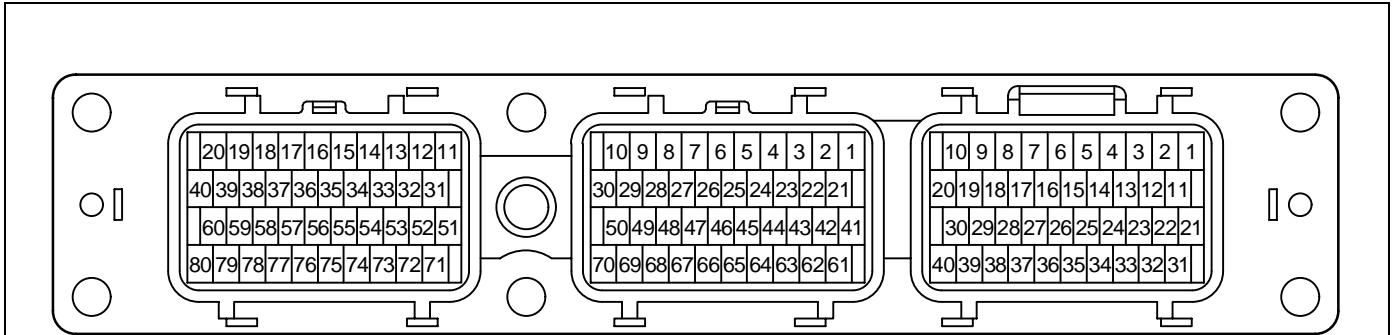


90980-11462



90980-11600

<MALE> 120P Waterproof Type



90980-11213

## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 1P Non-waterproof Type










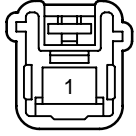



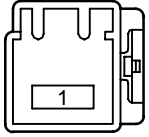



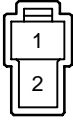
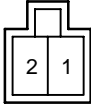
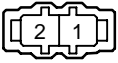
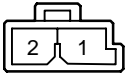



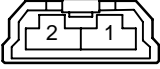




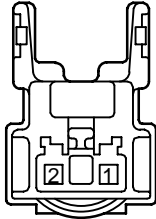



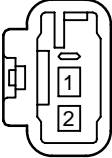
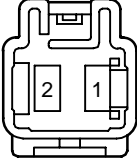
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 <p>90980-10253</p>	 <p>90980-10342</p>	 <p>90980-10396</p>	 <p>90980-10433 90980-10434</p>
 <p>90980-10870 90980-11026 90980-11097</p>	 <p>90980-10994</p>	 <p>90980-11146</p>	 <p>90980-11258</p>
 <p>90980-11737</p>	 <p>90980-11774</p>	 <p>90980-12041</p>	

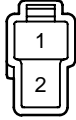

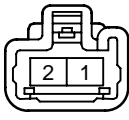
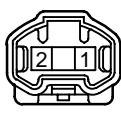




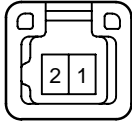

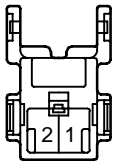

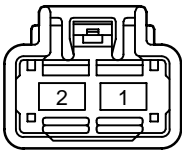
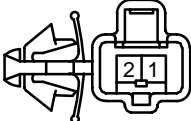

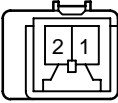
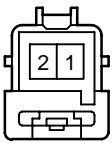
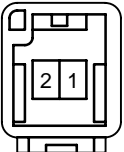
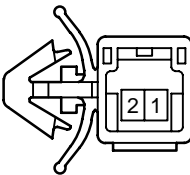
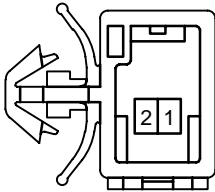
TABLE OF HOUSING SHAPE

<MALE> 2P Non-waterproof Type

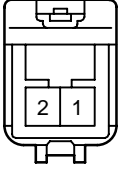
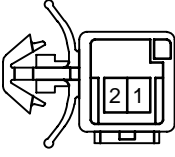
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 <p>90980-10286</p>	 <p>90980-10297</p>	 <p>90980-10344 90980-10346</p>	 <p>90980-10354 90980-10437</p>
 <p>90980-10356</p>	 <p>90980-10424</p>	 <p>90980-10620</p>	 <p>90980-10687</p>
 <p>90980-10824</p>	 <p>90980-10833 90980-11299</p>	 <p>90980-10849</p>	 <p>90980-10859</p>
 <p>90980-10905</p>	 <p>90980-10915</p>	 <p>90980-10934</p>	 <p>90980-10958</p>

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## &lt;MALE&gt; 2P Non-waterproof Type

			
90980-11014	90980-11060	90980-11093	90980-11159
			
90980-11211	90980-11300	90980-11305	90980-11367
			
90980-11368	90980-11395	90980-11545	90980-11589
			
90980-11655	90980-11724	90980-11735	90980-11883
			
90980-11889	90980-11917	90980-11933	90980-11967

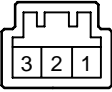
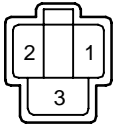
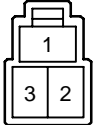

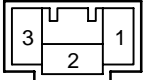
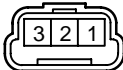

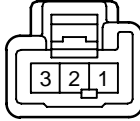
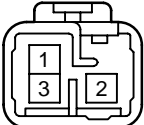

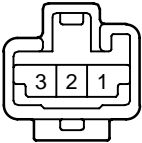
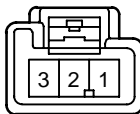
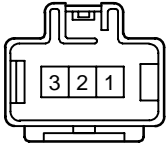

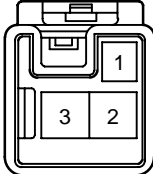
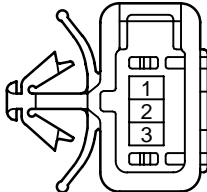
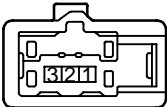

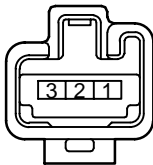
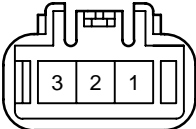
<MALE> 2P Non-waterproof Type

 <p>90980-11992</p>	 <p>90980-12062</p>		



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## &lt;MALE&gt; 3P Non-waterproof Type

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 <p>90980-10257 90980-10300 90980-10410</p>	 <p>90980-10364 90980-10573</p>	 <p>90980-10544</p>	 <p>90980-10907</p>
 <p>90980-10979</p>	 <p>90980-11052</p>	 <p>90980-11229</p>	 <p>90980-11298</p>
 <p>90980-11385</p>	 <p>90980-11470</p>	 <p>90980-11484</p>	 <p>90980-11489</p>
 <p>90980-11620</p>	 <p>90980-11763</p>	 <p>90980-11874</p>	 <p>90980-11936</p>

<MALE> 3P Non-waterproof Type

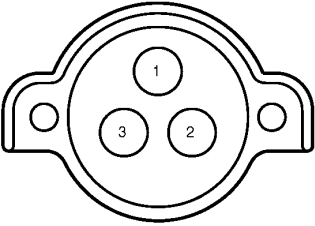
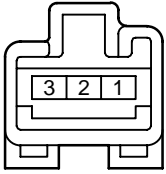
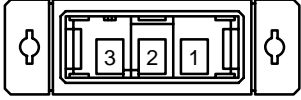
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TABLE OF HOUSING SHAPE

<MALE> 4P Non-waterproof Type

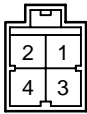

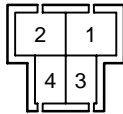
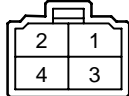
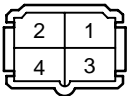
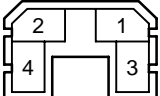
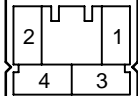
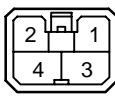
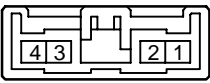


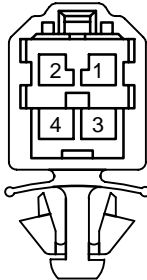

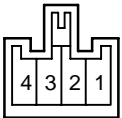
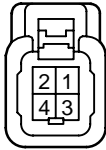
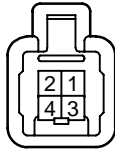
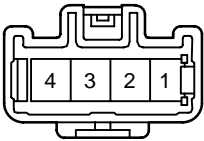
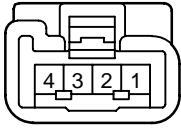
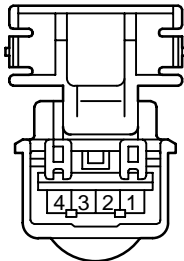
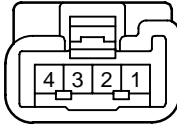

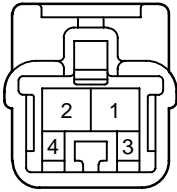
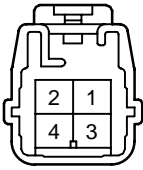
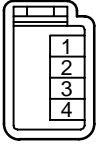
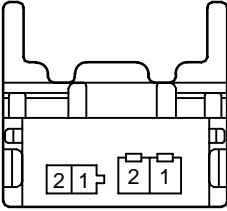

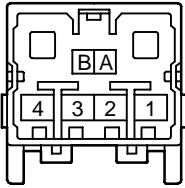
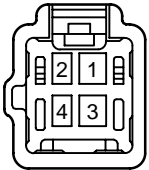

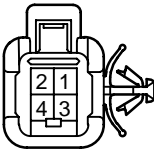
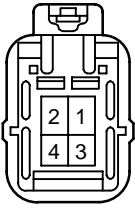
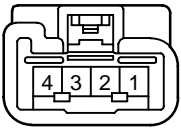
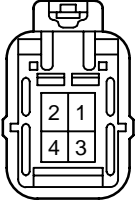
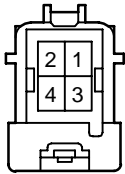
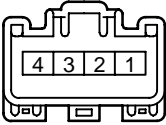
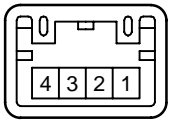
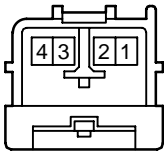

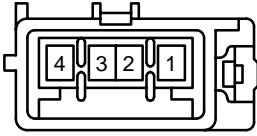
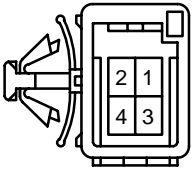
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 <p>90980-10399</p>	 <p>90980-10466</p>	 <p>90980-10502</p>	 <p>90980-10503</p>
 <p>90980-10600</p>	 <p>90980-10691</p>	 <p>90980-10794</p>	 <p>90980-10858</p>
 <p>90980-10866</p>	 <p>90980-11012</p>	 <p>90980-11023</p>	 <p>90980-11100</p>

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<MALE> 4P Non-waterproof Type

 <p>90980-11106</p>	 <p>90980-11126</p>	 <p>90980-11135</p>	 <p>90980-11186</p>
 <p>90980-11301</p>	 <p>90980-11399</p>	 <p>90980-11426</p>	 <p>90980-11605</p>
 <p>90980-11765</p>	 <p>90980-11779</p>	 <p>90980-11809</p>	 <p>90980-11812</p>
 <p>90980-11878</p>	 <p>90980-11891</p>	 <p>90980-11965</p>	 <p>90980-11985</p>
 <p>90980-12016</p>	 <p>90980-12123</p>	 <p>90980-12159</p>	 <p>90980-12212</p>

## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 5P Non-waterproof Type

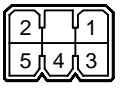
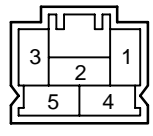
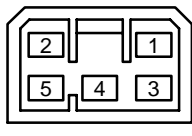
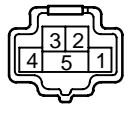
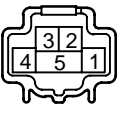
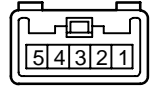
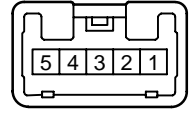
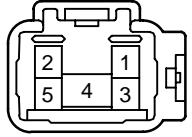
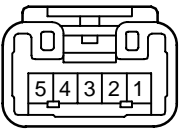

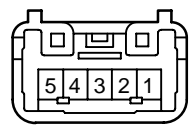
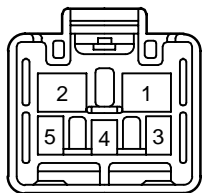
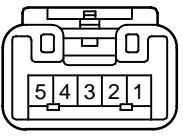
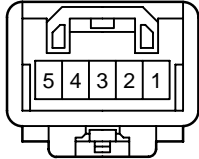
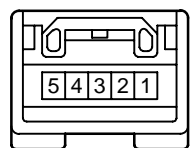
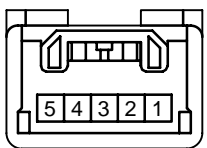
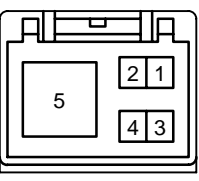
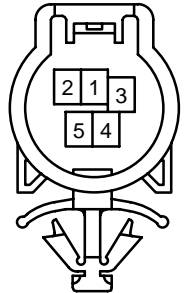
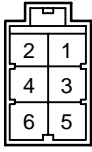
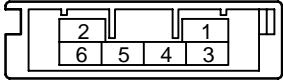
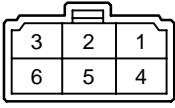
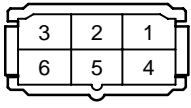
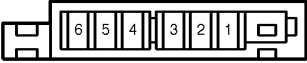


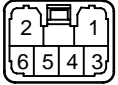
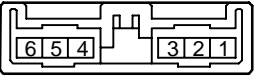
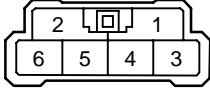
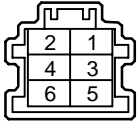
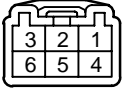
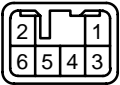
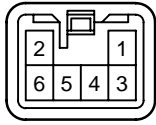
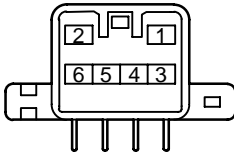
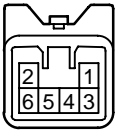
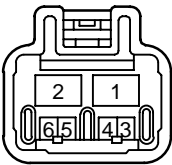
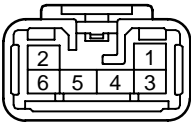
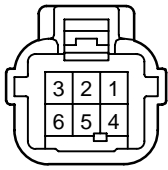
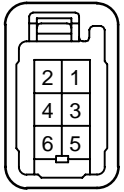
			
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90980-11843	90980-11920	90980-11968	90980-12036
			
90980-12050	90980-12189		

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<MALE> 6P Non-waterproof Type

 <p>90980-10003</p>	 <p>90980-10027</p>	 <p>90980-10172</p>	 <p>90980-10223</p>
 <p>90980-10289</p>	 <p>90980-10312</p>	 <p>90980-10366 90980-10505</p>	 <p>90980-10384 90980-10416 90980-10641</p>
 <p>90980-10401</p>	 <p>90980-10446</p>	 <p>90980-10602</p>	 <p>90980-10603</p>
 <p>90980-10671</p>	 <p>90980-10694</p>	 <p>90980-10793</p>	 <p>90980-10796</p>
 <p>90980-10909</p>	 <p>90980-10975</p>	 <p>90980-10998</p>	 <p>90980-11010</p>

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## &lt;MALE&gt; 6P Non-waterproof Type

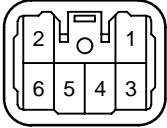
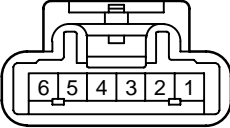
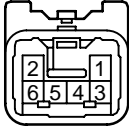
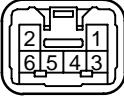
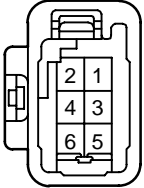


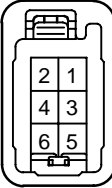
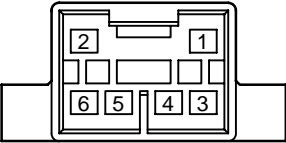
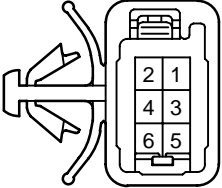
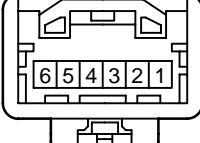
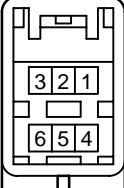
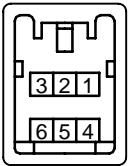
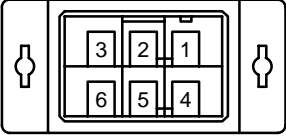
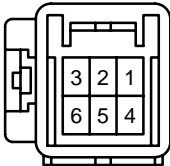
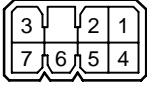
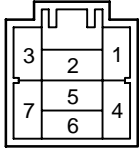
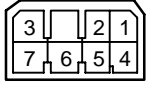
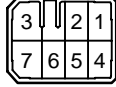

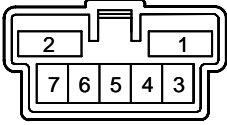
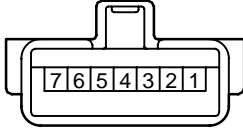
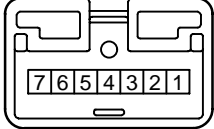
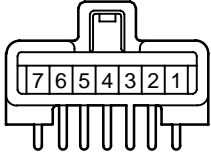

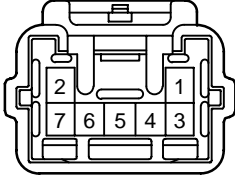
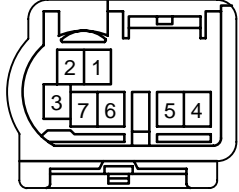
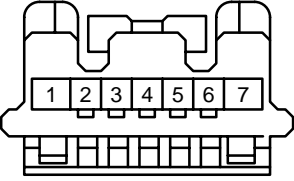
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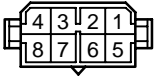
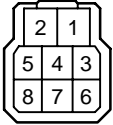
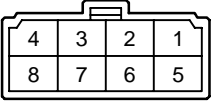
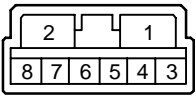
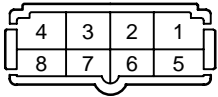
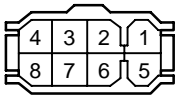
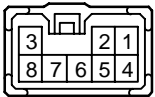
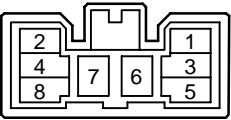
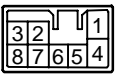
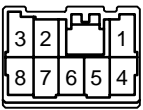
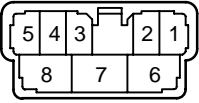
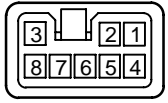
<MALE> 7P Non-waterproof Type

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 <p>90980-10459</p>	 <p>90980-10728 90980-10771</p>	 <p>90980-11164</p>	 <p>90980-11339</p>
 <p>90980-11402</p>	 <p>90980-11528</p>	 <p>90980-11739</p>	 <p>90980-12059</p>
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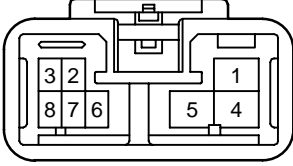
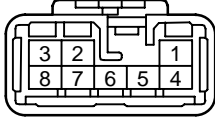
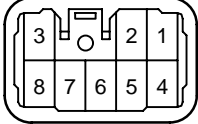
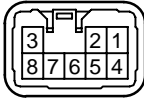
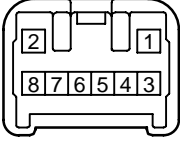
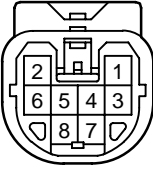
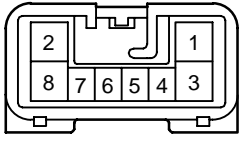
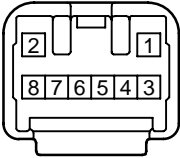

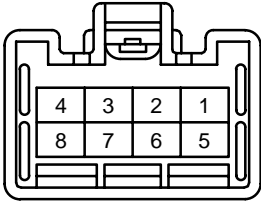
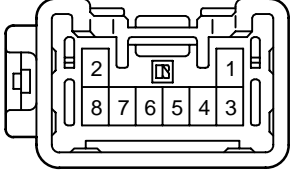


## TABLE OF HOUSING SHAPE

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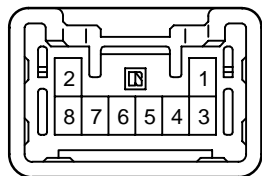
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 <p>90980-10208 90980-10210 90980-10383 90980-10411</p>	 <p>90980-10225</p>	 <p>90980-10279</p>
 <p>90980-10360</p>	 <p>90980-10403</p>	 <p>90980-10418</p>
 <p>90980-10430 90980-10546</p>	 <p>90980-10462</p>	 <p>90980-10769</p>

<MALE> 8P Non-waterproof Type

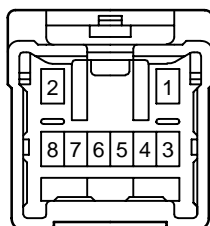
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 <p>90980-11353</p>	 <p>90980-11361</p>	 <p>90980-11389</p>
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## TABLE OF HOUSING SHAPE

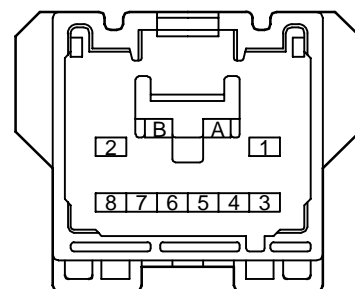
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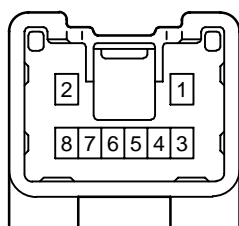
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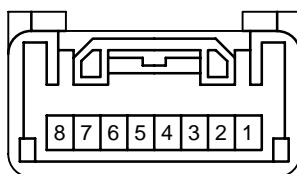
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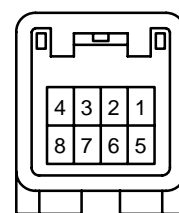
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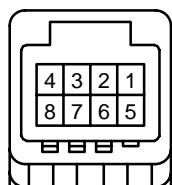
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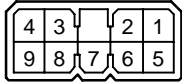
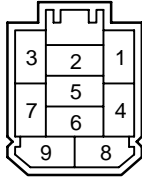
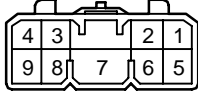
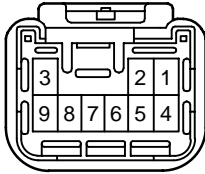
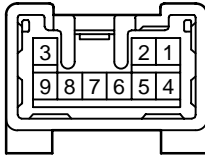



90980-12112



90980-12220

<MALE> 9P Non-waterproof Type

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## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 10P Non-waterproof Type

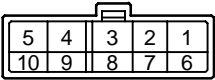
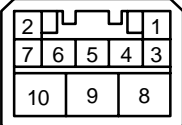
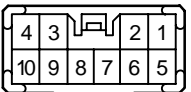
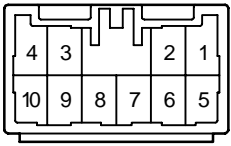
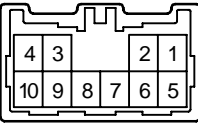
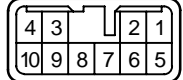
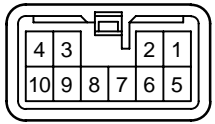
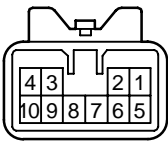
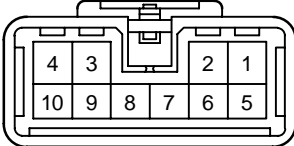
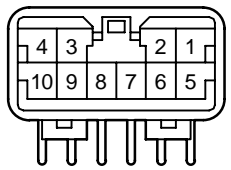
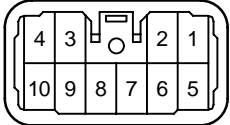
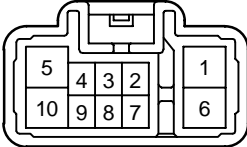
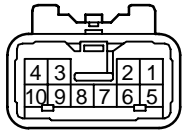
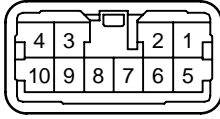
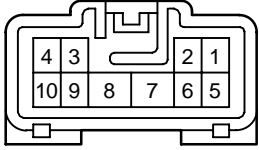
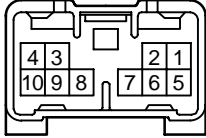
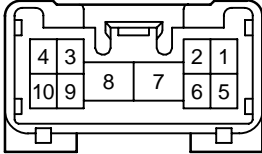
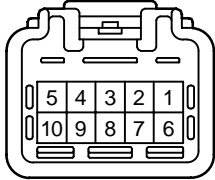
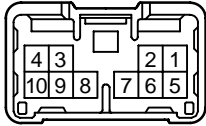
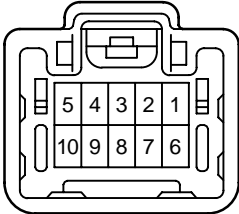
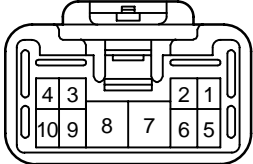
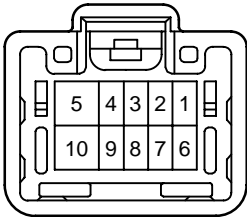
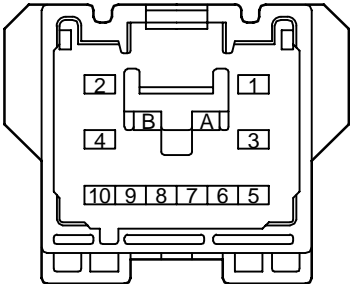
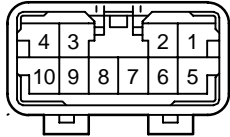
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 <p>90980-10693</p>	 <p>90980-10800</p>	 <p>90980-10861</p>
 <p>90980-10865 90980-11419</p>	 <p>90980-10961</p>	 <p>90980-10992</p>

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<MALE> 10P Non-waterproof Type

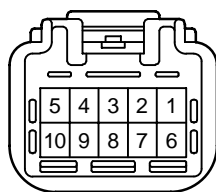
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 <p>90980-11449</p>	 <p>90980-11526</p>	 <p>90980-11536</p>
 <p>90980-11544</p>	 <p>90980-11580</p>	 <p>90980-11596</p>
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## TABLE OF HOUSING SHAPE

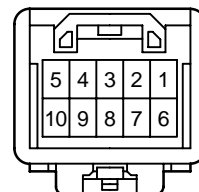
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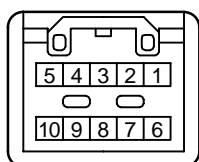
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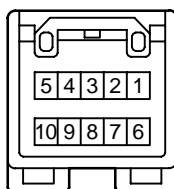
90980-11823



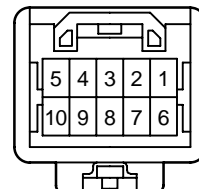
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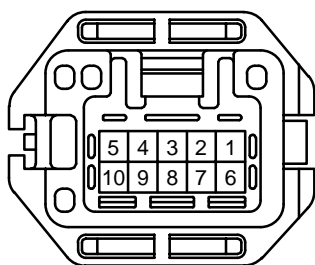
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90980-12249

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<MALE> 11P Non-waterproof Type

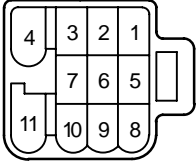
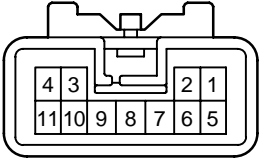
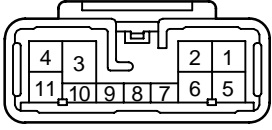
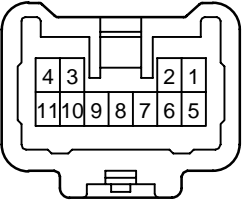
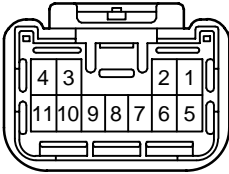
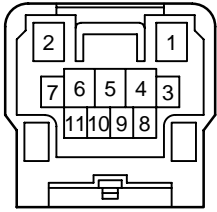
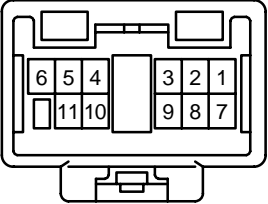
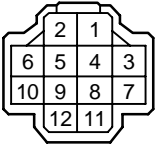
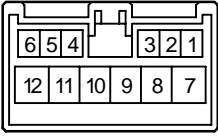
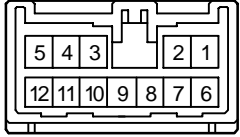
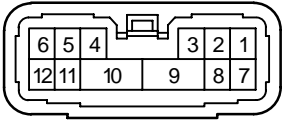
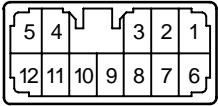
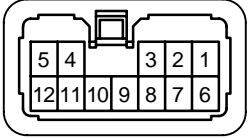
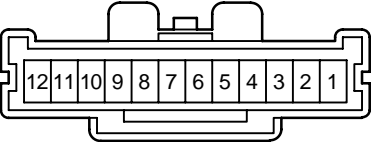
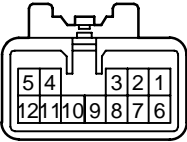
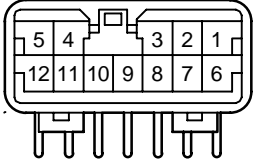
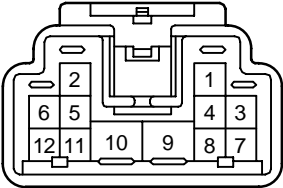
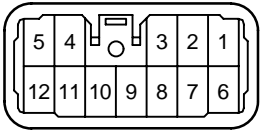
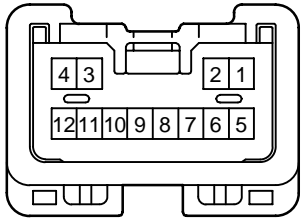
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 <p>90980-11200</p>	 <p>90980-11538</p>	 <p>90908-12002</p>
 <p>90980-12250</p>		



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<MALE> 12P Non-waterproof Type

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 <p>90980-10415</p>	 <p>90980-10436 90980-10440</p>	 <p>90980-10513</p>
 <p>90980-10564</p>	 <p>90980-10802</p>	 <p>90980-10864</p>
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<MALE> 12P Non-waterproof Type

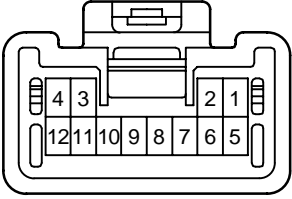
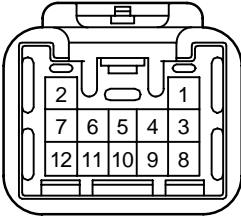
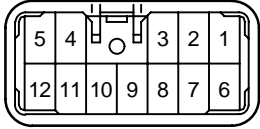
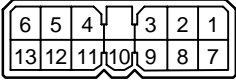
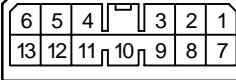
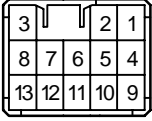
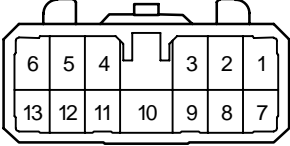
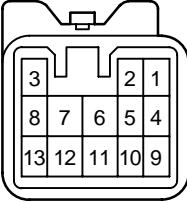
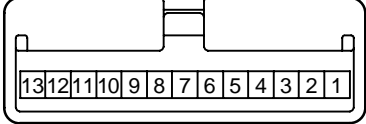
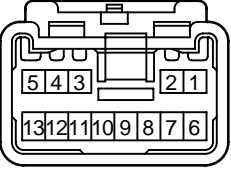
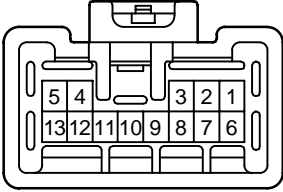
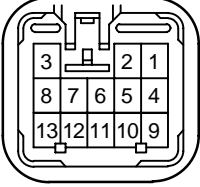
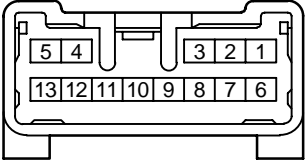
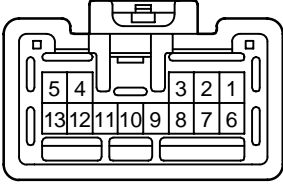
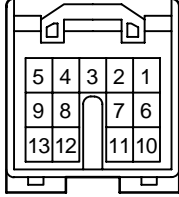
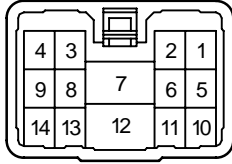
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TABLE OF HOUSING SHAPE

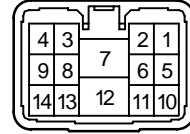
<MALE> 13P Non-waterproof Type

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 <p>90980-11393</p>	 <p>90980-11541</p>	 <p>90980-11568</p>
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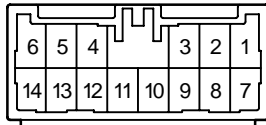
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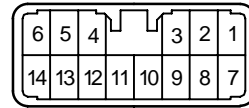
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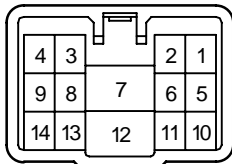
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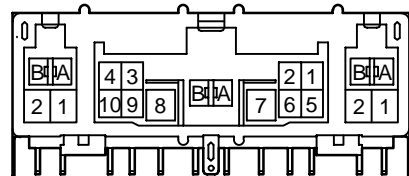
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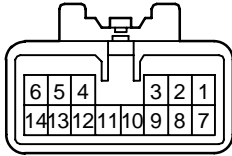
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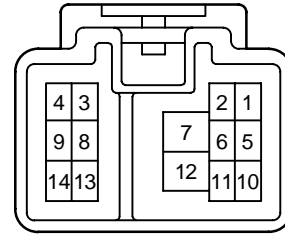
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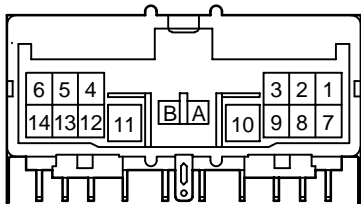
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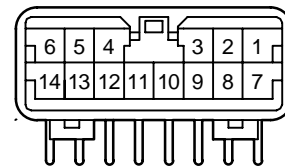
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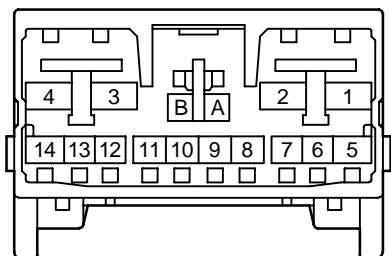
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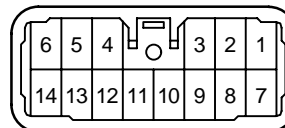
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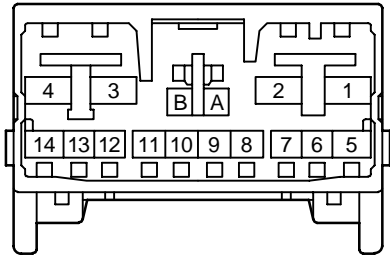


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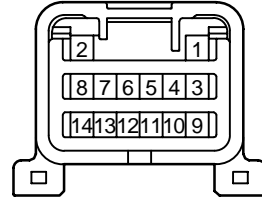


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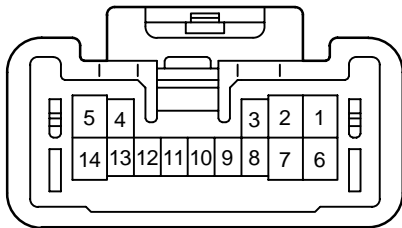
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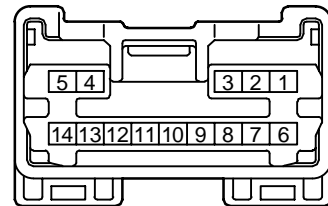
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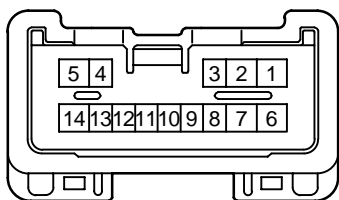
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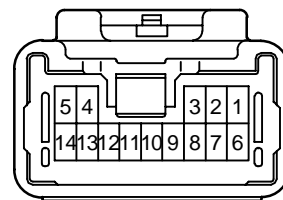
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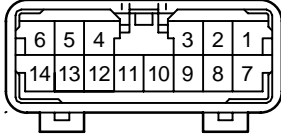
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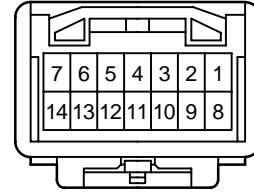
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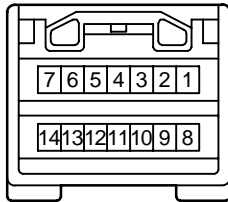
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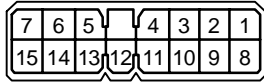
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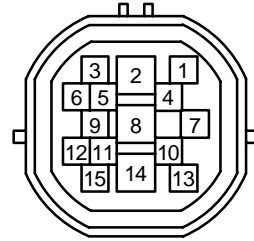
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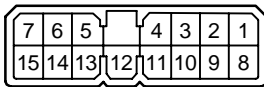
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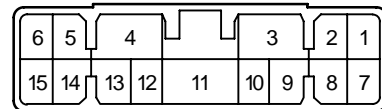
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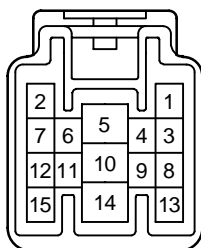
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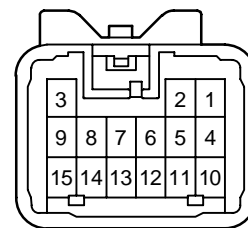
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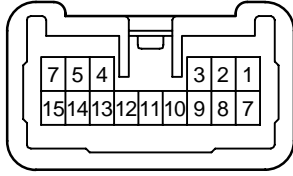


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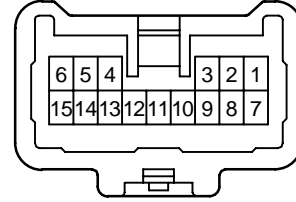


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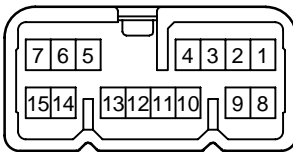
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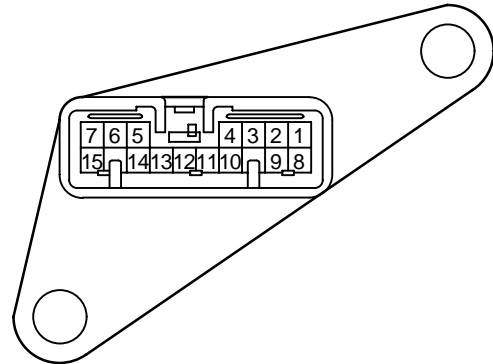
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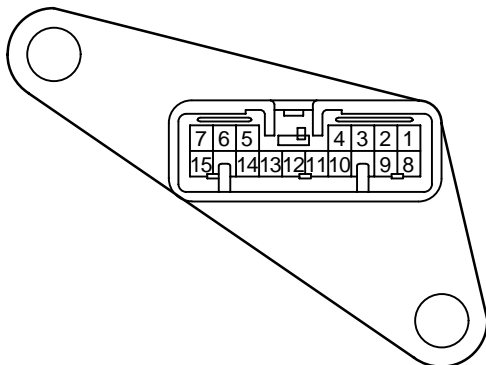
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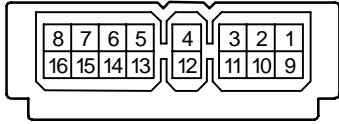


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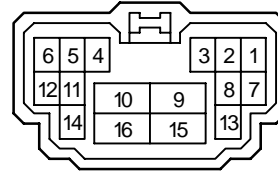


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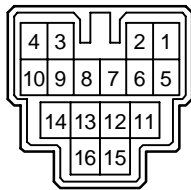
<MALE> 16P Non-waterproof Type



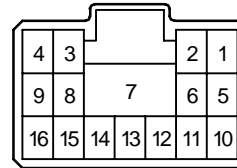
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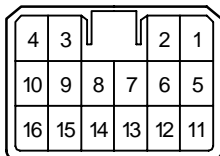
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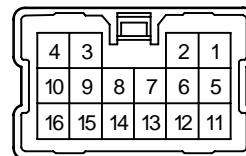
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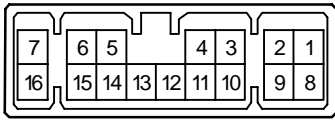
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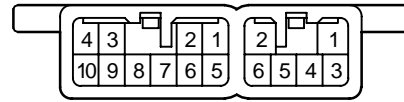
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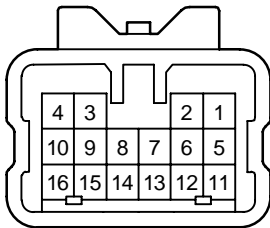
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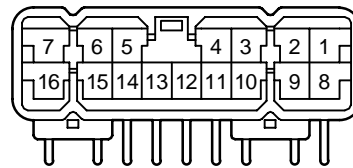
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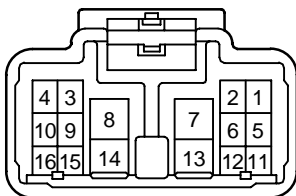
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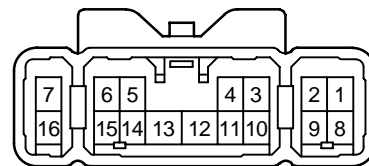
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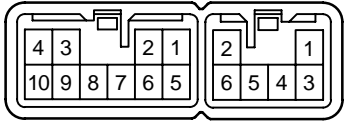


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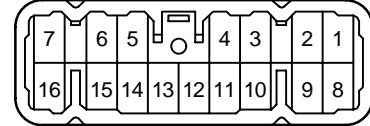


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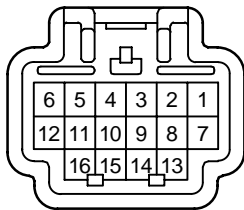
<MALE> 16P Non-waterproof Type



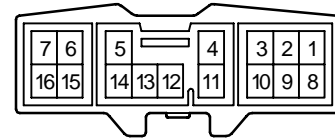
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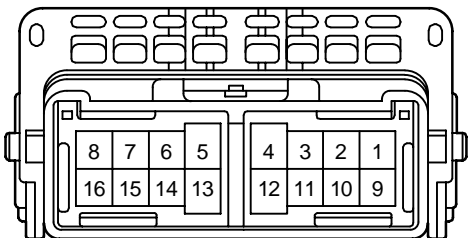
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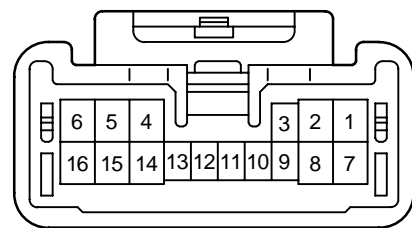
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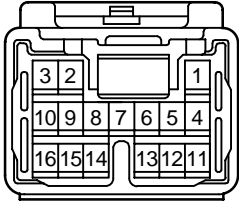
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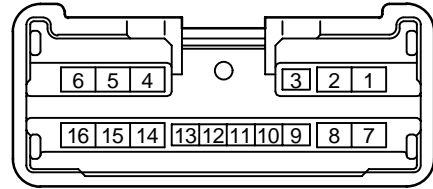
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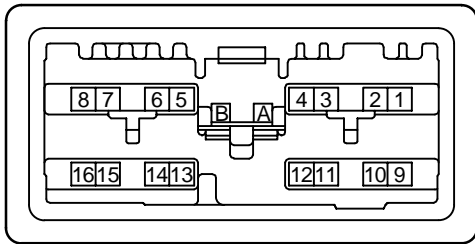
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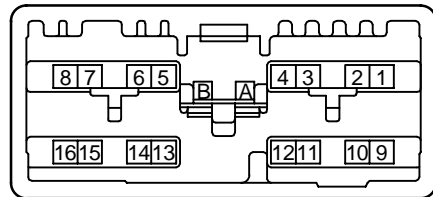
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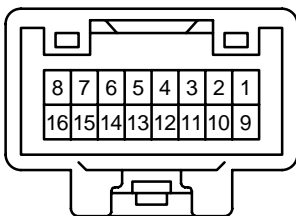
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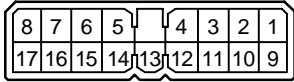


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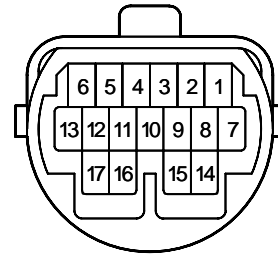


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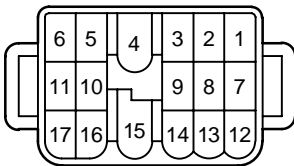
<MALE> 17P Non-waterproof Type



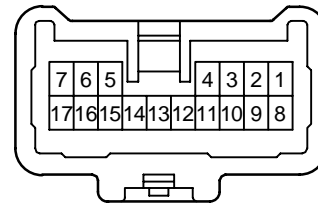
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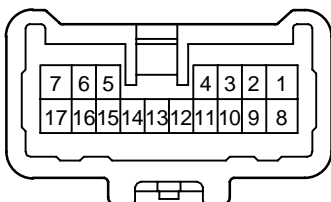
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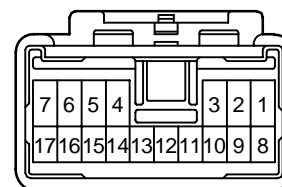
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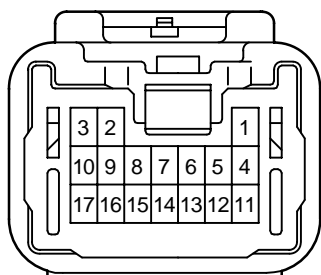
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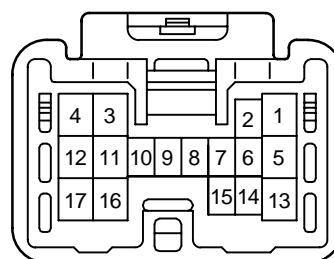
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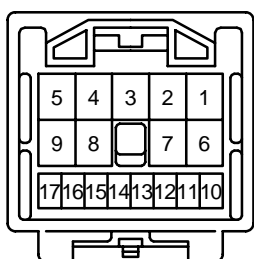
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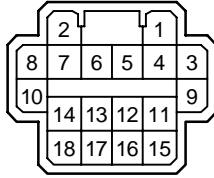


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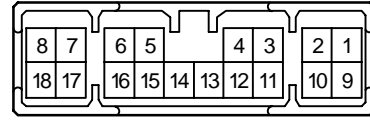


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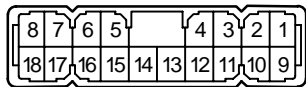
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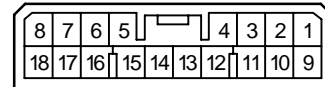
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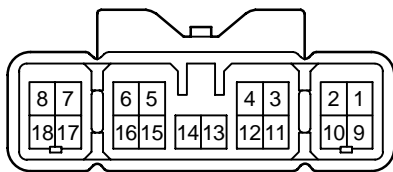
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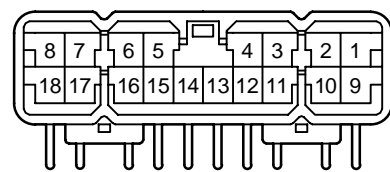
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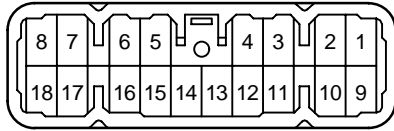


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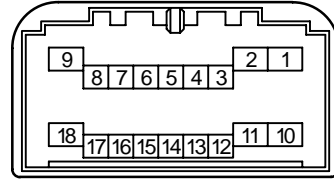


TABLE OF HOUSING SHAPE

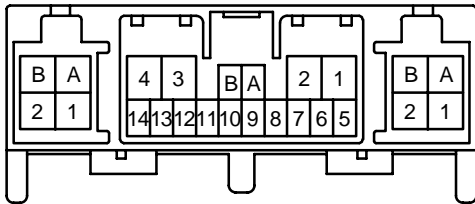
<MALE> 18P Non-waterproof Type



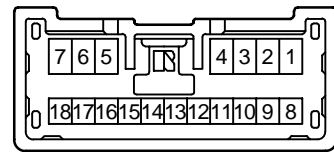
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90980-11127



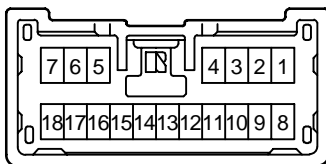
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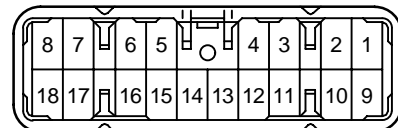
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90980-11496

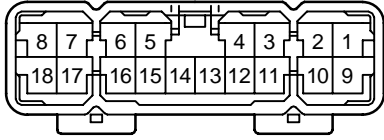


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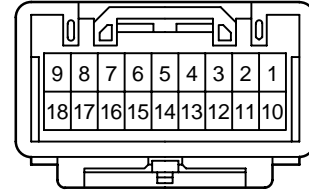


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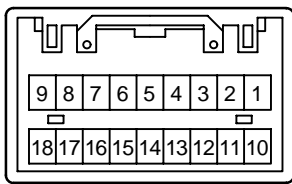
<MALE> 18P Non-waterproof Type



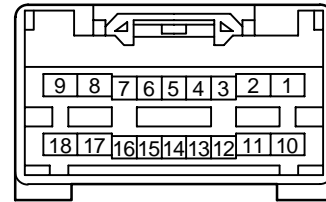
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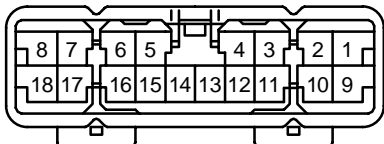
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90980-11949



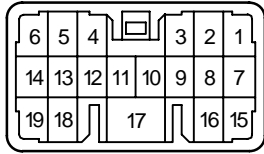
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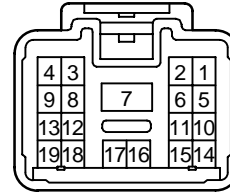
90980-12108

TABLE OF HOUSING SHAPE

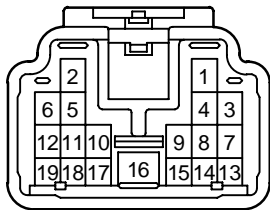
<MALE> 19P Non-waterproof Type



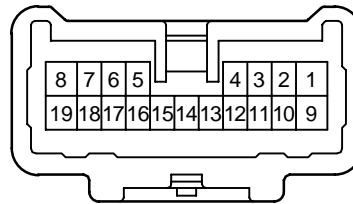
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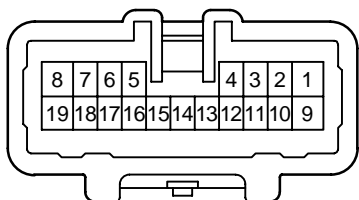
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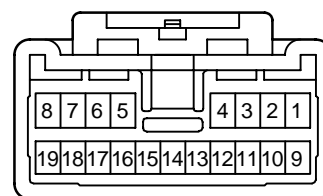
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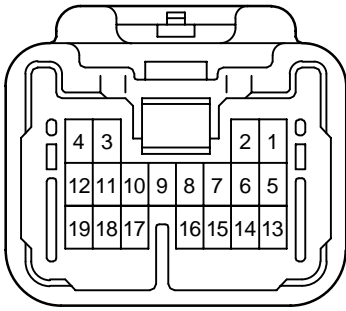
90980-11204



90980-11307



90980-11376

**<MALE> 19P Non-waterproof Type**

90980-11570

## HOUSING PART NUMBER LIST

## List of equivalent for the gold and tin-plated repair wire

Repair Wire Part No.	
Tin-plated (Sn)	Gold-plated (Au)
82998-12160 (2.3.M.U)	82998-24050
-12190 (1.8.F.U)	-12300
-12260 (2.3.M.S)	-24070
-12270 (2.3.F.S)	-24080
-12310 (1.0.F.U)	-12320
-12330 (2.3II.M.U)	-12350
-12340 (2.3II.F.U)	-12360
-12430 (2.3II.M.S)	-12450
-12440 (2.3II.F.S)	-12460
-12790 (2.3II.F.S)	-12780
-12670 (1.0III.M.U)	-12680
-12690 (1.0III.F.U)	-12700
-12720 (1.0III.F.S)	-12730
-24020 (1.0II.F.U)	-24110
-24090 (1.8II.M.U)	-24130

E

## HOUSING PART NUMBER LIST

\* Example : 82998-24050 indicates the gold-plated 82998-12160.

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10001	X	BHC	M	4	U	-	-	-	
10002	X	BHC	F	4	U	-	-	-	
10003	X	BHC	M	6	U	-	-	-	
10004	X	BHC	F	6	U	-	-	-	
10006	X	BHC	F	12	U	-	-	-	
10008	X	BHC	F	16	U	-	-	-	
10010	X	BHC	F	22	U	-	-	-	
10011	X	BHC	M	2	U	-	-	-	
10012	X	BHC	F	2	U	-	-	-	
10018	X	BHC	M	8	U	-	-	-	
10019	X	BHC	F	8	U	-	-	-	
10026	X	TODC	M	16	U	12080	-	L,Y	
10027	X	6.3	M	6	U	-	-	-	
		7.7		6		12010			
10028	X	TODC	F	16	U	12090	-	L,Y	
10029	X	6.3	F	6	U	-	-	-	
		7.7		6		12020			
10030	X	TODC	M	17	U	12080	-	L,Y	
10031	X	TODC	F	17	U	12090	-	L,Y	
10032	X	TODC	M	13	U	12080	-	L,Y	
10033	X	TODC	F	13	U	12090	-	L,Y	
10037	O	MIC	F	17	U	12120	-	L,Y	
10038	X	TODC	M	2	U	12080	-	L,Y	
10039	X	TODC	F	2	U	12090	-	L,Y	
10040	O	TODC	M	5	U	12080	-	L,Y	
10041	X	TODC	F	5	U	12090	-	L,Y	
10042	X	TODC	M	7	U	12080	-	L,Y	
10043	X	TODC	F	7	U	12090	-	L,Y	
10044	O	TODC	M	9	U	12080	-	L,Y	
10045	O	TODC	F	9	U	12090	-	L,Y	
10055	X	TODC	M	3	U	12080	-	L,Y	
10056	X	TODC	F	3	U	12090	-	L,Y	
10057	X	-	-	-	-	-	-	-	
10061	X	MIC	M	13	U	-	-	-	PCB
10062	O	MIC	F	13	U	12120	-	L,Y	
10063	X	MIC	M	21	U	-	-	-	PCB
10064	X	MIC	F	21	U	12120	-	L,Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10065	X	TODC	M	15	U	12080	-	L,Y	
10066	X	TODC	F	15	U	12090	-	L,Y	
10068	X	TODC	M	9	U	-	-	-	PCB
10069	X	SL	F	2	U	12130	-	L,Y	
10070	O	SL	F	3	U	12130	-	L,Y	
10071	O	SL	F	7	U	12130	-	L,Y	
10072	X	6.3	F	3	U	12060	12580	Y	
10087	X	TODC	M	9	U	12080	-	L,Y	
10088	X	6.3	F	3	S	-	-	-	
10090	X	6.3	F	1	S	-	-	-	
10091	X	6.3	M	2	S	-	-	-	
10092	X	6.3	F	2	S	-	-	-	
10093	X	6.3	M	3	S	-	-	-	
10094	X	6.3	M	4	S	-	-	-	
10095	X	6.3	F	4	S	-	-	-	
10096	X	TODC	M	6	S	-	-	-	
10097	X	TODC	F	6	S	-	-	-	
10100	X	TODC	M	16	S	-	-	-	
10101	X	TODC	F	16	S	-	-	-	
10106	X	TODC	M	9	U	-	-	-	PCB
10108	X	SL	F	2	U	12130	-	L,Y	
10109	X	SL	F	2	U	12130	-	L,Y	
10110	X	6.3	F	3	S	-	-	-	
10111	X	FPC	F	3	U	-	-	-	
10112	X	FPC	F	8	U	-	-	-	
10113	X	FPC	F	8	U	-	-	-	
10114	O	7.7	M	1	S	-	-	-	
10115	O	7.7	F	1	S	-	-	-	
10116	X	6.3	F	2	S	-	-	-	
10117	X	TODC	M	5	U	12080	-	L,Y	
10119	X	FPC	F	8	U	-	-	-	
10121	X	TODC	F	2	U	12090	-	L,Y	
10122	X	7.7	M	2	S	-	-	-	
10123	X	7.7	F	2	S	-	-	-	
10124	X	6.3	F	2	U	-	-	-	
10125	X	TODC	M	1	S	-	-	-	
10126	X	TODC	M	4	U	12080	-	L,Y	
10127	X	TODC	F	4	U	12090	-	L,Y	
10130	X	TODC	M	5	U	-	-	-	PCB

E

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10131	X	LAC	M	22	U	12100	-	L,Y	
10132	O	LAC	F	13	U	12110	-	L,Y	
10133	X	LAC	F	9	U	12110	-	L,Y	
10138	X	MIC	M	13	U	-	-	-	PCB
10139	X	6.3	M	4	S	-	-	-	
10140	X	6.3	F	4	S	-	-	-	
10141	X	SL	F	2	U	12130	-	L,Y	
10142	X	6.3	F	4	U	-	-	-	
10143	X	FPC	F	3	U	-	-	-	
10144	X	6.3	M	4	U	-	-	-	
10145	X	6.3	M	3	U	-	-	-	
		7.7		3		12010	-	Y	
10146	X	6.3	F	2	U	-	-	-	
		7.7		1		12040	-	Y	
10147	X	TODC	M	8	U	12080	-	L,Y	
10148	X	TODC	F	8	U	12090	-	L,Y	
10149	X	TODC	M	12	U	12080	-	L,Y	
10150	X	TODC	F	12	U	12090	-	L,Y	
10151	X	MIC	M	22	U	-	-	-	PCB
10152	O	MIC	F	9	U	12120	-	L,Y	
10153	X	2.3	F	12	U	12170	-	L	
10154	X	6.3	M	3	U	-	-	-	
		7.7		3		-	-	-	
10156	O	6.3	M	2	S	-	-	-	w/o Clamp
10157	O	6.3	F	2	S	-	-	-	
10158	X	FPC	F	10	U	-	-	-	
10159	X	FPC	F	10	U	-	-	-	
10160	X	7.7	M	1	U	12010	-	Y	
10161	X	6.3	M	5	S	-	-	-	w/o Clamp
10162	O	6.3	F	5	S	-	-	-	
10163	X	TODC	M	3	U	12080	-	L,Y	
10164	X	TODC	F	3	U	12090	-	L,Y	
10165	X	7.7	F	1	U	12020	-	Y	
10170	X	6.3	M	4	U	12050	-	Y	w/o Clamp
10171	O	6.3	F	4	U	12060	12580	Y	
10172	O	6.3	M	6	U	12050	-	Y	
10173	O	6.3	F	6	U	12060	12580	Y	
10174	O	6.3	M	8	U	12050	-	Y	
10175	O	6.3	F	8	U	12060	12580	Y	



## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10176	O	6.3	M	10	U	12050	-	Y	
10177	O	6.3	F	10	U	12060	12580	Y	
10178	O	6.3	M	1	U	12050	-	Y	
10179	O	6.3	F	1	U	12060	12580	Y	
10182	O	TODC	M	1	U	12080	-	L,Y	
10183	O	TODC	F	1	U	12090	-	L,Y	
10184	X	TODC	F	2	S	-	-	-	
10185	X	7.7	F	2	U	12040	-	Y	
10186	X	6.3	M	2	U	12050	-	Y	
		7.7		1		12030	-	Y	
10187	X	6.3	M	2	U	12050	-	Y	
		7.7		1		12030	-	Y	
10188	X	6.3	M	2	U	12050	-	Y	
		7.7		1		12030	-	Y	
10189	X	6.3	F	2	U	12060	12580	Y	
		7.7		1		12040	-	Y	
10190	X	EJ	M	3	S	-	-	-	
10191	X	EJ	F	3	S	-	-	-	
10192	X	EJ	M	2	S	-	-	-	
10193	X	EJ	F	2	S	-	-	-	
10194	X	TODC	M	6	S	-	-	-	
10195	X	TODC	F	6	S	-	-	-	
10196	X	6.3	F	4	U	12060	12580	Y	
10197	X	TODC	F	1	S	-	-	-	
10198	X	6.3	M	2	S	-	-	-	
		7.7		1		-	-	-	
10199	X	6.3	F	2	S	-	-	-	
		7.7		1		-	-	-	
10200	X	EJ	M	1	S	-	-	-	
10201	X	EJ	F	1	S	-	-	-	
10202	X	EJ	M	4	S	-	-	-	
10203	X	EJ	F	4	S	-	-	-	
10204	X	EJ	M	8	S	-	-	-	
10205	X	EJ	F	8	S	-	-	-	
10206	X	TODC	M	13	U	-	-	-	PCB
10207	X	TODC	F	21	U	12090	-	L,Y	
10208	X	6.3	M	8	U	-	-	-	w/ Flange
		TODC		8		12080	-	L,Y	

E

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10209	X	6.3 TODC	F	2 6	U	12060 12090	12580 -	Y L,Y	
10210	X	6.3 TODC	M	2 6	U	12050 12080	- -	Y L,Y	w/o Clamp
10211	X	TODC	M	7	U	12080	-	L,Y	
10212	X	TODC	M	13	U	12080	-	L,Y	
10213	O	6.3	M	2	U	12050	-	Y	w/o Clamp
10214	O	6.3	F	2	U	12060	12580	Y	
10215	X	6.3	M	3	U	12050	-	Y	w/o Clamp
10216	O	6.3	F	3	U	12060	12580	Y	
10217	X	TODC	M	4	S	-	-	-	
10218	X	TODC	F	4	S	-	-	-	
10219	X	6.3	M	4	U	12050	-	Y	
10220	X	6.3	F	4	S	-	-	-	
10221	X	6.3	F	4	U	12060	12580	Y	
10222	X	6.3	F	3	U	12060	12580	Y	
10223	X	6.3	M	6	U	12050	-	Y	
10224	X	6.3	F	6	U	12060	12580	Y	
10225	X	6.3	M	8	U	12050	-	Y	
10228	X	HEAD-LAMP	F	3	U	24140	24200	L,Y	
10229	X	6.3	F	1	U	12060	12580	Y	
10231	X	6.3	M	3	U	12050	-	Y	
10232	X	6.3	F	3	U	12060	12580	Y	
10233	X	6.3 TODC	M	25 25	U	12050 12080	- -	Y L,Y	
10234	X	6.3	F	3	U	-	-	-	
10235	X	6.3 7.7	M	2 1	S	- -	- -	- -	
10236	X	6.3 7.7	F	2 1	S	- -	- -	- -	
10237	X	6.3	M	4	U	12050	-	Y	
10238	X	7.7	F	2	U	12020	-	Y	
10239	X	6.3	F	3	S	-	-	-	
10240	O	TODC	M	1	S	-	-	-	
10241	O	TODC	F	1	S	-	-	-	
10242	X	TODC	M	2	S	-	-	-	
10243	X	TODC	F	2	S	-	-	-	
10244	O	TODC	M	3	S	-	-	-	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10245	X	TODC	F	3	S	-	-	-	
10246	O	6.3	M	1	S	-	-	-	
10247	O	6.3	F	1	S	-	-	-	
10248	X	6.3	M	3	S	-	-	-	w/o Clamp
10249	O	6.3	F	3	S	-	-	-	
10250	X	6.3	F	1	U	12060	12580	Y	
10251	X	6.3	M	1	U	12050	-	Y	w/o Clamp
10252	X	6.3	F	1	U	12060	12580	Y	
10253	X	6.3	M	1	U	12050	-	Y	
10254	X	6.3	F	1	U	12060	12580	Y	
10255	X	6.3	M	2	U	12050	-	Y	
10256	X	6.3	F	2	U	12060	12580	Y	
10257	X	6.3	M	3	U	12050	-	Y	w/o Clamp
10258	X	6.3	F	3	U	12060	12580	Y	
10259	X	6.3	M	4	U	12050	-	Y	
10260	X	6.3	F	4	U	12060	12580	Y	
10261	X	6.3	M	5	U	12050	-	Y	
10262	X	6.3	F	5	U	12060	12580	Y	
10263	X	6.3	M	7	U	12050	-	Y	
10264	X	6.3	F	7	U	12060	12580	Y	
10265	X	6.3	M	9	U	12050	-	Y	
10266	X	6.3	F	9	U	12060	12580	Y	
10267	X	MIC	M	9	U	-	-	-	PCB
10272	X	LC	M	8	U	-	-	-	
10273	X	LC	F	8	U	-	-	-	
10274	O	TODC	F	5	U	12090	-	L,Y	
10275	X	TODC	M	7	U	12080	-	L,Y	
10276	X	6.3	M	5	U	12050	-	Y	
10277	X	6.3	M	7	U	12050	-	Y	
10278	X	6.3	M	9	U	12050	-	Y	
10279	X	TODC	M	8	U	12080	-	L,Y	
10280	X	TODC	F	8	U	12090	-	L,Y	
10281	X	6.3	M	3	U	12050	-	Y	
		TODC		7		12080	-	L,Y	
10282	X	6.3	F	3	U	12060	12580	Y	
		TODC		7		12090	-	L,Y	
10283	O	6.3	M	3	U	12050	-	Y	w/ Clamp
10284	X	TODC	M	18	U	12080	-	L,Y	
10285	X	TODC	F	18	U	12090	-	L,Y	

E

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10286	X	TODC	M	2	U	12080	-	L,Y	
10287	X	TODC	M	16	S	-	-	-	
10288	X	TODC	F	16	S	-	-	-	
10289	X	LC	M	6	U	-	-	-	
10290	X	LC	F	6	U	-	-	-	
10291	X	LC	M	14	U	-	-	-	
10292	X	LC	F	14	U	-	-	-	
10293	X	PULSE LOCK	M	52	U	-	-	-	PCB
10294	O	PULSE LOCK	F	10	U	12200	-	L,Y	
10295	O	PULSE LOCK	F	18	U	12210	-	L	
10296	O	PULSE LOCK	F	24	U	12210	-	L	
10297	X	TODC	M	2	U	12080	-	L,Y	
10298	X	TODC	F	2	U	12090	-	L,Y	
10299	X	6.3	M	3	U	12050	-	Y	
10300	X	6.3	M	3	U	12050	-	Y	w/ Flange
10301	X	MFPC	F	8	U	12150	-	L	
10302	O	MFPC	F	10	U	12150	-	L	
10303	O	MFPC	F	12	U	12150	-	L	
10304	X	MFPC	F	10	U	12150	-	L	
10305	X	6.3	M	2	U	12050	-	Y	w/ Clamp
10306	X	6.3 TODC	M	2 2	U	12050 12080	- -	Y L,Y	
10307	X	6.3 TODC	F	2 2	U	12060 12090	12580 -	Y L,Y	
10308	X	MIC	M	5	U	-	-	-	PCB
10309	X	MIC	F	5	U	12120	-	L,Y	
10310	X	MIC	M	7	U	-	-	-	PCB
10311	X	MIC	F	7	U	12120	-	L,Y	
10312	X	TODC	M	6	U	12080	-	L,Y	
10313	X	TODC	F	6	U	12090	-	L,Y	
10314	X	TODC	M	5	U	12080	-	L,Y	
10315	X	MODU	M	26	U	-	-	-	
10316	X	MODU	F	26	U	-	-	-	
10317	X	6.3 TODC	M	1 8	U	12050 12080	- -	Y L,Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10318	X	6.3 TODC	F	1 8	U	12060 12090	12580 -	Y L,Y	
10319	X	6.3 TODC	F	1 10	U	12060 12090	12580 -	Y L,Y	
10320	X	2.3	F	2	U	12170	-	L	
10321	X	2.3	F	8	U	12170	-	L	
10322	O	2.3	F	10	U	12170	-	L	
10323	X	2.3	M	13	U	12160*	-	L	
10324	X	2.3	F	13	U	12170	-	L	
10325	O	2.3	M	18	U	12160*	-	L	
10326	O	2.3	F	18	U	12170	-	L	
10327	X	2.3	F	20	U	12170	-	L	
10328	X	2.3	F	22	U	12170	-	L	
10329	X	2.3 6.3	M	12 2	U	12160* 12050	- -	L Y	
10330	X	2.3 6.3	F	12 2	U	12170 12060	- 12580	L Y	
10331	X	2.3 6.3	F	14 1	U	12170 12060	- 12580	L Y	
10332	X	7.7	F	1	U	12040	-	Y	
10333	X	6.3	F	2	U	12060	12580	Y	
10334	X	6.3	F	6	U	12060	12580	Y	
10335	X	6.3	F	6	U	12060	12580	Y	
10336	X	6.3	F	8	U	12060	12580	Y	
10337	X	6.3	F	11	U	12060	12580	Y	
10338	X	6.3	F	11	U	12060	12580	Y	
10339	X	6.3 7.7	F	4 1	U	12060 12040	12580 -	Y Y	
10340	X	6.3 7.7	F	2 3	U	12060 12040	12580 -	Y Y	
10341	X	6.3	F	3	S	12540	-	Y	
10342	X	7.7	M	1	U	12030	-	Y	
10343	X	7.7	F	1	U	12040	-	Y	
10344	X	6.3	M	2	U	12050	-	Y	w/o Clamp
10345	X	6.3	F	2	U	12060	12580	Y	
10346	X	6.3	M	2	U	12050	-	Y	w/ Clamp
10347	O	6.3	M	3	S	12050	-	Y	w/ Clamp
10348	X	6.3	F	2	U	12060	12580	Y	

E

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10349	X	PULSE LOCK	M	30	U	-	-	-	PCB
10350	X	PULSE LOCK	F	18	U	12200	-	L,Y	
10351	O	PULSE LOCK	F	12	U	12200	-	L,Y	
10352	X	TODC	F	2	S	-	-	-	
10353	O	TODC	F	3	S	-	-	-	
10354	X	2.3	M	2	U	12160*	-	L	w/o Clamp
10355	O	2.3	F	2	U	12170	-	L	
10356	O	7.7	M	2	U	12030	-	Y	
10357	O	7.7	F	2	U	12040	-	Y	
10358	X	6.3	F	8	U	12060	12580	Y	
10359	O	6.3	F	1	U	12060	12580	Y	
10360	X	2.3	M	8	U	12160*	-	L	
10361	X	2.3	M	20	U	12160*	-	L	
10362	O	SP	F	2	U	12530	-	L,Y	
10363	X	5.2	F	1	U	-	-	-	
10364	X	2.3	M	3	U	12160*	-	L	w/o Clamp
10365	O	2.3	F	3	U	12170	-	L	
10366	O	2.3	M	6	U	12160*	-	L	w/o Clamp
10367	O	2.3	F	6	U	12170	-	L	
10368	X	MFPC	F	14	U	12150	-	L	
10369	O	MFPC	F	14	U	12150	-	L	
10370	X	PULSE LOCK	M	42	U	-	-	-	PCB
10371	O	PULSE LOCK	F	14	U	12210	-	L	
10372	X	MFPC	F	12	U	12150	-	L	
10373	X	7.7 TODC	F	2 2	S	- -	- -	- -	
10374	X	7.7	M	2	S	-	-	-	
10375	X	2.3	M	10	U	12160*	-	L	w/o Flange
10376	X	SP SP	F	5 5	U	12520 12530	- -	L,Y L,Y	
10377	X	SP	F	10	U	12530	-	L,Y	
10378	O	MIC	F	4	U	12120	-	L,Y	
10379	X	TODC	M	9	S	-	-	-	
10380	X	TODC	F	9	S	-	-	-	w/o Clamp
10381	X	TODC	F	9	S	-	-	-	w/ Clamp

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10382	X	6.3 7.7	F	4 2	U	12060 12040	12580 -	Y Y	
10383	X	6.3 TODC	M	2 6	U	- 12080	- -	- L,Y	w/ Flange
10384	O	2.3	M	6	U	12160*	-	L	w/o Flange
10385	X	7.7	F	2	U	12040	-	Y	
10386	X	6.3	F	9	U	12060	12580	Y	
10392	X	TLC TODC	M	3 2	S	12280 -	- -	R -	
10393	X	TLC TODC	F	3 2	S	12290 -	- -	R -	
10394	X	TLC	M	3	S	12280	-	R	w/ Clamp
10395	X	TLC	F	3	S	12290	-	R	
10396	X	TLC	M	1	U	12220	-	L	
10397	X	2.3	F	12	U	12170	-	L	
10398	X	TLC	F	1	U	12230	-	L	
10399	O	TLC	M	4	U	12220	-	L	
10400	X	TLC	F	4	U	12230	-	L	
10401	O	TLC	M	6	U	12220	-	L	
10402	O	TLC	F	6	U	12230	-	L	
10403	X	TLC TODC	M	6 2	U	12220 12080	- -	L L,Y	
10404	X	TLC TODC	F	6 2	U	12230 12090	- -	L L,Y	
10405	X	2.3 TLC	M	6 6	U	12160* 12220	- -	L L	
10406	X	2.3 TLC	F	6 6	U	12170 12230	- -	L L	
10407	X	TLC	M	12	U	12220	-	L	
10408	X	TLC	F	12	U	12230	-	L	
10410	X	6.3	M	3	U	12050	-	Y	w/ Clamp
10411	X	6.3 TODC	M	2 6	U	12050 12080	- -	Y L,Y	w/ Clamp
10412	X	6.3	M	2	S	-	-	-	w/ Clamp
10413	X	2.3	M	18	U	12160*	-	L	
10414	O	2.3	F	6	U	12170	-	L	
10415	X	2.3 6.3	M	10 2	U	12160* 12050	- -	L Y	
10416	X	2.3	M	6	U	-	-	-	PCB

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980- 10417	X	2.3	M	10	U	82998- -	82998- -	-	PCB
10418	X	2.3 TODC	M	6 2	U	12160* 12080	- -	L L,Y	
10419	X	2.3 TODC	F	6 2	U	12170 12090	- -	L L,Y	
10420	X	2.3	F	3	U	12170	-	L	
10421	X	2.3 6.3	F	10 2	U	12170 12060	- 12580	L Y	
10422	X	2.3 6.3	M	12 2	U	12160* 12050	- -	L Y	
10423	X	MIC	F	2	U	12120	-	L,Y	
10424	X	6.3	M	2	U	12050	-	Y	
10425	X	6.3	F	2	U	12060	12580	Y	
10426	X	MIC	F	2	U	12120	-	L,Y	
10427	X	2.3	M	10	U	12160*	-	L	w/ Flange
10428	O	HEAD-LAMP	F	3	U	24140	24200	L,Y	
10429	X	PULSE LOCK	M	24	U	-	-	-	PCB
10430	X	TLC	M	8	U	12220	-	L	
10431	X	TLC	F	8	U	12230	-	L	
10432	O	2.3	F	12	U	12170	-	L	
10433	X	2.3	M	1	U	12160*	-	L	w/o Clamp
10434	X	2.3	M	1	U	12160*	-	L	w/ Clamp
10435	X	2.3	F	1	U	12170	-	L	
10436	X	2.3	M	12	U	-	-	-	PCB
10437	O	2.3	M	2	U	12160*	-	L	w/ Clamp
10438	X	2.3	M	1	S	12260*	-	L	
10439	X	2.3	F	1	S	12270*	12600	L	
10440	X	2.3	M	12	U	-	-	-	PCB
10441	X	2.3	M	18	U	-	-	-	PCB
10442	X	1.8 6.3	M	12 3	U	12180 12050	- -	L Y	
10443	X	1.8 6.3	F	12 3	U	12190* 12060	- 12580	L Y	
10444	X	TLC	M	3	S	12280	-	R	w/o Clamp
10445	X	TODC	M	13	U	-	-	-	PCB
10446	X	6.3 7.7	M	4 2	U	12050 12030	- -	Y Y	



## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10447	O	6.3 7.7	F	4 2	U	12060 12040	12580 -	Y Y	
10448	X	6.3 II	M	4	U	-	-	-	
10449	X	6.3 II	F	8	U	24170	-	Y	
10450	X	6.3 II	F	11	U	24170	-	Y	
10451	X	6.3	M	7	U	12050	-	Y	
10452	X	6.3	F	7	U	12060	12580	Y	
10453	X	2.3 6.3	M	12 4	U	12160* 12050	- -	L Y	
10454	X	2.3 6.3	F	12 4	U	12170 12060	- 12580	L Y	
10455	X	TLC	M	22	U	12220	-	L	
10456	X	TLC	F	22	U	12230	-	L	
10457	X	2.3 6.3	M	19 3	U	12160* 12050	- -	L Y	
10458	X	2.3 6.3	F	19 3	U	12170 12060	- 12580	L Y	
10459	X	TLC	M	7	U	-	-	-	PCB
10460	X	TLC	F	7	U	12230	-	L	
10461	X	TODC	M	15	U	12080	-	L,Y	
10462	X	2.3 6.3	M	5 3	U	12160* 12050	- -	L Y	
10463	O	2.3 6.3	F	5 3	U	12170 12060	- 12580	L Y	
10464	X	TODC	F	3	U	12090	-	L,Y	
10465	X	2.3	F	2	U	12170	-	L	
10466	X	TNS	M	4	U	12240	-	L	
10467	O	TNS	F	4	U	12250	-	L	
10468	X	TNS	M	10	U	12240	-	L	
10469	X	TNS	F	10	U	12250	-	L	
10470	O	TNS	M	14	U	12240	-	L	
10471	O	TNS	F	14	U	12250	-	L	
10472	X	2.3 TNS	M	12 9	U	12160* 12240	- -	L L	
10473	X	2.3 TNS	F	12 9	U	12170 12250	- -	L L	
10474	O	2.3	F	2	S	12270*	12600	L	
10475	O	2.3	M	4	S	12260*	-	L	
10476	O	2.3	F	4	S	12270*	12600	L	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10477	X	2.3	M	6	S	12260*	-	L	
10478	X	2.3	F	6	S	12270*	12600	L	
10479	X	2.3	M	12	U	12160*	-	L	
		6.3		1		12050	-	Y	
10480	X	2.3	F	12	U	12170	-	L	
		6.3		1		12060	12580	Y	
10481	O	6.3	F	2	U	12060	12580	Y	
10482	X	2.3	F	2	U	12170	-	L	
10483	X	2.3	F	3	U	12170	-	L	
10484	X	2.3	F	4	U	12170	-	L	
10485	X	2.3	M	10	U	12160*	-	L	
		TODC		6		12080	-	L,Y	
10486	X	2.3	F	10	U	12170	-	L	
		TODC		6		12090	-	L,Y	
10487	O	FTC	F	5	U	12510	-	L,Y	
10488	O	FTC	F	5	U	12510	-	L,Y	
10489	O	FTC	F	3	U	12510	-	L,Y	
10490	O	FTC	F	3	U	12510	-	L,Y	
10491	X	MIC	F	2	U	12120	-	L,Y	
10492	X	2.3	M	3	S	12260*	-	L	w/o Clamp
10493	X	2.3	M	3	S	12260*	-	L	w/ Clamp
10494	X	2.3	F	3	S	12270*	12600	L	
10495	O	2.3	M	2	S	12260*	-	L	
10496	O	2.3	F	2	S	12270*	12600	L	
10497	X	2.3	M	2	S	12260*	-	L	
10498	O	2.3	F	2	S	12270*	12600	L	
10499	X	6.3	M	1	U	12050	-	Y	w/ Clamp
10500	X	2.3	M	3	S	12260*	-	L	
10501	X	2.3	F	3	S	12270*	12600	L	
10502	X	2.3	M	4	U	12160*	-	L	
10503	X	2.3	M	4	U	12160*	-	L	
10504	O	2.3	F	4	U	12170	-	L	
10505	X	2.3	M	6	U	12160*	-	L	w/ Clamp
10506	X	2.3	M	14	U	-	-	-	PCB
10507	X	2.3	F	14	U	12170	-	L	
10508	X	2.3	M	20	U	-	-	-	PCB
10509	X	TODC	F	5	U	12090	-	L,Y	
10510	X	TNS	M	4	S	-	-	-	w/o Clamp
10511	X	TNS	F	2	U	12250	-	L	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10512	X	TNS	F	2	U	12250	-	L	
10513	O	2.3	M	12	U	12160*	-	L	
10514	X	2.3	F	2	U	12170	-	L	
		6.3		2		12060	12580	Y	
10515	X	2.3	F	4	U	12170	-	L	
10516	X	2.3	M	10	U	-	-	-	PCB
10517	X	2.3	F	4	U	12170	-	L	
		6.3		2		12060	12580	Y	
		7.7		2		12040	-	Y	
10518	X	2.3	M	4	U	12160*	-	L	
		6.3		1		12050	-	Y	
10519	X	2.3	M	4	U	12160*	-	L	
		6.3		1		12050	-	Y	
10520	X	2.3	F	4	U	12170	-	L	
		6.3		1		12060	12580	Y	
10521	X	2.3	M	15	U	12160*	-	L	
		7.7		1		12030	-	Y	
10522	X	2.3	F	15	U	12170	-	L	
		7.7		1		12040	-	Y	
10523	X	TNS	F	8	U	12250	-	L	
10524	X	TNS	F	12	U	12250	-	L	
10525	X	TNS	F	16	U	12250	-	L	
10526	O	TNS	F	22	U	12250	-	L	
10527	X	TLC	M	10	U	-	-	-	PCB
10528	O	TLC	F	10	U	12230	-	L	
10529	X	TLC	M	12	U	-	-	-	PCB
10530	X	2.3	F	17	U	12170	-	L	
		6.3		1		12060	12580	Y	
10531	X	2.3	M	11	U	12160*	-	L	
10532	O	2.3	F	2	S	12270*	12600	L	
10533	X	2.3	M	2	S	12260*	-	L	
10534	X	2.3	F	2	S	12270*	12600	L	
10535	X	2.3	M	3	U	-	-	-	PCB
10536	X	2.3	F	8	U	12170	-	L	
		6.3		1		12060	12580	Y	
10537	X	2.3	F	10	U	12170	-	L	
		6.3		1		12060	12580	Y	
10538	X	2.3	F	14	U	12170	-	L	
10539	X	2.3	F	16	U	12170	-	L	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10542	X	2.3	M	16	U	12160*	-	L	
10543	X	2.3	F	16	U	12170	-	L	
10544	X	2.3	M	3	U	12160*	-	L	
10545	X	2.3	M	12	U	12160*	-	L	
		6.3		2		12050	-	Y	
10546	X	TLC	M	8	U	12220	-	L	
10547	X	2.3	M	12	S	12260*	-	L	
		6.3		2		-	-	-	
		7.7		2		-	-	-	
10548	X	2.3	F	12	S	12270*	12600	L	
10549	X	6.3	F	2	S	-	-	-	
		7.7		2		-	-	-	
10550	X	2.3	F	3	S	12270*	12600	L	
		6.3		2		-	-	-	
10551	X	6.3	F	4	S	-	-	-	
10552	O	TNS	M	22	U	12240	-	L	
10553	X	TLC	M	3	S	12280	-	R	w/ Clamp
10554	O	TLC	F	3	S	12290	-	R	
10555	X	2.3	M	2	S	12260*	-	L	
10556	X	2.3	F	2	S	12270*	12600	L	
10557	X	TLC	M	5	S	12280	-	R	w/ Clamp
10558	X	TLC	F	5	S	12290	-	R	
10559	X	7.7	F	2	U	12040	-	Y	
10560	X	2.3	M	16	U	12160*	-	L	
10561	X	2.3	F	16	U	12170	-	L	
10562	X	2.3	M	12	U	12160*	-	L	
		6.3		2		12050	-	Y	
		7.7		1		12030	-	Y	
10563	X	2.3	F	12	U	12170	-	L	
		6.3		2		12060	12580	Y	
		7.7		1		12040	-	Y	
10564	X	1.8	M	12	U	12180	-	L	
10565	X	1.8	F	12	U	12190*	-	L	
10566	X	6.3	M	2	S	-	-	-	
10567	X	6.3	F	2	S	12540	-	Y	
10568	X	TODC	M	12	S	-	-	-	
10569	X	TODC	F	12	S	-	-	-	
10570	X	TLC	M	5	S	12280	-	R	w/o Clamp
10571	X	2.3	M	2	S	12260*	-	L	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10572	O	2.3	F	2	S	12270*	12600	L	
10573	O	2.3	M	3	U	12160*	-	L	w/ Clamp
10574	X	HEAD-LAMP	F	3	S	24150	24190	L,Y	
10575	O	2.3	M	2	S	12260*	-	L	
10576	X	2.3	F	2	S	12270*	12600	L	
10577	O	TLC	M	3	S	12280	-	R	w/ Clamp
10578	X	2.3	F	2	S	12270*	12600	L	
10579	X	HEAD-LAMP	F	3	S	24150	24190	L,Y	
10580	O	2.3	M	2	S	12260*	-	L	
10581	X	2.3	F	2	S	12270*	12600	L	
10582	X	2.3	M	2	S	12260*	-	L	
10583	X	2.3	F	2	S	12270*	12600	L	
10584	X	TNS	M	38	U	-	-	-	PCB
10585	X	TNS	F	24	U	12250	-	L	
10586	X	TNS	M	26	U	-	-	-	PCB
10587	O	TNS	F	26	U	12250	-	L	
10588	X	TNS	M	20	U	-	-	-	PCB
10589	X	TNS	F	20	U	12250	-	L	
10590	O	2.3	M	4	S	12260*	-	L	
10591	X	2.3	F	4	S	12270*	12600	L	
10592	O	2.3	M	2	S	12260*	-	L	
10593	X	2.3	F	2	S	12270*	12600	L	
10594	X	2.3	M	2	S	12260*	-	L	
10595	X	2.3	F	2	S	12270*	12600	L	
10596	X	2.3	M	6	S	12260*	-	L	
10597	X	2.3	F	6	S	12270*	12600	L	
10598	O	2.3	F	2	S	12270*	12600	L	
10599	O	TNS	M	26	U	12240	-	L	
10600	X	2.3	M	4	U	12160*	-	L	
10601	O	2.3	F	4	U	12170	-	L	
10602	X	2.3	M	6	U	12160*	-	L	
10603	X	2.3	M	6	U	12160*	-	L	
10604	X	2.3	F	6	U	12170	-	L	
10605	X	2.3	F	6	U	12170	-	L	
10606	X	1.8	M	34	U	12180	-	L	
10607	X	1.8	F	20	U	12190*	-	L	
10608	X	1.8	F	14	U	12190*	-	L	
10609	O	2.3	F	2	S	12270*	12600	L	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10610	X	2.3 TNS	F	1 4	U	12170 12250	- -	L L	
10611	X	2.3 TNS	F	8 8	U	12170 12250	- -	L L	
10612	X	2.3 TNS	F	10 10	U	12170 12250	- -	L L	
10613	X	TNS	F	16	U	12250	-	L	
10614	X	TNS	F	16	U	12250	-	L	
10615	X	TODC	M	7	U	-	-	-	PCB
10616	X	6.3	F	4	S	12540	-	Y	
10617	X	2.3	F	2	S	12270*	12600	L	
10618	X	6.3 7.7	F	2 1	U	12060 12040	12580 -	Y Y	
10619	O	6.3	F	1	U	12060	12580	Y	
10620	X	TLC	M	2	U	12220	-	L	
10621	X	TLC	F	2	U	12230	-	L	
10622	X	2.3	F	2	S	12270*	12600	L	
10623	X	2.3	F	2	S	12270*	12600	L	
10624	X	2.3	F	5	S	12270*	12600	L	
10625	X	2.3	M	2	S	12260*	-	L	w/ Clamp
10626	X	2.3	F	2	S	12270*	12600	L	
10627	X	TLC	M	7	S	12280	-	R	
10628	X	TLC	F	7	S	12290	-	R	
10629	X	2.3	F	3	S	12270*	12600	L	
10630	X	2.3	M	18	U	-	-	-	PCB
10631	X	2.3	F	5	U	12170	-	L	
10632	X	2.3	F	12	U	12170	-	L	
10633	X	TLC	F	14	U	12230	-	L	
10634	X	TLC	F	14	U	12230	-	L	
10635	X	TLC	F	16	U	12230	-	L	
10636	X	TLC	F	16	U	12230	-	L	
10637	X	2.3	F	2	U	12170	-	L	
10638	X	2.3	F	3	U	12170	-	L	
10639	X	2.3	M	20	U	12160*	-	L	
10640	X	2.3	F	20	U	12170	-	L	
10641	X	2.3	M	6	U	12160*	-	L	w/ Flange
10642	X	2.3	M	5	S	-	-	-	PCB
10643	X	2.3	F	6	S	12270*	12600	L	
10644	X	2.3	F	5	U	12170	-	L	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10645	O	MFPC	F	4	U	12150	-	L	
10646	X	6.3	M	4	S	-	-	-	
10647	X	6.3	M	5	S	-	-	-	w/ Clamp
10648	O	2.3	M	4	S	12260*	-	L	
10649	X	2.3	F	4	S	12270*	12600	L	
10650	O	2.3	M	6	S	12260*	-	L	w/ Clamp
10651	X	2.3	F	6	S	12270*	12600	L	
10652	X	7.7	F	1	U	12040	-	Y	
10653	X	1.8	M	13	S	-	-	-	
10654	X	1.8	F	13	S	12620	-	L	
10655	X	1.8	M	18	U	-	-	-	PCB
10656	X	1.8	F	18	U	12190*	-	L	
10657	X	1.8	M	30	U	-	-	-	PCB
10658	O	1.8	F	12	U	12190*	-	L	
10659	X	FTC	F	5	U	12510	-	L,Y	
10660	X	2.3	F	3	U	12170	-	L	
10661	X	TNS	M	14	U	-	-	-	PCB
10662	X	TNS	M	4	S	-	-	-	
10663	X	TNS	F	4	S	-	-	-	Outer
10664	X	TNS	F	4	S	-	-	-	Inner
10665	X	2.3	M	2	S	12260*	-	L	
10666	X	2.3	M	10	U	-	-	-	PCB
10667	X	2.3	M	10	U	-	-	-	PCB
10668	X	2.3	M	10	U	-	-	-	PCB
10669	O	2.3	F	10	U	12170	-	L	
10670	X	2.3	M	6	U	-	-	-	PCB
10671	X	2.3	M	6	U	-	-	-	PCB
10672	O	2.3	F	6	U	12170	-	L	
10673	X	6.3	F	4	U	12060	12580	Y	
		7.7		2		12040	-	Y	
10674	X	2.3	M	18	U	12160*	-	L	
		6.3		1		12050	-	Y	
10675	X	2.3	F	18	U	12170	-	L	
		6.3		1		12060	12580	Y	
10676	X	TLC	M	7	S	12280	-	R	
10677	X	TLC	M	9	S	12280	-	R	
10678	X	TLC	F	9	S	12290	-	R	
10679	O	2.3	F	2	U	12170	-	L	
10680	X	TLC	M	10	U	-	-	-	PCB

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10681	X	TNS	M	20	U	-	-	-	PCB
10682	X	TNS	M	3	S	-	-	-	
10683	X	TNS	F	3	S	-	-	-	
10684	X	TNS	F	3	S	-	-	-	
10685	X	2.3	F	2	S	12270*	12600	L	
		6.3		2		12540	-	Y	
10686	O	2.3	F	7	S	12270*	12600	L	
		6.3		2		12540	-	Y	
10687	X	2.3	M	2	U	12160*	-	L	
10688	X	5.2	F	1	U	-	-	-	
10689	X	2.3	M	3	S	12260*	-	L	
10690	X	2.3	F	3	S	12270*	12600	L	
10691	X	TNS	M	4	U	-	-	-	PCB
10692	X	TNS	F	4	U	12250	-	L	
10693	X	2.3	M	10	U	12160*	-	L	
10694	X	2.3	M	6	U	12160*	-	L	
10695	X	2.3	F	3	S	12270*	12600	L	
10696	O	1.8	F	20	U	12190*	-	L	
10697	O	1.8	F	14	U	12190*	-	L	
10698	X	TLC	M	3	S	12280	-	R	
10699	X	TLC	M	10	U	-	-	-	PCB
10700	X	6.3	M	2	U	12050	-	Y	
10701	X	6.3	F	4	S	12540	-	Y	
10702	O	2.3	F	2	S	12270*	12600	L	
10703	X	6.3	F	1	U	12060	12580	Y	
10704	X	6.3	F	3	U	12060	12580	Y	
10705	X	6.3	F	1	S	-	-	-	
10706	O	2.3	F	2	S	12270*	12600	L	
10707	X	2.3	M	2	S	12260*	-	L	
10708	X	6.3	F	3	S	-	-	-	
10709	X	2.3	M	2	S	12260*	-	L	
		TLC		3		12280	-	R	
10710	X	2.3	F	2	S	12270*	12600	L	
		TLC		3		12290	-	R	
10711	O	1.8	F	4	S	12620	-	L	
10712	X	2.3	F	5	S	12270*	12600	L	
10713	X	6.3	F	3	U	12060	12580	Y	
		7.7		2		12040	-	Y	



## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10714	X	2.3 6.3	F	9 3	U	12170 12060	- 12580	L Y	
10715	X	2.3	M	14	U	12160*	-	L	
10716	X	2.3	F	4	U	12170	-	L	
10717	X	2.3	F	4	U	12170	-	L	
10718	X	6.3	F	5	U	12060	12580	Y	
10719	O	TLC	M	10	U	12220	-	L	
10720	O	2.3	F	2	S	12270*	12600	L	
10721	X	2.3	F	10	U	12170	-	L	
10722	X	1.8	M	34	U	12180	-	L	
10723	X	2.3	F	11	U	12170	-	L	
10724	X	2.3	F	12	U	12170	-	L	
10725	X	2.3	F	12	U	12170	-	L	
10726	X	PULSE LOCK	M	30	U	-	-	-	PCB
10727	X	2.3 6.3	F	9 2	U	12170 12060	- 12580	L Y	
10728	X	2.3 6.3	M	5 2	U	- -	- -	- -	PCB
10729	X	2.3 6.3	F	5 2	U	12170 12060	- 12580	L Y	
10730	X	2.3	M	17	U	12160*	-	L	
10731	X	2.3	F	17	U	12170	-	L	
10732	X	TNS	M	14	U	-	-	-	PCB
10733	X	TNS	M	20	U	-	-	-	PCB
10734	X	1.8	F	2	S	12620	-	L	
10735	X	1.8	F	2	S	12620	-	L	
10736	X	1.8	F	2	S	12620	-	L	
10737	O	1.8	F	2	S	12620	-	L	
10738	X	1.8 1.0	M	16 48	U	- -	- -	- -	PCB
10739	X	1.8 1.0	F	10 16	U	12190* 12310*	- -	L L	
10740	X	1.0	F	16	U	12310*	-	L	
10741	X	1.8 1.0	F	6 16	U	12190* 12310*	- -	L L	
10742	X	1.8	M	42	U	-	-	-	PCB
10743	O	1.8	F	12	U	12190*	-	L	
10744	X	2.3	M	16	U	-	-	-	PCB

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10745	X	2.3	M	6	U	-	-	-	PCB
10747	X	8.0	F	3	U	12400	-	Y	
10748	X	2.3	F	2	S	12270*	12600	L	
10749	O	4.8	M	2	S	12470	-	Y	
		2.3 II		2		12430*	-	L,Y	
10750	X	TNS	M	26	U	12240	-	L	
10751	X	2.3	M	4	S	12260*	-	L	w/ Clamp
10752	X	1.8	M	30	U	-	-	-	PCB
10753	X	2.3	M	16	U	-	-	-	PCB
10758	X	6.3	M	4	U	12050	-	Y	w/ Clamp
10759	X	6.3	F	2	U	12060	12580	Y	
		7.7		2		12040	-	Y	
10760	X	5.2	F	1	U	-	-	-	
		6.3		1		12060	12580	Y	
10761	X	1.8	M	16	U	-	-	-	PCB
		1.0		48		-	-	-	
10762	X	2.3	M	5	U	12160*	-	L	
10763	O	1.8	F	10	U	12190*	-	L	
		1.0		16		12310*	-	L	
10764	O	1.0	F	16	U	12310*	-	L	
10765	O	1.8	F	6	U	12190*	-	L	
		1.0		16		12310*	-	L	
10766	X	6.3	F	4	U	12060	12580	Y	
		7.7		2		12040	-	Y	
10767	X	2.3 II	M	14	U	-	-	-	PCB
10768	X	2.3	M	4	S	12260*	-	L	w/o Clamp
10769	X	2.3	M	8	U	-	-	-	PCB
10770	X	PULSE LOCK	M	24	U	-	-	-	PCB
10771	X	2.3	M	5	U	-	-	-	PCB
		6.3		2		-	-	-	
10772	X	2.3	F	5	U	12170	-	L	
		6.3		2		12060	12580	Y	
10773	X	1.8	M	16	U	-	-	-	PCB
		1.0		48		-	-	-	
10774	X	2.3	M	3	S	12260*	-	L	w/ Clamp
10775	X	TODC	M	9	S	-	-	-	
10776	X	TODC	F	9	S	-	-	-	
10777	X	TLC	M	3	S	12280	-	R	w/ Clamp

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10778	X	2.3 2.3 6.3	F	2 15 1	S  U	12270* 12170 12060	12600 - 12580	L L Y	
10779	X	TNS	M	24	U	12240	-	L	
10780	X	1.8 1.0	M	16 48	U	- -	- -	- -	PCB
10781	X	MIC	F	11	U	12120	-	L,Y	
10782	X	7.7	F	1	U	12040	-	Y	
10783	X	7.7	F	2	U	12040	-	Y	
10784	X	6.3 7.7	F	2 1	U	12060 12040	12580 -	Y Y	
10785	X	2.3	F	6	U	12170	-	L	
10786	O	6.3	F	1	U	12070	-	Y	
10787	X	2.3	M	3	S	12260*	-	L	w/ Clamp
10788	X	2.3	M	2	S	12260*	-	L	w/ Clamp
10789	O	2.3 II	F	5	U	12340*	-	L,Y	
10790	X	2.3 II	M	5	U	-	-	-	PCB
10791	X	2.3 6.3	M	2 2	U	12160* 12050	- -	L Y	
10792	O	6.3	F	1	U	12060	12580	Y	
10793	X	2.3 II	M	6	U	-	-	-	PCB
10794	O	2.3 II	M	4	U	12330*	-	L,Y	
10795	O	2.3 II	F	4	U	12340*	-	L,Y	
10796	O	2.3 II	M	6	U	12330*	-	L,Y	
10797	O	2.3 II	F	6	U	12340*	-	L,Y	
10798	O	2.3 II	M	8	U	12330*	-	L,Y	
10799	O	2.3 II	F	8	U	12340*	-	L,Y	
10800	O	2.3 II	M	10	U	12330*	-	L,Y	
10801	O	2.3 II	F	10	U	12340*	-	L,Y	
10802	O	2.3 II	M	12	U	12330*	-	L,Y	
10803	O	2.3 II	F	12	U	12340*	-	L,Y	
10804	O	2.3 II	M	13	U	12330*	-	L,Y	
10805	O	2.3 II	F	13	U	12340*	-	L,Y	
10806	O	2.3 II	M	14	U	12330*	-	L,Y	
10807	O	2.3 II	F	14	U	12340*	-	L,Y	
10808	O	2.3 II	M	16	U	12330*	-	L,Y	
10809	O	2.3 II	F	16	U	12340*	-	L,Y	
10810	O	2.3 II	M	20	U	12330*	-	L,Y	
10811	O	2.3 II	F	20	U	12340*	-	L,Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10812	O	4.8 2.3 II	M	2 12	U	12370 12330*	- -	Y L,Y	
10813	O	4.8 2.3 II	F	2 12	U	12380 12340*	- -	Y L,Y	
10814	O	4.8 2.3 II	M	3 12	U	12370 12330*	- -	Y L,Y	
10815	O	4.8 2.3 II	F	3 12	U	12380 12340*	- -	Y L,Y	
10816	O	4.8 2.3 II	M	2 18	U	12370 12330*	- -	Y L,Y	
10817	O	4.8 2.3 II	F	2 18	U	12380 12340*	- -	Y L,Y	
10818	O	2.3 II	M	18	U	12330*	-	L,Y	
10819	O	2.3 II	F	18	U	12340*	-	L,Y	
10820	O	2.3 II	M	20	U	12330*	-	L,Y	
10821	O	2.3 II	F	20	U	12340*	-	L,Y	
10822	O	2.3 II	F	10	U	12340*	-	L,Y	
10823	O	2.3 II	F	2	U	12340*	-	L,Y	
10824	O	2.3 II	M	2	U	12330*	-	L,Y	
10825	O	2.3 II	F	2	U	12340*	-	L,Y	
10826	X	TLC	M	9	S	12280	-	R	
10827	O	2.3 II	M	15	U	12330*	-	L,Y	
10828	O	2.3 II	F	15	U	12340*	-	L,Y	
10829	O	2.3 II	M	11	U	12330*	-	L,Y	
10830	O	2.3 II	F	11	U	12340*	-	L,Y	
10831	X	2.3	F	4	S	12270*	12600	L	
10833	O	2.3 II	M	2	U	12330*	-	L,Y	w/ Clamp
10834	O	2.3 II	F	3	S	12440*	12590	L,Y	
10835	O	2.3 II	F	2	U	12340*	-	L,Y	
10836	O	8.0	M	1	S	12490	-	Y	
10837	O	8.0	F	1	S	12500	-	Y	
10838	O	8.0	M	2	S	12490	-	Y	
10839	O	8.0	F	2	S	12500	-	Y	
10840	O	4.8	M	3	S	12470	-	Y	
10841	O	4.8	F	3	S	12480	-	Y	
10842	O	2.3 II	M	2	S	12430*	-	L,Y	
10843	O	2.3 II	F	2	S	12440*	12590	L,Y	
10844	O	4.8 2.3 II	F	2 2	S	12480 12440*	- 12590	Y L,Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10845	O	2.3 II	F	3	S	12440*	12590	L,Y	
10846	X	2.3	F	2	S	12270*	12600	L	
10847	X	2.3	F	2	S	12270*	12600	L	
10848	O	2.3 II	F	16	U	12340*	-	L,Y	
10849	X	2.3 II	M	2	U	12330*	-	L,Y	
10850	O	2.3 II	F	2	U	12340*	-	L,Y	
10851	X	2.3 II	M	14	U	-	-	-	PCB
10852	O	2.3 II	F	14	U	12340*	-	L,Y	
10853	X	2.3 II	F	2	S	12440*	12590	L,Y	
10854	O	2.3 II	F	6	S	12440*	12590	L,Y	
10855	O	2.3 II	F	2	U	12340*	-	L,Y	
10856	O	2.3 II	M	18	U	12330*	-	L,Y	
		8.0		1		12390	-	Y	
10857	O	2.3 II	F	18	U	12340*	-	L,Y	
		8.0		1		12400	-	Y	
10858	O	2.3 II	M	4	U	12330*	-	L,Y	
10859	O	2.3 II	M	2	U	12330*	-	L,Y	
10860	O	2.3 II	F	2	U	12340*	-	L,Y	
10861	O	4.8	M	10	U	12370	-	Y	
10862	O	4.8	F	10	U	12380	-	Y	
10863	X	2.3 II	M	18	U	-	-	-	PCB
10864	O	2.3 II	M	12	U	-	-	-	PCB
10865	X	2.3 II	M	10	U	-	-	-	PCB
10866	O	8.0	M	4	U	12390	-	Y	
10867	O	8.0	F	4	U	12400	-	Y	
10868	O	2.3 II	M	4	S	12430*	-	L,Y	
10869	O	2.3 II	F	4	S	12440*	12590	L,Y	
10870	O	2.3 II	M	1	U	12330*	-	L,Y	w/o Clamp
10871	O	2.3 II	F	1	U	12340*	-	L,Y	
10872	O	4.8	M	7	U	12370	-	Y	
		2.3 II		4		12330*	-	L,Y	
10873	O	4.8	F	7	U	12380	-	Y	
		2.3 II		4		12340*	-	L,Y	
10874	O	2.3 II	M	16	U	-	-	-	PCB
10875	O	2.3 II	F	22	U	12340*	-	L,Y	
10876	O	4.8	M	3	U	12370	-	Y	
		2.3 II		5		12330*	-	L,Y	
10877	O	4.8	F	3	U	12380	-	Y	
		2.3 II		5		12340*	-	L,Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10878	O	4.8 2.3 II	M	2 10	U	12370 12330*	- -	Y L,Y	
10879	O	4.8 2.3 II	F	2 10	U	12380 12340*	- -	Y L,Y	
10880	O	4.8 2.3 II	M	4 20	U	12370 12330*	- -	Y L,Y	
10881	O	4.8 2.3 II	F	4 20	U	12380 12340*	- -	Y L,Y	
10882	O	4.8 2.3 II	M	1 18	U	12370 12330*	- -	Y L,Y	
10883	O	4.8 2.3 II	F	1 18	U	12380 12340*	- -	Y L,Y	
10884	O	4.8 2.3 II	M	4 12	U	12370 12330*	- -	Y L,Y	
10885	O	4.8 2.3 II	F	4 12	U	12380 12340*	- -	Y L,Y	
10886	O	2.3 II	M	2	S	12430*	-	L,Y	
10887	O	2.3 II	F	2	S	12440*	12590	L,Y	
10888	O	4.8 8.0	F	2 3	U	12380 12400	- -	Y Y	
10889	O	4.8 8.0	F	4 2	U	12380 12400	- -	Y Y	
10890	O	2.3 II	M	8	S	12430*	-	L,Y	
10891	O	2.3 II	F	8	S	12440*	12590	L,Y	
10892	O	2.3 II	M	1	S	12430*	-	L,Y	
10893	O	2.3 II	F	1	S	12440*	12590	L,Y	
10894	O	4.8 2.3 II	M	2 6	S	12470 12430*	- -	Y L,Y	
10895	O	4.8 2.3 II	F	2 6	S	12480 12440*	- 12590	Y L,Y	
10896	O	2.3 II	M	8	S	12430*	-	L,Y	
10897	O	2.3 II	F	8	S	12440*	12590	L,Y	
10898	O	2.3 II	M	2	S	12430*	-	L,Y	
10899	O	2.3 II	F	2	S	12440*	12590	L,Y	
10900	O	2.3 II	M	2	S	12430*	-	L,Y	
10901	O	2.3 II	F	2	S	12440*	12590	L,Y	
10902	O	2.3 II	F	3	S	12440*	12590	L,Y	
10903	O	8.0	F	2	U	12400	-	Y	
10904	O	2.3 II	F	4	U	12340*	-	L,Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10905	O	2.3 II	M	2	U	12330*	-	L,Y	
10906	O	2.3 II	F	2	U	12340*	-	L,Y	
10907	O	2.3 II	M	3	U	12330*	-	L,Y	
10908	O	2.3 II	F	3	U	12340*	-	L,Y	
10909	O	2.3 II	M	4	U	12330*	-	L,Y	
		8.0		2		12390	-	Y	
10910	O	2.3 II	F	4	U	12340*	-	L,Y	
		8.0		2		12400	-	Y	
10911	O	4.8	F	1	U	12380	-	Y	
10912	O	4.8	F	1	U	12380	-	Y	
10913	X	6.3	F	1	U	12060	12580	Y	
10914	X	6.3	F	1	U	12060	12580	Y	
10915	O	4.8	M	2	U	12370	-	Y	
10916	O	4.8	F	2	U	12380	-	Y	
10917	X	1.8	M	8	U	-	-	-	PCB
		1.0		18		-	-	-	
10918	X	1.8	F	8	U	12190*	-	L	
		1.0		18		12310*	-	L	
10919	O	2.3 II	F	3	S	12440*	12590	L,Y	
10920	O	1.3	M	19	U	12410	-	L	
		2.3 II		4		12330*	-	L,Y	
10921	O	1.3	F	19	U	12420	-	L	
		2.3 II		4		12340*	-	L,Y	
10923	O	2.3 II	F	2	S	12440*	12590	L,Y	
10924	X	1.8	M	16	U	-	-	-	PCB
		1.0		10		-	-	-	
10925	O	1.8	F	10	U	12190*	-	L	
		1.0		16		12310*	-	L	
10926	O	4.8	F	8	U	12380	-	Y	
10927	O	4.8	M	2	S	12470	-	Y	
10928	O	4.8	F	2	S	12480	-	Y	
10929	X	1.8	F	4	S	12620	-	L	
10930	O	2.3 II	M	7	S	12430*	-	L,Y	
10931	O	2.3 II	F	7	S	12440*	12590	L,Y	
10932	O	4.8	F	2	U	12380	-	Y	
		2.3 II		10		12340*	-	L,Y	
10933	O	2.3 II	F	6	U	12340*	-	L,Y	
10934	O	2.3 II	M	2	U	12330*	-	L,Y	
10935	O	2.3 II	F	2	U	12340*	-	L,Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10936	X	2.3 II	M	20	U	-	-	-	PCB
10937	X	2.3 II	M	18	U	-	-	-	PCB
10938	X	2.3 II	M	12	U	-	-	-	PCB
10939	O	4.8 2.3 II	F	2 4	S	12480 12440*	- 12590	Y L,Y	
10940	O	4.8 2.3 II	F	2 2	S	12480 12440*	- 12590	Y L,Y	
10941	O	2.3 II	M	4	S	12430*	-	L,Y	
10942	O	2.3 II	F	4	S	12440*	12590	L,Y	
10943	O	2.3 II	F	4	S	12440*	12590	L,Y	
10944	O	4.8	M	3	S	12470	-	Y	
10945	O	4.8 2.3 II	M	2 3	S	12470 12430*	- -	Y L,Y	
10946	O	4.8 2.3 II	F	2 3	S	12480 12440*	- 12590	Y L,Y	
10947	O	2.3 II	F	2	S	12440*	12590	L,Y	
10948	O	2.3 II	M	2	S	12430*	-	L,Y	
10949	O	2.3 II	F	2	S	12440*	12590	L,Y	
10950	X	2.3 II	F	88	U	12340*	-	L,Y	
10951	X	2.3 II	M	52	U	12330*	-	L,Y	
10952	X	4.8 8.0	F	12 8	U	12380 12400	- -	Y Y	
10953	X	4.8 8.0	F	18 4	U	12380 12400	- -	Y Y	
10954	X	4.8 8.0	M	18 6	U	12370 12390	- -	Y Y	
10955	X	4.8 8.0	F	18 6	U	12380 12400	- -	Y Y	
10956	O	8.0	F	3	U	12400	-	Y	
10957	O	2.3 II	F	6	U	12340*	-	L,Y	
10958	O	8.0	M	2	U	12390	-	Y	
10959	O	2.3 II	M	2	S	12430*	-	L,Y	
10960	X	MIR- ROR	F	2	U	-	-	-	
10961	X	2.3 II	M	10	U	-	-	-	PCB
10962	O	2.3 II	F	2	U	12340*	-	L,Y	
10963	O	4.8	M	8	U	12370	-	Y	
10964	O	2.3 II	F	6	U	12340*	-	L,Y	
10965	O	2.3 II	F	10	U	12340*	-	L,Y	



## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10966	O	2.3 II	F	11	U	12340*	-	L,Y	
10967	O	2.3 II	F	12	U	12340*	-	L,Y	
10968	O	2.3 II	F	12	U	12340*	-	L,Y	
10969	X	1.8 1.0	M	10 32	U	- -	- -	- -	PCB
10970	X	7.7	M	2	S	-	-	-	
10971	X	2.3 II	M	14	U	-	-	-	PCB
10972	X	1.8 1.0	M	22 32	U	- -	- -	- -	PCB
10973	O	1.8	F	12	U	12190*	-	L	
10974	O	2.3 II	F	2	S	12440*	12590	L,Y	
10975	O	4.8	M	6	U	12370	-	Y	
10976	O	4.8	F	6	U	12380	-	Y	
10977	O	2.3 II	M	22	U	12330*	-	L,Y	
10978	O	1.8 1.0	M	16 10	U	- -	- -	- -	PCB
10979	X	4.8	M	3	U	12370	-	Y	
10980	O	4.8	F	3	U	12380	-	Y	
10981	O	2.3 II	F	3	S	12440*	12590	L,Y	
10982	O	4.8	M	1	S	12470	-	Y	
10983	O	4.8	F	1	S	12480	-	Y	
10984	X	2.3	M	6	S	12260*	-	L	w/o Clamp
10985	O	4.8 2.3 II	M	1 4	U	12370 12330*	- -	Y L,Y	
10986	O	4.8 2.3 II	F	1 4	U	12380 12340*	- -	Y L,Y	
10987	O	2.3 II	M	6	S	12430*	-	L,Y	
10988	O	2.3 II	F	6	S	12440*	12590	L,Y	
10989	O	4.8	M	4	S	12470	-	Y	
10990	O	4.8	F	4	S	12480	-	Y	
10991	X	1.8 1.0	M	18 16	U	- -	- -	- -	PCB
10992	X	4.8 2.3 II	M	4 6	U	- -	- -	- -	PCB
10993	O	4.8 2.3 II	F	4 6	U	12380 12340*	- -	Y L,Y	
10994	O	8.0	M	1	U	12390	-	Y	
10995	O	8.0	F	1	U	12400	-	Y	
10996	O	2.3 II	F	6	U	12340*	-	L,Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
10997	O	2.3 II	F	10	U	12340*	-	L,Y	
10998	O	2.3 II	M	6	U	12330*	-	L,Y	
11001	O	2.3 II	F	6	U	12340*	-	L,Y	
11002	O	2.3 II	M	2	S	12430*	-	L,Y	
11003	O	2.3 II	F	2	S	12440*	12590	L,Y	
11004	O	2.3 II	M	2	S	12430*	-	L,Y	
11005	O	2.3 II	F	2	S	12440*	12590	L,Y	
11006	O	2.3 II	M	1	S	12430*	-	L,Y	
11007	O	2.3 II	F	1	S	12440*	12590	L,Y	
11008	O	2.3 II	M	2	S	12430*	-	L,Y	
11009	O	2.3 II	F	2	S	12440*	12590	L,Y	
11010	O	2.3 II	M	6	U	12330*	-	L,Y	
11011	O	2.3 II	F	6	U	12340*	-	L,Y	
11012	O	2.3 II	M	4	U	12330*	-	L,Y	
11013	O	2.3 II	F	4	U	12340*	-	L,Y	
11014	X	6.3	M	2	U	12050	-	Y	
11015	O	2.3 II	M	3	S	12430*	-	L,Y	
11016	O	2.3 II	F	3	S	12440*	12590	L,Y	
11017	X	1.8	M	18	U	-	-	-	PCB
11018	X	1.8	M	42	U	-	-	-	PCB
11019	O	2.3 II	F	2	S	12440*	12590	L,Y	
11020	O	2.3 II	F	3	S	12440*	12590	L,Y	
11021	O	4.8	M	2	S	12470	-	Y	
		2.3 II		3		12430*	-	L,Y	
11022	O	4.8	F	2	S	12480	-	Y	
		2.3 II		3		12440*	12590	L,Y	
11023	O	2.3 II	M	4	U	12330*	-	L,Y	
11024	O	2.3 II	F	5	S	12440*	12590	L,Y	
11025	O	2.3 II	F	2	S	12440*	12590	L,Y	
11026	O	2.3 II	M	1	U	12330*	-	L,Y	w/ Clamp
11027	O	2.3 II	M	4	S	12430*	-	L,Y	
11028	O	2.3 II	F	4	S	12440*	12590	L,Y	
11029	O	2.3 II	M	2	S	12430*	-	L,Y	
11030	O	2.3 II	F	2	S	12440*	12590	L,Y	
11031	O	8.0	M	2	S	12490	-	Y	
11032	O	8.0	F	2	S	12500	-	Y	
11033	O	2.3 II	M	6	S	12430*	-	L,Y	
11034	O	2.3 II	F	6	S	12440*	12590	L,Y	
11035	O	4.8	M	4	S	12470	-	Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11036	O	4.8	F	4	S	12480	-	Y	
11037	O	2.3 II	F	4	S	12440*	12590	L,Y	
11038	O	2.3 II	F	2	S	12440*	12590	L,Y	
11039	X	1.8 1.0	M	16 18	U	- -	- -	- -	PCB
11040	X	1.3 2.3 II	M	47 4	U	- -	- -	- -	PCB
11041	O	1.3	F	11	U	12420	-	L	
11042	O	1.3 2.3 II	F	11 4	U	12420 12340*	- -	L L,Y	
11043	O	1.3	F	25	U	12420	-	L	
11044	O	4.8 8.0	M	2 1	S	12470 12490	- -	Y Y	
11045	O	4.8 8.0	F	2 1	S	12480 12500	- -	Y Y	
11046	X	2.3 II	M	17	U	12330*	-	L,Y	
11049	O	2.3 II	F	5	S	12440*	12590	L,Y	
11050	O	2.3 II	M	2	S	12430*	-	L,Y	
11051	O	2.3 II	F	2	S	12440*	12590	L,Y	
11052	O	1.3	M	3	U	12410	-	L	
11053	O	1.3	F	3	U	12420	-	L	
11054	X	1.3 2.3 II	M	55 8	U	- -	- -	- -	PCB
11055	O	1.3	F	25	U	12420	-	L	
11056	O	1.3 2.3 II	F	11 4	U	12420 12340*	- -	L L,Y	
11057	X	1.3 2.3 II	M	21 4	U	- -	- -	- -	PCB
11058	O	1.3 2.3 II	F	21 4	U	12420 12340*	- -	L L,Y	
11059	X	1.8 1.0	M	18 16	U	- -	- -	- -	PCB
11060	O	2.3 II	M	2	U	12330*	-	L,Y	
11061	X	1.8	F	2	S	12620	-	L	
11062	O	1.8	F	2	S	12620	-	L	
11063	O	1.3	M	4	S	12630	-	L	Outer
11064	O	1.3	M	4	S	12630	-	L	Inner
11065	O	1.3	F	4	S	12650	-	L	Outer
11066	O	1.3	F	4	S	12650	-	L	Inner

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11067	X	2.3 II	M	6	U	-	-	-	PCB
11068	O	2.3 II	F	2	S	12440*	12590	L,Y	
11069	O	2.3 II	M	2	S	12430*	-	L,Y	
11070	O	2.3 II	F	2	S	12440*	12590	L,Y	
11071	O	2.3 II	F	3	U	12340*	-	L,Y	
11072	O	2.3 II	M	2	S	12430*	-	L,Y	
11073	O	2.3 II	M	2	S	12430*	-	L,Y	w/o Clamp
11074	O	2.3 II	M	2	S	12430*	-	L,Y	w/ Clamp
11075	O	2.3 II	F	2	S	12440*	12590	L,Y	
11076	X	TNS	M	4	S	-	-	-	w/ Clamp
11077	O	2.3 II	F	5	S	12440*	12590	L,Y	
11078	O	2.3 II	M	5	S	12430*	-	L,Y	
11079	O	2.3 II	F	3	U	12340*	-	L,Y	
11080	O	2.3 II	F	2	U	12340*	-	L,Y	
11081	X	1.8 1.0	M	10 32	U	- -	- -	- -	PCB
11082	X	1.0	F	16	U	12310*	-	L	
11083	O	1.3	F	11	U	12420	-	L	
11084	X	1.3 2.3 II	M	30 4	U	- -	- -	- -	PCB
11085	O	2.3 II	M	5	U	12330*	-	L,Y	
11086	O	2.3 II	M	12	S	12430*	-	L,Y	
11087	O	2.3 II	F	12	S	12440*	12590	L,Y	
11088	O	1.3	M	15	S	12630	-	L	
11089	O	1.3	F	15	S	12650	-	L	
11090	O	2.3 II	F	4	U	12340*	-	L,Y	
11091	O	4.8	F	6	U	12380	-	Y	
11092	O	4.8	F	8	U	12380	-	Y	
11093	O	4.8	M	2	U	12370	-	Y	
11094	O	4.8	F	2	U	12380	-	Y	
11095	O	HEAD-LAMP	F	2	S	24150	24190	L,Y	
11096	O	HEAD-LAMP	F	2	S	24150	24190	L,Y	
11097	O	2.3 II	M	1	U	12330*	-	L,Y	w/ Clamp
11098	O	2.3 II	F	2	U	12340*	-	L,Y	
11099	O	2.3 II	M	6	U	12330*	-	L,Y	
11100	O	2.3 II	M	4	U	12330*	-	L,Y	
11101	O	2.3 II	M	6	U	12330*	-	L,Y	
11102	O	2.3 II	M	10	U	12330*	-	L,Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11103	X	1.8 1.0	M	8 18	U	-	-	-	PCB
11104	X	2.3 II	M	20	U	-	-	-	PCB
11105	X	2.3 II	M	12	U	-	-	-	PCB
11106	X	1.3	M	4	U	-	-	-	PCB
11107	O	1.3	F	4	U	12420	-	L	
11108	X	HEAD-LAMP	F	3	S	24150	24190	L,Y	
11110	O	2.3 II	M	6	U	12330*	-	L,Y	
11111	O	-	-	-	-	-	-	-	
11113	O	SFPC	F	16	U	24180	-	L	
11114	O	SFPC	F	13	U	24180	-	L	
11115	O	SFPC	F	13	U	24180	-	L	
11116	O	SFPC	F	10	U	24180	-	L	
11117	X	2.3 II	M	20	U	-	-	-	PCB
11118	O	4.8 2.3 II	F	2 2	U	12380 12340*	-	Y L,Y	
11119	X	1.3	M	21	U	-	-	-	PCB
11120	X	1.3 2.3 II	M	19 4	U	-	-	-	PCB
11121	O	2.3 II	F	12	U	12340*	-	L,Y	
11122	O	2.3 II	M	4	S	12430*	-	L,Y	
11123	X	2.3 II	M	8	U	-	-	-	PCB
11124	X	1.8	M	30	U	-	-	-	PCB
11125	O	1.3	F	21	U	12420	-	L	
11126	O	4.8 2.3 II	M	2 2	U	12370 12330*	-	Y L,Y	
11127	O	2.3 II	M	18	U	-	-	-	PCB
11128	X	1.8 1.0	M	16 60	U	-	-	-	PCB
11129	O	1.0	F	12	U	12310*	-	L	
11130	O	4.8 2.3 II	F	2 6	U	12380 12340*	-	Y L,Y	
11131	O	2.3 II	M	3	S	12430*	-	L,Y	
11132	O	2.3 II	F	3	S	12440*	12590	L,Y	
11133	O	1.3	M	25	U	12410	-	L	
11134	O	2.3 II	M	8	U	-	-	-	PCB
11135	O	4.8	M	4	U	12370	-	Y	
11136	O	4.8	F	4	U	12380	-	Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11137	O	2.3 II	M	2	S	12430*	-	L,Y	
11138	O	4.8	M	2	S	12470	-	Y	
		8.0		2		12490	-	Y	
11139	O	4.8	F	2	S	12480	-	Y	
		8.0		2		12500	-	Y	
11140	O	2.3 II	F	2	S	12440*	12590	L,Y	
11141	O	2.3 II	M	2	S	12430*	-	L,Y	
11142	O	2.3 II	F	2	S	12440*	12590	L,Y	
11143	O	2.3 II	F	3	S	12440*	12590	L,Y	
11144	O	2.3 II	F	6	S	12440*	12590	L,Y	
11145	O	2.3 II	F	3	S	12440*	12590	L,Y	
11146	O	2.3 II	M	1	U	12330*	-	L,Y	
11147	O	2.3 II	F	1	U	12340*	-	L,Y	
11148	O	2.3 II	F	2	U	12340*	-	L,Y	
11149	O	2.3 II	F	2	S	12440*	12590	L,Y	
11150	O	2.3 II	F	4	S	12440*	12590	L,Y	
11151	O	2.3 II	F	12	S	12440*	12590	L,Y	
11152	O	2.3 II	F	4	S	12440*	12590	L,Y	
11153	O	2.3 II	F	2	S	-	12790*	L,Y	
11154	O	2.3 II	F	2	S	-	12790*	L,Y	
11155	O	2.3 II	M	2	S	12430*	-	L,Y	
11156	O	2.3 II	F	2	S	12440*	12590	L,Y	
11157	X	2.3 II	F	3	S	12440*	12590	L,Y	
11158	O	1.3	M	21	U	12410	-	L	
		2.3 II		4		12330*	-	L,Y	
11159	O	2.3 II	M	2	U	12330*	-	L,Y	
11160	O	4.8	M	1	S	12470	-	Y	
		2.3 II		2		12430*	-	L,Y	
11161	O	4.8	F	1	S	12480	-	Y	
		2.3 II		2		12440*	12590	L,Y	
11162	O	2.3 II	F	2	S	12440*	12590	L,Y	
11163	O	2.3 II	F	2	S	12440*	12590	L,Y	
11164	X	1.3	M	7	U	-	-	-	PCB
11165	O	1.3	F	7	U	12420	-	L	
11166	O	2.3 II	F	1	S	12440*	12590	L,Y	
11167	O	2.3 II	M	16	U	12330*	-	L,Y	
11168	O	2.3 II	M	2	S	12430*	-	L,Y	
11169	O	1.3	M	3	S	12630	-	L	
11170	O	1.3	F	3	S	12650	-	L	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11171	O	1.3	M	7	S	12630	-	L	
11172	O	1.3	F	7	S	12650	-	L	
11173	O	1.3	M	11	S	12630	-	L	
11174	O	1.3	F	11	S	12650	-	L	
11175	O	2.3 II	M	2	S	12430*	-	L,Y	
11176	O	2.3 II	F	2	S	12440*	12590	L,Y	
11177	O	2.3 II	M	4	S	12430*	-	L,Y	
11178	O	2.3 II	F	4	S	12440*	12590	L,Y	
11179	O	1.3	F	15	U	12420	-	L	
11180	X	1.3	M	15	U	-	-	-	PCB
11181	O	1.3	M	5	S	12630	-	L	
11182	O	1.3	F	5	S	12650	-	L	
11183	O	8.0	M	1	S	12490	-	Y	
11184	O	8.0	F	1	S	12500	-	Y	
11186	O	1.3	M	4	U	12410	-	L	
11187	O	1.3	F	4	U	12420	-	L	
11188	O	1.3	M	2	S	12630	-	L	
11189	O	1.3	F	2	S	12650	-	L	
11190	O	2.3 II	F	8	S	12440*	12590	L,Y	
11191	O	1.3	M	9	S	12630	-	L	
11192	O	1.3	F	9	S	12650	-	L	
11193	O	2.3 II	M	6	S	12430*	-	L,Y	
11194	O	2.3 II	F	6	S	12440*	12590	L,Y	
11195	O	2.3 II		22	S	12440*	12590	L,Y	
		2.3 II	F	22	U	12340*	-	L,Y	
		6.3 II		1	S	24160	-	L	
11196	O	2.3 II	M	6	S	12430*	-	L,Y	
11197	O	2.3 II	F	6	S	12440*	12590	L,Y	
11198	X	1.3	M	13	U	-	-	-	PCB
11199	X	1.3	F	13	U	12420	-	L	
11200	X	1.3	M	11	U	12410	-	L	
11201	X	1.3	M	15	U	12410	-	L	
11202	X	1.3	M	17	U	12410	-	L	
11203	X	1.3	F	17	U	12420	-	L	
11204	X	1.3		15		12410	-	L	
		2.3 II	M	4	U	12330*	-	L,Y	
11205	X	1.3		15		12420	-	L	
		2.3 II	F	4	U	12340*	-	L,Y	
11206	X	1.3	M	21	U	12410	-	L	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980- 11207	O	2.3 II	F	2	S	82998- 12440*	82998- 12590	L,Y	
11208	O	1.3 2.3 II	M	19 4	U	12410 12330*	- -	L L,Y	
11211	O	1.3	M	2	U	12410	-	L	
11212	O	1.3	F	2	U	12420	-	L	
11213	X	1.0	M	120	S	-	-	-	PCB
11214	O	1.0	F	80	S	-	-	-	
11215	O	1.0	F	40	S	-	-	-	
11216	O	-	-	-	-	-	-	-	
11217	X	1.0 II	M	100	U	-	-	-	PCB
11218	O	1.0 II	F	28	U	24020*	-	L	
11219	O	1.0 II	F	16	U	24020*	-	L	
11220	O	1.0 II	F	22	U	24020*	-	L	
11221	O	1.0 II	F	34	U	24020*	-	L	
11222	O	1.0 II 1.8 II 1.8 II	M	18 14 14	U	24010 24030 24090	- - -	L L,Y L,Y	
11223	O	1.0 II 1.8 II 1.8 II	M	12 6 6	U	24010 24030 24090	- - -	L L,Y L,Y	
11224	O	1.0 II 1.8 II 1.8 II	F	12 6 6	U	24020* 24040 24100*	- - -	L L,Y L,Y	
11225	O	1.0 II 1.8 II 1.8 II	F	6 8 8	U	24020* 24040 24100*	- - -	L L,Y L,Y	
11226	O	1.0 II 1.8 II 1.8 II	F	12 6 6	U	24020* 24040 24100*	- - -	L L,Y L,Y	
11227	O	2.3 II	F	2	U	12340*	-	L,Y	
11228	O	1.8 1.0	M	18 16	U	- -	- -	- -	PCB
11229	X	2.3 II	M	3	U	-	-	-	PCB
11230	X	2.3 II	M	5	U	-	-	-	PCB
11231	O	2.3 II	F	10	S	12440*	12590	L,Y	
11232	O	2.3 II	F	5	S	12440*	12590	L,Y	
11233	X	1.8 1.0	M	4 22	U	- -	- -	- -	PCB



## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11234	X	1.8 1.0	F	4 22	U	12190* 12310*	- -	L L	
11235	O	2.3 II	F	2	S	12440*	12590	L,Y	
11236	X	4.8	M	2	S	12470	-	Y	
11237	O	4.8	F	2	S	12480	-	Y	
11238	X	2.3 II	F	22	U	12340*	-	L,Y	
11239	O	4.8 2.3 II	M	3 8	S	12470 12430*	- -	Y L,Y	
11240	O	4.8 2.3 II	F	3 8	S	12480 12440*	- 12590	Y L,Y	
11241	O	2.3 II 8.0	M	6 2	S	12430* 12490	- -	L,Y Y	
11242	O	2.3 II 8.0	F	6 2	S	12440* 12500	12590 -	L,Y Y	
11243	O	2.3 II	F	1	S	12440*	12590	L,Y	
11244	O	2.3 II	M	3	S	12430*	-	L,Y	w/ Clamp
11245	O	2.3 II	F	3	S	12440*	12590	L,Y	
11246	O	2.3 II	F	2	S	12440*	12590	L,Y	
11247	O	2.3 II	M	2	S	12430*	-	L,Y	
11248	O	2.3 II	F	2	S	12440*	12590	L,Y	
11249	X	2.3 II	M	2	S	12430*	-	L,Y	
11250	O	2.3 II	F	2	S	12440*	12590	L,Y	
11251	X	2.3 II	F	3	U	12340*	-	L,Y	
11252	O	2.3 II	F	1	S	12440*	12590	L,Y	
11253	X	1.0 III 1.0 III	M	5 52	U	- -	- -	- -	PCB
11254	X	2.3 II	M	2	S	12430*	-	L,Y	
11255	O	2.3 II	F	2	S	12440*	12590	L,Y	
11256	X	1.3	M	11	S	12630	-	L	
11257	X	1.3	F	11	S	12650	-	L	
11258	O	4.8	M	1	U	12370	-	Y	
11259	O	4.8	F	1	U	12380	-	Y	
11260	X	2.3 II	F	20	U	12340*	-	L,Y	
11261	O	2.3 II	F	3	S	12440*	12590	L,Y	
11262	X	1.3	M	4	S	12630	-	L	Outer
11263	X	1.3	M	15	U	-	-	-	PCB
11264	O	1.3	F	15	U	12420	-	L	
11265	X	2.3 II	M	14	U	-	-	-	PCB

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11266	X	1.8 1.0	M	10 32	U	- -	- -	- -	PCB
11267	X	4.8 2.3 II	M	2 4	S	12470 12430*	- -	Y L,Y	
11268	X	2.3 II	M	4	S	12430*	-	L,Y	
11269	X	2.3 II	F	4	S	12440*	12590	L,Y	
11270	O	2.3 II	M	1	S	12430*	-	L,Y	
11271	O	2.3 II	F	1	S	12440*	12590	L,Y	
11272	O	2.3 II	M	2	S	12430*	-	L,Y	
11273	O	2.3 II	F	2	S	12440*	12590	L,Y	
11274	O	-	-	-	-	-	-	-	
11276	X	4.8	F	10	U	12380	-	Y	
11277	X	4.8 2.3 II	F	1 8	U	12380 12340*	- -	Y L,Y	
11278	O	2.3 II	F	2	U	12340*	-	L,Y	
11279	O	4.8 2.3 II	F	2 6	U	12380 12340*	- -	Y L,Y	
11280	O	2.3 II	F	6	U	12340*	-	L,Y	
11281	X	1.0 III 1.0 IV	M	98 24	U	- -	- -	- -	PCB
11282	X	2.3 II	F	1	S	12440*	12590	L,Y	
11283	X	4.8 2.3 II	F	2 2	S	12480 12440*	- 12590	Y L,Y	
11284	O	2.3 II	F	2	S	-	12790*	L,Y	
11285	O	2.3 II	F	2	S	-	12790*	L,Y	
11286	X	2.3 II	F	2	S	12440*	12590	L,Y	
11287	X	2.3 II 8.0	M	2 2	S	12430* 12490	- -	L,Y Y	
11288	X	2.3 II 8.0	F	2 2	S	12440* 12500	12590 -	L,Y Y	
11289	O	2.3 II	M	6	S	12430*	-	L,Y	
11290	O	2.3 II	F	6	S	12440*	12590	L,Y	
11291	O	2.3 II	M	4	S	12430*	-	L,Y	
11292	O	2.3 II	F	4	S	12440*	12590	L,Y	
11293	X	2.3 II	M	3	S	12430*	-	L,Y	
11294	O	2.3 II	F	3	S	12440*	12590	L,Y	
11295	O	2.3 II	M	3	S	12430*	-	L,Y	w/ Clamp
11296	X	2.3 II	F	3	U	12340*	-	L,Y	
11297	X	4.8	F	6	U	12380	-	Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11298	X	2.3 II	M	3	U	12330*	-	L,Y	
11299	O	2.3 II	M	2	U	12330*	-	L,Y	w/ Clamp
11300	O	2.3 II	M	2	U	12330*	-	L,Y	
11301	X	2.3 II	M	4	U	12330*	-	L,Y	
11302	X	4.8	F	9	U	12380	-	Y	
11303	X	2.3 II	M	2	S	12430*	-	L,Y	
11304	O	4.8	F	2	S	12480	-	Y	
		2.3 II		2		12440*		12590	
11305	X	1.3	M	2	U	12410	-	L	
11306	X	1.3	F	2	U	12420	-	L	
11307	X	1.3	M	15	U	12410	-	L	
		2.3 II		4		12330*		-	
11308	X	1.3	F	15	U	12420	-	L	
		2.3 II		4		12340*		-	
11309	X	1.3	M	13	U	12410	-	L	
		2.3 II		4		12330*		-	
11310	X	1.3	F	13	U	12420	-	L	
		2.3 II		4		12340*		-	
11311	O	2.3 II	F	12	U	12340*	-	L,Y	
11312	X	2.3 II	M	14	U	-	-	-	PCB
11313	X	2.3 II	F	4	U	12340*	-	L,Y	
11314	O	HEAD-LAMP	F	3	U	24140	24200	L,Y	
11315	X	2.3 II	F	1	U	12340*	-	L,Y	
11316	X	2.3 II	M	20	U	12330*	-	L,Y	
		6.3 II		1		-		-	
11317	O	2.3 II	F	5	S	12440*	12590	L,Y	
11318	X	1.3	M	5	U	-	-	-	PCB
11319	O	1.3	F	5	U	12420	-	L	
11320	X	1.3	M	8	U	-	-	-	PCB
11321	X	1.3	F	8	U	12420	-	L	
11322	X	2.3 II	M	2	S	12430*	-	L,Y	
11323	O	2.3 II	F	22	S	12440*	12590	L,Y	
		2.3 II		22	U	12340*	-	L,Y	
		6.3 II		1	S	24160	-	L	
11324	X	2.3 II	M	16	U	-	-	-	PCB
11325	X	2.3 II	M	10	U	-	-	-	PCB
11326	X	2.3 II	F	6	U	12340*	-	L,Y	
11327	X	2.3 II	M	5	U	12330*	-	L,Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11328	X	1.3	M	4	S	12630	-	L	Inner
11329	X	1.3	F	4	S	12650	-	L	Outer
11330	X	1.3	F	4	S	12650	-	L	Inner
11331	X	2.3 II	M	10	U	-	-	-	PCB
11332	O	4.8	F	2	S	12480	-	Y	
		2.3 II		8		12440*	12590	L,Y	
11333	X	1.8	M	4	U	12180	-	L	
		1.0		22		-	-	-	
11334	X	1.3	M	17	U	12410	-	L	
11335	X	1.3	F	17	U	12420	-	L	
11336	X	1.3	F	3	U	12420	-	L	
11337	X	2.3 II	M	14	U	-	-	-	PCB
11338	X	1.0	M	80	S	-	-	-	
11339	X	1.3	M	7	U	-	-	-	PCB
11340	X	1.3	F	7	U	12420	-	L	
11341	X	2.3 II	M	3	S	12430*	-	L,Y	
11342	X	1.0	M	40	U	-	-	-	
11343	X	1.0	M	28	U	-	-	-	PCB
11344	X	1.0	M	16	U	-	-	-	
11345	X	1.0	M	22	U	-	-	-	
11346	X	1.0	M	34	U	-	-	-	
11347	X	LA	F	40	U	-	-	-	
11348	O	2.3 II	M	3	S	12430*	-	L,Y	
11349	O	2.3 II	F	3	S	12440*	12590	L,Y	
11350	X	1.3	F	13	U	12420	-	L	
11351	X	2.3 II	M	16	U	-	-	-	PCB
11352	X	1.0 II	M	60	U	-	-	-	PCB
		1.8 II		16		-	-	-	
11353	X	2.3 II	M	8	U	12330*	-	L,Y	
11354	X	2.3 II	F	8	U	12340*	-	L,Y	
11355	X	4.8	M	4	U	12370	-	Y	
		2.3 II		38		12330*	-	L,Y	
		8.0		1		12390	-	Y	
11356	X	4.8	M	4	U	12370	-	Y	
		2.3 II		24		12330*	-	L,Y	
11357	X	2.3 II	M	27	U	12330*	-	L,Y	
11359	X	4.8	F	4	U	12380	-	Y	
		2.3 II		51		12340*	-	L,Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11360	X	4.8 2.3 II 8.0	F	4 38 1	U	12380 12340* 12400	- - -	Y L,Y Y	
11361	X	4.8 2.3 II	M	4 4	U	- -	- -	- -	PCB
11362	X	4.8 2.3 II	F	4 4	U	12380 12340*	- -	Y L,Y	
11363	O	2.3 II	F	1	S	12440*	12590	L,Y	
11364	O	1.0 III 1.0 IV	M	81 24	U	- -	- -	- -	PCB
11365	X	4.8 2.3 II	M	2 8	U	- -	- -	- -	PCB
11366	X	4.8 2.3 II	F	2 8	U	12380 12340*	- -	Y L,Y	
11367	X	1.3	M	2	U	12410	-	L	
11368	O	1.3	M	2	U	12410	-	L	
11369	O	1.3	F	2	U	12420	-	L	
11370	X	2.3 II	M	15	U	12330*	-	L,Y	
11371	X	2.3 II	M	15	U	12330*	-	L,Y	
11372	X	2.3 II	F	15	U	12340*	-	L,Y	
11373	X	2.3 II	M	25	U	12330*	-	L,Y	
11374	X	2.3 II	M	25	U	12330*	-	L,Y	
11375	X	2.3 II	F	25	U	12340*	-	L,Y	
11376	X	1.3	M	19	U	12410	-	L	
11377	X	1.3	F	19	U	12420	-	L	
11378	X	1.3	M	21	U	12410	-	L	
11379	X	1.3	F	21	U	12420	-	L	
11380	X	1.3	M	23	U	12410	-	L	
11381	X	1.3	F	23	U	12420	-	L	
11382	X	2.3 II	M	14	U	-	-	-	PCB
11383	X	2.3 II	F	14	U	12340*	-	L,Y	
11384	X	1.3	M	13	U	-	-	-	PCB
11385	X	8.0	M	3	U	12390	-	Y	
11386	X	8.0	F	2	U	12400	-	Y	
11387	X	4.8 8.0	F	1 2	U	12380 12400	- -	Y Y	
11388	X	2.3 II	F	2	U	12340*	-	L,Y	
11389	X	1.3	M	8	U	-	-	-	PCB

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11390	O	1.0 II 1.8 II	F	16 10	U	24020* 24100*	- -	L L,Y	
11391	O	1.0 II	F	16	U	24020*	-	L	
11392	O	1.0 II 1.8 II	F	16 6	U	24020* 24100*	- -	L L,Y	
11393	X	1.3	M	13	U	12410	-	L	
11394	X	1.3	F	13	U	12420	-	L	
11395	X	2.3 II	M	2	U	12330*	-	L,Y	
11396	X	2.3 II	F	2	U	12340*	-	L,Y	
11397	X	2.3 II	F	8	U	12340*	-	L,Y	
11398	X	2.3 II	F	4	U	12340*	-	L,Y	
11399	O	2.3 II	M	4	U	12330*	-	L,Y	
11400	O	4.8	F	1	S	12480	-	Y	
11401	X	2.3 II	F	2	S	12440*	12590	L,Y	
11402	X	1.3	M	7	U	-	-	-	PCB
11403	X	1.3	M	25	U	12410	-	L	
11404	X	1.3	F	25	U	12420	-	L	
11405	X	1.8 1.0 II 1.8 II	M	12 32 10	U	- - -	- - -	- - -	PCB
11406	X	1.0 II 1.8 II	F	22 4	U	24020* 24100*	- -	L L,Y	
11407	X	2.3 II	M	3	S	12430*	-	L,Y	w/o Clamp
11408	O	1.0 II	F	12	U	24020*	-	L	
11409	X	4.8	M	2	S	12470	-	Y	
11410	O	4.8	F	2	S	12480	-	Y	
11411	X	1.3 2.3 II	M	21 4	U	- -	- -	- -	PCB
11412	O	4.8 2.3 II	M	3 2	S	12470 12430*	- -	Y L,Y	
11413	O	4.8 2.3 II	F	3 2	S	12480 12440*	- 12590	Y L,Y	
11414	X	SL	F	3	S	-	-	-	
11415	X	2.3 II	M	16	U	12330*	-	L,Y	
11416	X	2.3 II	F	16	U	12340*	-	L,Y	
11417	O	2.3 II	F	17	U	12340*	-	L,Y	
11418	X	1.8 1.0 II 1.8 II	M	12 16 10	U	- - -	- - -	- - -	PCB

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11419	X	2.3 II	M	10	U	-	-	-	PCB
11420	X	2.3	F	17	U	12170	-	L	
11421	O	1.0 III	F	20	U	12690*	-	L	
		1.0 IV		11		12740	-	L	
11422	X	1.0 II	F	18	U	24020*	-	L	
		1.8 II		8		24100*	-	L,Y	
11423	O	1.0 II	F	16	U	24020*	-	L	
		1.8 II		10		24100*	-	L,Y	
11424	O	1.8 II	F	12	U	24100*	-	L,Y	
11425	X	1.0 II	F	16	U	24020*	-	L	
11426	X	2.3 II	M	4	U	-	-	-	PCB
11427	X	2.3 II	F	4	U	12340*	-	L,Y	
11428	O	2.3 II	F	1	S	12440*	12590	L,Y	
11429	X	2.3 II	F	2	U	12340*	-	L,Y	
11430	X	4.8	M	4	U	12370	-	Y	
		2.3 II		40		12330*	-	L,Y	
		8.0		5		12390	-	Y	
11431	X	4.8	F	4	U	12380	-	Y	
		2.3 II		40		12340*	-	L,Y	
		8.0		5		12400	-	Y	
11432	X	1.8 II	F	20	U	24100*	-	L,Y	
11433	O	1.8 II	F	14	U	24040	-	L,Y	
		1.8 II		14		24100*	-	L,Y	
11434	X	C-TYPE	M	16	U	12560	-	L	
11435	X	C-TYPE	F	16	U	12570	-	L	
11436	O	1.3	F	2	U	12420	-	L	
11437	X	2.3 II	F	14	U	12340*	-	L,Y	
11438	X	4.8	M	3	U	12370	-	Y	
		2.3 II		5		12330*	-	L,Y	
11439	X	4.8	F	3	U	12380	-	Y	
		2.3 II		5		12340*	-	L,Y	
11440	X	2.3 II	M	20	U	12330*	-	L,Y	
11441	X	2.3 II	F	20	U	12340*	-	L,Y	
11442	X	2.3 II	M	20	U	12330*	-	L,Y	
11443	X	2.3 II	F	20	U	12340*	-	L,Y	
11444	O	2.3 II	M	16	U	12330*	-	L,Y	
11445	X	2.3 II	F	16	U	12340*	-	L,Y	
11447	X	2.3 II	M	2	S	12430*	-	L,Y	
11448	X	2.3 II	F	2	S	12440*	12590	L,Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11449	X	1.3	M	10	U	-	-	-	PCB
11450	O	1.3	F	10	U	12420	-	L	
11451	O	2.3 II	F	3	S	-	12790*	L,Y	
11452	X	2.3 II	M	6	U	12330*	-	L,Y	
11453	X	2.3 II	F	12	U	12340*	-	L,Y	
11459	X	2.3 II	F	8	U	12340*	-	L,Y	
11460	X	4.8	M	2	S	12470	-	Y	
		2.3 II		6		12430*	-	L,Y	
11461	X	4.8	F	2	S	12480	-	Y	
		2.3 II		6		12440*	12590	L,Y	
11462	X	1.3	M	16	S	12630	-	L	
11463	X	1.3	F	16	S	12650	-	L	
11464	X	2.3 II	M	14	U	-	-	-	PCB
11465	X	2.3 II	F	14	U	12340*	-	L,Y	
11466	X	2.3 II	M	2	S	12430*	-	L,Y	
11467	O	2.3 II	F	2	S	12440*	12590	L,Y	
11468	X	1.3	M	22	U	-	-	-	PCB
11469	O	1.3	F	16	U	12420	-	L	
		2.3 II		4		12340*	-	L,Y	
11470	X	1.3	M	3	U	12410	-	L	
11471	O	1.3	F	3	U	12420	-	L	
11472	X	1.3	M	30	U	-	-	-	PCB
		2.3 II		4		-	-	-	
11473	X	1.3	M	21	U	-	-	-	PCB
		2.3 II		4		-	-	-	
11474	X	1.3	M	12	U	-	-	-	PCB
11475	O	1.3	F	12	U	12420	-	L	
11476	O	1.0 III	F	17	U	12690*	-	L	
		1.0 IV		7		12740	-	L	
11477	X	LAC	M	22	U	12100	-	L,Y	
11478	X	LAC	F	13	U	12110	-	L,Y	
11479	X	LAC	F	9	U	12110	-	L,Y	
11483	X	1.3	M	21	U	-	-	-	PCB
		2.3 II		4		-	-	-	
11484	X	2.3 II	M	1	U	12330*	-	L,Y	
		8.0		2		12390	-	Y	
11485	X	2.3 II	F	1	U	12340*	-	L,Y	
		8.0		2		12400	-	Y	
11486	O	2.3 II	M	2	S	12430*	-	L,Y	



## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11487	X	1.3	M	6	U	12410	-	L	
11488	X	1.3	F	6	U	12420	-	L	
11489	X	1.3	M	3	U	12410	-	L	
11490	O	1.3	F	3	U	12420	-	L	
11491	X	6.3	F	3	S	12540	-	Y	
11492	X	1.3	M	4	U	12410	-	L	
		2.3 II		2		12330*	-	L,Y	
11493	X	1.3	F	4	U	12420	-	L	
		2.3 II		2		12340*	-	L,Y	
11494	O	1.3	F	4	U	12420	-	L	
11495	X	1.3	F	4	U	12420	-	L	
11496	X	1.3	M	18	U	-	-	-	PCB
11497	X	1.3	F	18	U	12420	-	L	
11498	X	1.3	M	20	U	12410	-	L	
11499	X	1.3	F	20	U	12420	-	L	
11500	X	1.3	M	12	U	12410	-	L	
11501	O	1.3	M	16	U	-	-	-	PCB
		2.3 II		4		-	-	-	
11502	O	1.3	F	22	U	12420	-	L	
11503	O	1.3	M	22	U	12410	-	L	
11504	O	1.3	M	16	U	12410	-	L	
		2.3 II		4		12330*	-	L,Y	
11505	X	1.3	M	17	U	12410	-	L	
11506	X	1.3	F	17	U	12420	-	L	
11507	X	1.3	M	64	U	-	-	-	PCB
11508	X	1.3	F	40	U	12420	-	L	
11509	X	1.3	F	24	U	12420	-	L	
11510	X	1.3	M	14	U	-	-	-	PCB
11511	X	1.3	F	14	U	12420	-	L	
11512	X	ABS	F	2	U	-	-	-	
11514	X	ABS	F	32	U	-	-	-	
11517	X	ABS	F	6	S	-	-	-	
11519	X	ABS	F	2	S	-	-	-	
11520	X	ABS	F	2	S	-	-	-	
11522	X	ABS	F	4	S	-	-	-	
11524	X	ABS	F	12	U	-	-	-	
11526	X	4.8	M	2	U	-	-	-	PCB
		2.3 II		8		-	-	-	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11527	O	4.8 2.3 II	F	2 8	U	12380 12340*	- -	Y L,Y	
11528	O	2.3 II	M	7	U	12330*	-	L,Y	
11529	O	2.3 II	F	7	U	12340*	-	L,Y	
11530	O	2.3 II	M	12	U	12330*	-	L,Y	
11531	O	2.3 II	F	12	U	12340*	-	L,Y	
11532	O	1.3	M	8	U	12410	-	L	
11533	O	1.3	F	8	U	12420	-	L	
11534	O	2.3 II	M	9	U	12330*	-	L,Y	
11535	O	2.3 II	F	9	U	12340*	-	L,Y	
11536	O	2.3 II	M	10	U	12330*	-	L,Y	
11537	O	2.3 II	F	10	U	12340*	-	L,Y	
11538	O	2.3 II	M	11	U	12330*	-	L,Y	
11539	O	2.3 II	F	11	U	12340*	-	L,Y	
11540	X	2.3 II	F	2	S	12440*	12590	L,Y	
11541	O	2.3 II	M	13	U	12330*	-	L,Y	
11542	O	2.3 II	F	13	U	12340*	-	L,Y	
11543	X	2.3 II	M	9	U	-	-	-	PCB
11544	O	1.3	M	10	U	-	-	-	PCB
11545	X	2.3 II	M	2	U	12330*	-	L,Y	
11546	X	4.8 2.3 II	M	4 12	U	12370 12330*	- -	Y L,Y	
11547	X	4.8 2.3 II	F	4 12	U	12380 12340*	- -	Y L,Y	
11548	X	1.8 1.0	M	8 18	U	- -	- -	- -	PCB
11549	X	1.8 II 1.8 II	M	34 34	U	24030 24090	- -	L,Y L,Y	
11550	X	1.8	M	12	U	-	-	-	PCB
11551	X	4.8	M	8	U	12370	-	Y	
11552	O	1.3 2.3 II	F	16 22	U	12420 12340*	- -	L L,Y	
11553	X	1.3	M	5	U	-	-	-	PCB
11554	X	1.3 2.3 II	M	16 22	U	12410 12330*	- -	L L,Y	
11555	X	1.3 2.3 II	F	16 22	U	12420 12340*	- -	L L,Y	
11556	O	1.3	F	14	U	12420	-	L	
11557	X	1.3	M	60	U	-	-	-	PCB

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11558	X	1.3	F	20	U	12420	-	L	
11559	X	1.3	M	8	U	12410	-	L	
		2.3 II		9		12330*	-	L,Y	
11560	X	1.3	F	8	U	12420	-	L	
		2.3 II		9		12340*	-	L,Y	
11561	X	1.3	M	6	U	12410	-	L	
		2.3 II		10		12330*	-	L,Y	
11562	X	1.3	F	6	U	12420	-	L	
		2.3 II		10		12340*	-	L,Y	
11563	O	1.8	M	10	U	-	-	-	PCB
		1.0		32		-	-	-	
11564	O	1.0 II	M	26	U	-	-	-	PCB
		1.8 II		16		-	-	-	
11565	O	1.0 II	F	10	U	24020*	-	L	
		1.8 II		6		24100*	-	L,Y	
11566	X	1.0 II	F	40	S	24060	-	L	
11567	X	1.0 II	M	40	S	-	-	-	PCB
11568	X	2.3 II	M	13	U	12330*	-	L,Y	
11569	X	2.3 II	F	2	S	12440*	12590	L,Y	
		8.0		2		12500	-	Y	
11570	O	1.3	M	19	U	12410	-	L	
11571	O	1.3	F	19	U	12420	-	L	
11572	O	1.3	M	52	U	-	-	-	PCB
11573	O	1.3	M	16	U	12410	-	L	
11574	O	1.3	F	16	U	12420	-	L	
11575	O	1.8	M	22	U	-	-	-	PCB
		1.0		32		-	-	-	
11576	O	1.8	M	16	U	-	-	-	PCB
		1.0		48		-	-	-	
11577	O	1.8	M	16	U	-	-	-	PCB
		1.0		60		-	-	-	
11578	O	1.0	M	100	U	-	-	-	PCB
11579	O	8.0	F	2	U	12400	-	Y	
11580	X	1.3	M	10	U	12410	-	L	
11581	X	1.3	F	10	U	12420	-	L	
11582	X	1.3	M	8	U	12410	-	L	
11583	O	4.8	F	6	U	12380	-	Y	
11585	X	2.3 II	M	16	U	-	-	-	PCB
11586	X	1.0 III	F	17	U	12640	-	L	IDC

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11587	O	2.3 II	M	6	U	12330*	-	L,Y	
11588	X	1.3	M	8	U	12410	-	L	
11589	X	1.3	M	2	U	-	-	-	PCB
11590	X	1.3	M	8	U	12410	-	L	
		2.3 II		6		12330*	-	L,Y	
11591	X	1.3	F	8	U	12420	-	L	
		2.3 II		6		12340*	-	L,Y	
11592	O	2.3 II	F	8	S	12440*	12590	L,Y	
11593	X	2.3 II	F	8	S	12440*	12590	L,Y	
11594	O	1.3	F	10	U	12420	-	L	
		2.3 II		8		12340*	-	L,Y	
11595	O	1.3	F	10	U	12420	-	L	
		2.3 II		8		12340*	-	L,Y	
11596	O	4.8	M	2	U	12370	-	Y	
		2.3 II		8		12330*	-	L,Y	
11597	X	1.8	M	10	U	-	-	-	PCB
		1.0		32		-	-	-	
11598	O	2.3 II	M	5	S	12430*	-	L,Y	
11599	O	2.3 II	F	5	S	12440*	12590	L,Y	
11600	O	4.8	M	3	S	12470	-	Y	
		2.3 II		12		12430*	-	L,Y	
		8.0		2		12490	-	Y	
11601	X	4.8	F	3	S	12480	-	Y	
		2.3 II		12		12440*	12590	L,Y	
11602	X	4.8	M	2	U	12370	-	Y	
		2.3 II		3		12330*	-	L,Y	
11603	X	4.8	F	2	U	12380	-	Y	
		2.3 II		3		12340*	-	L,Y	
11604	O	2.3 II	F	13	U	12340*	-	L,Y	
11605	X	1.3	M	2	U	12410	-	L	
		2.3 II		2		12330*	-	L,Y	
11606	X	1.3	F	2	U	12420	-	L	
		2.3 II		2		12340*	-	L,Y	
11607	X	2.3 II	M	3	S	12430*	-	L,Y	
11608	O	2.3 II	F	2	U	12340*	-	L,Y	
11609	X	4.8	M	3	S	12470	-	Y	
		2.3 II		8		12430*	-	L,Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11610	X	4.8 2.3 II	M	4 22	U	12370 12330*	- -	Y L,Y	
11611	X	4.8 2.3 II	F	4 22	U	12380 12340*	- -	Y L,Y	
11612	X	4.8 2.3 II	F	3 8	S	12480 12440*	- 12590	Y L,Y	
11613	O	1.3 2.3 II	M	8 2	U	12410 12330*	- -	L L,Y	
11614	X	1.3 2.3 II	F	8 2	U	12420 12340*	- -	L L,Y	
11615	O	4.8	F	8	U	12380	-	Y	
11616	O	1.3	F	6	U	12420	-	L	
11617	X	2.3 II	F	6	U	12340*	-	L,Y	
11618	X	1.3	F	40	U	12420	-	L	
11619	X	1.0 II 1.8 II	M	16 18	U	- -	- -	- -	PCB
11620	X	1.3	M	3	U	-	-	-	PCB
11621	X	1.3	M	22	U	-	-	-	PCB
11622	O	2.3 II	M	3	S	12430*	-	L,Y	
11623	O	1.3	M	8	U	12410	-	L	
11624	X	1.3 2.3 II	M	6 10	U	- -	- -	- -	PCB
11625	X	1.3 4.8 2.3 II	M	5 2 17	U	- - -	- - -	- - -	PCB
11626	X	2.3 II	F	12	U	12340*	-	L,Y	
11627	X	1.3	M	20	U	12410	-	L	
11628	O	1.3	F	22	U	12420	-	L	
11629	O	1.3	M	8	U	-	-	-	PCB
11630	O	1.3	F	8	U	12420	-	L	
11631	O	4.8 2.3 II	M	6 20	U	12370 12330*	- -	Y L,Y	
11632	X	4.8 2.3 II	F	6 20	U	12380 12340*	- -	Y L,Y	
11633	X	1.3	F	8	U	12420	-	L	
11634	X	1.3	M	12	U	-	-	-	PCB
11635	X	1.3	M	13	U	-	-	-	PCB
11636	X	1.3	M	8	U	-	-	-	PCB
11637	O	1.0 III	F	28	U	12690*	-	L	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11638	O	1.0 III 1.0 IV	F	16 6	U	12690* 12740	- -	L L	
11639	X	-	-	-	-	-	-	-	
11640	X	6.3 II	F	4	S	24160	-	L	
11641	O	1.3	M	10	U	-	-	-	PCB
11642	O	1.3	F	10	U	12420	-	L	
11643	O	4.8 2.3 II	F	2 7	S	12480 12440*	- 12590	Y L,Y	
11644	X	1.3	M	14	U	-	-	-	PCB
11645	X	1.3 2.3 II	M	60 10	U	- -	- -	- -	PCB
11646	X	1.3 2.3 II	M	36 16	U	- -	- -	- -	PCB
11647	X	1.3 2.3 II	M	20 16	U	- -	- -	- -	PCB
11648	X	1.3	F	16	U	12420	-	L	
11649	O	2.3 II	F	12	U	12340*	-	L,Y	
11650	X	1.8 1.0	M	22 32	U	- -	- -	- -	PCB
11651	X	1.3 2.3 II	M	8 6	U	- -	- -	- -	PCB
11652	X	1.3 2.3 II	F	10 6	U	12420 12340*	- -	L L,Y	
11653	O	2.3 II	F	10	S	12440*	12590	L,Y	
11654	O	1.3	M	14	U	12410	-	L	
11655	O	8.0	M	2	U	12390	-	Y	
11656	O	2.3 II	F	12	U	12340*	-	L,Y	
11657	O	1.3	F	10	U	12420	-	L	
11658	O	2.3 II	F	10	S	12440*	12590	L,Y	
11659	O	HEAD-LAMP	F	2	S	24150	24190	L,Y	
11660	O	HEAD-LAMP	F	2	S	24150	24190	L,Y	
11661	O	2.3 II	F	12	U	12340*	-	L,Y	
11662	X	8.0	F	4	U	12400	-	Y	
11663	X	2.3 II	F	6	S	12440*	12590	L,Y	
11664	X	2.3 II	F	12	S	12440*	12590	L,Y	
11665	O	OBD II	F	16	U	-	-	-	
11666	X	-	-	-	-	-	-	-	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11667	X	4.8 8.0	F	1 2	U	12380 12400	- -	Y Y	
11669	X	2.3 II	M	27	U	12330*	-	L,Y	
11670	X	2.3 II	F	27	U	12340*	-	L,Y	
11671	O	1.3 2.3 II	F	8 9	U	12420 12340*	- -	L L,Y	
11672	X	1.3 2.3 II	F	8 9	U	12420 12340*	- -	L L,Y	
11676	X	8.0	F	4	U	12400	-	Y	
11677	X	2.3 II	F	15	S	12440*	12590	L,Y	
11680	X	1.3	M	16	U	12410	-	L	
11681	X	1.3	F	16	U	12420	-	L	
11682	X	1.3	M	16	U	12410	-	L	
11683	X	1.3	F	16	U	12420	-	L	
11684	O	8.0	F	2	U	12400	-	Y	
11685	O	8.0	F	3	U	12400	-	Y	
11686	O	4.8	F	8	U	12380	-	Y	
11687	X	6.3	F	2	U	12060	12580	Y	
11688	X	1.3	M	5	S	12630	-	L	
11689	X	1.3	M	5	S	12630	-	L	
11690	X	1.3	F	5	S	12650	-	L	Outer
11691	X	1.3	F	5	S	12650	-	L	Inner
11693	X	2.3 II	F	12	U	12340*	-	L,Y	
11694	X	2.3 II	M	13	U	12330*	-	L,Y	
11695	X	2.3 II	F	13	U	12340*	-	L,Y	
11696	X	1.5	M	6	U	-	-	-	PCB
11697	X	1.5	F	6	U	-	-	-	
11698	O	1.3	F	12	S	12650	-	L	
11700	X	1.0 II 1.8 II	M	32 10	U	- -	- -	- -	PCB
11701	O	4.8 2.3 II	F	4 4	U	12380 12340*	- -	Y L,Y	
11703	X	2.3 II	F	1	U	12340*	-	L,Y	
11709	X	2.3 II	M	9	U	12330*	-	L,Y	
11710	X	2.3 II	F	9	U	12340*	-	L,Y	
11714	X	2.3 II	F	13	U	12340*	-	L,Y	
11716	X	1.3 2.3 II	F	10 8	U	12420 12340*	- -	L L,Y	
11720	X	2.3 II	F	12	U	12340*	-	L,Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980- 11724	X	2.3 II	M	2	U	82998- 12350*	82998- -	L,Y	
11731	X	HEAD-LAMP	F	3	U	24140	24200	L,Y	
11733	O	1.8 1.0 1.0 II 1.8 II	M	22 16 16 22	U	- - - -	- - - -	- - - -	PCB
11735	X	2.3 II	M	2	U	12330*	-	L,Y	
11736	O	2.3 II	F	2	U	12340*	-	L,Y	
11737	X	2.3 II	M	1	U	12330*	-	L,Y	
11738	X	2.3 II	F	1	U	12340*	-	L,Y	
11739	X	2.3 II	M	7	U	12330*	-	L,Y	
11740	X	2.3 II	F	7	U	12340*	-	L,Y	
11742	O	4.8	F	4	U	12380	-	Y	
11743	X	1.3	M	14	U	-	-	-	PCB
11744	X	1.3	M	14	U	-	-	-	PCB
11745	X	1.3	M	18	U	-	-	-	PCB
11746	X	1.3	M	22	U	-	-	-	PCB
11747	X	2.3 II	M	12	U	-	-	-	PCB
11748	X	2.3 II	M	18	U	-	-	-	PCB
11749	X	2.3 II	M	20	U	-	-	-	PCB
11750	X	2.3 II	M	20	U	-	-	-	PCB
11751	X	2.3 II	M	18	U	-	-	-	PCB
11752	X	2.3 II	M	10	U	-	-	-	PCB
11753	X	2.3 II	M	14	U	-	-	-	PCB
11757	X	2.3 II	M	10	U	12330*	-	L,Y	
11763	X	2.3 II	M	3	U	12330*	-	L,Y	
11764	O	2.3 II	F	3	U	12340*	-	L,Y	
11765	X	2.3 II	M	4	U	12330*	-	L,Y	
11766	X	2.3 II	F	4	U	12340*	-	L,Y	
11767	X	2.3 II	M	1	U	12330*	-	L,Y	
11769	X	2.3 II	F	2	U	12340*	-	L,Y	
11771	X	4.8 2.3 II	F	2 2	U	12380 12340*	- -	Y L,Y	
11772	X	2.3 II	F	5	U	12340*	-	L,Y	
11773	X	2.3 II	F	2	S	12440*	12590	L,Y	
11774	X	9.5	M	1	U	-	-	-	
11775	X	9.5	F	1	U	-	-	-	
11777	X	1.3	F	3	U	12420	-	L	



## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11778	O	4.8	F	6	U	12380	-	Y	
11779	O	2.3 II	M	4	U	12330*	-	L,Y	
11780	O	2.3 II	F	6	U	12340*	-	L,Y	
11781	X	2.3 II	F	10	U	12340*	-	L,Y	
11782	X	2.3 II	F	12	U	12340*	-	L,Y	
11784	O	4.8	F	2	S	12480	-	Y	
		2.3 II		7		12440*	12590	L,Y	
11785	X	1.0 J	M	48	U	-	-	-	PCB
		1.8 J		16		-	-	-	
11786	X	1.0 J	F	16	U	-	-	-	
		1.8 J		10		-	-	-	
11787	X	1.0 J	F	16	U	-	-	-	
11788	X	1.0 J	F	16	U	-	-	-	
		1.8 J		6		-	-	-	
11789	X	1.0 III	M	2	S	12710	-	L	
11790	X	1.0 III	F	2	S	12720*	-	L	
11791	X	2.3 II	F	14	U	12340*	-	L,Y	
11792	X	2.3 II	F	4	U	12340*	-	L,Y	
11794	X	VH	F	7	U	-	-	-	
11797	X	2.3 II	F	5	U	12340*	-	L,Y	
11799	X	4.8	F	4	U	12380	-	Y	
11800	X	2.3 II	F	10	U	12340*	-	L,Y	
11805	X	2.3 II	F	14	U	12340*	-	L,Y	
11809	X	4.8	M	4	U	12370	-	Y	
11812	X	2.3 II	M	4	U	12330*	-	L,Y	
11814	X	2.3 II	M	6	U	12330*	-	L,Y	
11817	X	2.3 II	F	10	U	12340*	-	L,Y	
11820	X	2.3 II	F	6	U	12340*	-	L,Y	
11823	X	2.3 II	M	10	U	12330*	-	L,Y	
11824	X	8.0	F	2	U	12400	-	Y	
11827	X	2.3 II	F	13	U	12340*	-	L,Y	
11839	X	2.3 II	F	2	U	12340*	-	L,Y	
11840	X	2.3 II	F	2	U	12340*	-	L,Y	
11841	X	2.3 II	F	4	U	12340*	-	L,Y	
11842	X	2.3 II	F	4	U	12340*	-	L,Y	
11843	X	2.3 II	M	5	U	12330*	-	L,Y	
11847	X	2.3 II	F	12	U	12340*	-	L,Y	
11848	X	2.3 II	F	13	U	12340*	-	L,Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11851	X	4.8 2.3 II	F	4 20	S	12480 -	- 12790*	Y L,Y	
11853	X	6.3	F	1	U	12060	12580	Y	
11854	X	1.0 III	M	2	S	12710	-	L	
11856	O	1.0 III	F	2	S	12720*	-	L	
11857	X	1.0 III	F	4	S	12720*	-	L	
11858	O	2.3 II	F	6	S	12440*	12590	L,Y	
11859	X	2.3 II	F	2	S	12440*	12590	L,Y	
11860	X	2.3 II	F	3	S	12440*	12590	L,Y	
11861	X	4.8 1.5	F	25 25	S	12480 -	- -	Y -	
11862	O	PAI 1	F	2	U	-	-	-	
11863	X	1.0 III	M	2	S	12710	-	L	
11864	X	1.0 III	F	2	S	12720*	-	L	
11865	X	1.0 III	M	2	S	12710	-	L	
11866	X	1.0 III	M	44	U	-	-	-	PCB
11867	X	1.0 III	F	12	U	12690*	-	L	
11868	X	1.0 III	F	20	U	12690*	-	L	
11869	X	1.0 III	F	12	U	12690*	-	L	
11870	X	1.0 III	M	52	U	-	-	-	PCB
11871	X	1.0 III	F	12	U	12690*	-	L	
11872	X	1.0 III	F	28	U	12690*	-	L	
11873	X	1.0 III	F	12	U	12690*	-	L	
11874	X	2.3 II	M	3	U	-	-	-	PCB
11875	O	2.3 II	F	2	S	-	12790*	L,Y	
11876	X	1.0 III 2.3 II	M	19 6	U	- -	- -	- -	PCB
11877	O	1.0 III 2.3 II	F	19 6	U	12690* 12340*	- -	L L,Y	
11878	O	4.8	M	4	U	12370	-	Y	
11879	X	4.8	F	6	U	12380	-	Y	
11880	X	8.0	F	3	U	12400	-	Y	
11881	X	9.5	F	1	U	-	-	-	
11882	X	4.8 2.3 II	F	4 20	S	12480 -	- 12790*	Y L,Y	
11883	X	1.0 III	M	2	U	12670*	-	L	
11884	X	1.0 III	F	2	U	12690*	-	L	
11885	O	2.3 II	F	4	S	-	12790*	L,Y	
11886	O	1.0 III	F	2	U	12690*	-	L	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11889	X	1.0 III	M	2	U	12670*	-	L	
11890	X	1.0 III	F	2	U	12690*	-	L	
11891	X	1.0 III	M	4	U	12670*	-	L	
11892	X	1.0 III	F	4	U	12690*	-	L	
11893	X	4.8 2.3 II	F	4 20	S	12480 -	- 12790*	Y L,Y	
11898	X	1.0 III	F	2	S	12720*	-	L	
11899	X	1.8 1.0	M	8 18	U	- -	- -	- -	PCB
11900	X	2.3 II	F	2	S	-	12790*	L,Y	
11901	X	2.3 II	M	2	S	12430*	-	L,Y	
11902	O	1.8 1.0	M	6 32	U	- -	- -	- -	PCB
11903	X	1.0 III 1.0 III	M	5 44	U	- -	- -	- -	PCB
11904	X	1.0 III	M	5	S	12710	-	L	
11905	X	1.3 2.3 II	M	16 4	U	- -	- -	- -	PCB
11906	X	SL	F	83	U	12130	-	L,Y	
11907	X	SL	F	3	S	-	-	-	
11908	X	SL	F	5	U	12130	-	L,Y	
11909	O	1.0 III	F	5	U	12690*	-	L	
11910	X	1.0 III	M	14	U	12670*	-	L	
11911	O	1.0 III	F	14	U	12690*	-	L	
11912	X	1.0 III	M	18	U	12670*	-	L	
11913	O	1.0 III	F	18	U	12690*	-	L	
11914	O	1.0 III	F	18	U	12640	-	L	IDC
11915	O	1.0 III	F	22	U	12690*	-	L	
11916	X	1.0 III	M	40	U	-	-	-	PCB
11917	X	1.0 III	M	2	U	12670*	-	L	
11918	O	1.0 III	F	2	U	12690*	-	L	
11919	O	1.0 III	F	2	U	12640	-	L	IDC
11920	O	1.0 III	M	5	U	12670*	-	L	
11921	O	1.0 III	F	5	U	12640	-	L	IDC
11922	X	1.0 III	M	10	U	12670*	-	L	
11923	O	1.0 III	F	10	U	12690*	-	L	
11924	O	1.0 III	F	10	U	12640	-	L	IDC
11925	O	1.0 III	F	14	U	12640	-	L	IDC
11926	O	1.0 III	M	22	U	12670*	-	L	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11927	O	1.0 III	F	22	U	12640	-	L	IDC
11928	X	1.0 III	M	54	U	-	-	-	PCB
11929	X	2.3 II	M	4	S	12430*	-	L,Y	
11930	X	2.3 II	F	4	S	12440*	12590	L,Y	
11933	X	1.0 III	M	2	U	12670*	-	L	
11934	X	1.0 III	M	81	U	-	-	-	PCB
		1.0 IV		24		-			
11935	X	1.0 III	F	20	U	12690*	-	L	
		1.0 IV		11		12740		-	
11936	X	8.0	M	3	U	12390	-	Y	
11937	X	INVERT-ER	M	3	U	-	-	-	
11938	X	INVERT-ER	F	3	U	-	-	-	
11939	O	-	-	-	-	-	-	-	
11940	X	PIN	M	2	S	-	-	-	
11941	X	LA	F	1	S	-	-	-	
11942	O	LA	F	1	S	-	-	-	
11943	X	SOCKET	F	1	S	-	-	-	
11944	O	SOCKET	F	1	S	-	-	-	
11945	O	PIN	M	2	S	-	-	-	
11946	X	1.0 III	M	5	U	-	-	-	PCB
11947	X	1.0 III	F	8	U	12690*	-	L	
		2.3 II		4		12340*		-	
11948	O	1.0 III	F	10	U	12640	-	L	IDC
11949	X	1.0 III	M	18	U	-	-	-	PCB
11950	X	1.0 III	F	4	U	12690*	-	L	
11951	X	1.0 III	M	13	U	-	-	-	PCB
11952	X	1.0 III	F	13	U	12690*	-	L	
11953	X	1.0 III	M	64	U	-	-	-	PCB
		2.3 II		14		-			
11954	X	1.0 III	F	8	U	12690*	-	L	
		2.3 II		9		12340*		-	
11955	X	1.0 III	F	19	U	12690*	-	L	
11956	X	1.0 III	F	21	U	12690*	-	L	
11957	X	1.0 III	F	16	U	12690*	-	L	
		2.3 II		5		12340*		-	
11960	X	2.3 II	F	5	S	12440*	12590	L,Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
11961	X	1.0 III 1.0 III	M	5 28	U	- -	- -	- -	PCB
11962	X	9.5	M	1	S	-	-	-	
11963	X	9.5	F	1	S	-	-	-	
11964	O	2.3 II	F	4	S	12440*	12590	L,Y	
11965	X	8.0	M	4	U	-	-	-	PCB
11966	X	1.0 II	M	22	U	-	-	-	PCB
11967	O	1.0 III	M	2	U	12670*	-	L	
11968	X	1.0 III	M	5	U	-	-	-	PCB
11969	X	1.0 III	M	14	U	-	-	-	PCB
11970	X	1.0 III 2.3 II	M	16 4	U	- -	- -	- -	PCB
11971	X	1.0 III 2.3 II	F	16 4	U	12690* 12340*	- -	L L,Y	
11972	X	1.0 III 2.3 II	M	49 14	U	- -	- -	- -	PCB
11973	O	1.0 III 2.3 II	F	10 8	U	12690* 12340*	- -	L L,Y	
11974	X	1.0 III	F	20	U	12690*	-	L	
11976	O	-	-	-	-	-	-	-	
11978	X	OBD II	F	16	U	-	-	-	
11985	X	1.0 III	M	4	U	-	-	-	PCB
11986	O	1.0 III	F	6	U	12690*	-	L	
11987	X	1.0 III	F	3	U	12690*	-	L	
11988	O	1.0 III	F	4	U	12640	-	L	IDC
11989	X	1.0 III	F	8	U	12690*	-	L	
11990	X	1.0 III 2.3 II	M	37 18	U	- -	- -	- -	PCB
11992	X	1.0 III	M	2	U	12670*	-	L	
11993	X	1.0 III	M	10	U	-	-	-	PCB
11994	X	2.3 II	M	3	U	-	-	-	PCB
11995	O	-	-	-	-	-	-	-	
11996	X	9.5	F	2	U	-	-	-	
12002	X	1.0 III 2.3 II	M	6 5	U	12670* 12330*	- -	L L,Y	
12003	X	1.0 III 2.3 II	F	6 5	U	12690* 12340*	- -	L L,Y	
12004	X	1.0	M	6	U	-	-	-	IDC
12005	X	2.3 II	F	4	S	-	12790*	L,Y	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-12006	O	-	-	-	-	82998-	82998-	-	
12007	X	1.0 III 2.3 II	F	4 9	U	12690* 12340*	- -	L L,Y	
12008	O	1.0 III 2.3 II	F	2 8	U	12690* 12340*	- -	L L,Y	
12009	X	1.0 III	M	10	U	-	-	-	PCB
12010	X	1.0 III 2.3 II	M	10 8	U	- -	- -	- -	PCB
12011	X	1.0 III	M	18	U	-	-	-	PCB
12012	X	1.0 III	F	6	U	12690*	-	L	
12013	X	1.0 III	M	6	U	-	-	-	PCB
12014	X	2.3 II	F	2	U	12340*	-	L,Y	
12015	X	1.0 III	M	14	U	-	-	-	PCB
12016	X	1.0 III	M	4	U	12670*	-	L	
12017	X	1.0 III	F	4	U	12690*	-	L	
12018	X	2.3 II	F	4	U	12340*	-	L,Y	
12019	X	1.0 III	F	4	U	12640	-	L	IDC
12020	O	4.8 1.0 III	F	4 30	S	12480 12720*	- -	Y L	
12021	O	4.8 1.0 III	F	4 23	S	12480 12720*	- -	Y L	
12022	X	4.8 1.0 III	F	4 16	S	12480 12720*	- -	Y L	
12023	X	1.0 III	M	10	U	12660	-	L	IDC
12024	X	1.0 III	M	22	U	12670*	-	L	
12025	X	1.0 III 2.3 II	M	16 4	U	12670* 12330*	- -	L L,Y	
12026	X	2.3 II	F	9	U	24220	-	L	IDC
12027	X	2.3 II	F	13	U	24220	-	L	IDC
12028	O	2.3 II	F	2	S	12440*	12590	L,Y	
12029	X	1.0	M	2	U	-	-	-	
12030	X	1.0 III	M	22	U	-	-	-	PCB
12031	X	1.0 J 1.8 J	M	60 16	U	- -	- -	- -	PCB
12032	X	1.0 J	F	12	U	-	-	-	
12033	X	4.8 1.0 III	M	2 18	U	- -	- -	- -	PCB
12034	X	4.8 1.0 III	F	2 18	U	12380 12690*	- -	Y L	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
12035	X	1.0 III 2.3 II	M	41 6	U	- -	- -	- -	PCB
12036	X	1.0 III	M	5	U	-	-	-	PCB
12037	X	1.0 III 2.3 II	M	16 4	U	- -	- -	- -	PCB
12038	O	1.0 III 2.3 II	F	16 4	U	12690* 12340*	- -	L L,Y	
12039	X	VH	F	2	U	-	-	-	
12041	X	HFC	M	1	U	-	-	-	
12050	X	1.0 III	M	5	U	-	-	-	PCB
12055	X	1.0 III 1.0 IV	M	100 22	U	- -	- -	- -	PCB
12056	X	0.64	F	6	U	-	-	-	
12057	X	2.3 II	F	4	S	12440*	12590	L,Y	
12058	X	4.8 8.0	F	1 2	S	12480 12500	- -	Y Y	
12059	X	1.0 III	M	7	U	12670*	-	L	
12060	X	1.0 III	F	7	U	12690*	-	L	
12061	X	1.0 III	M	8	U	-	-	-	PCB
12062	X	1.0 III	M	2	U	12670*	-	L	
12063	X	1.0 III	F	2	U	12690*	-	L	
12064	X	1.0 III	M	6	U	-	-	-	PCB
12067	X	1.0 III	F	6	U	12690*	-	L	
12068	X	8.0	F	2	S	12500	-	Y	
12070	X	2.3 II	F	24	U	12340*	-	L,Y	
12071	X	2.3 II	F	32	U	12340*	-	L,Y	
12079	X	B TO J	F	24	U	-	-	-	
12080	X	1.0 III	F	8	S	12720*	-	L	
12081	X	1.0 III	M	29	U	12670*	-	L	
12082	X	1.0 III	F	14	U	12690*	-	L	
12087	X	1.0 III	M	20	U	-	-	-	PCB
12088	O	2.3 II	F	2	U	12340*	-	L,Y	
12089	X	2.3 II	F	2	U	12340*	-	L,Y	
12090	X	2.3 II	F	12	U	12340*	-	L,Y	
12091	X	1.0 III	F	8	U	12690*	-	L	
12092	O	0.64 1.0 IV	F	5 2	U	- 12740	- -	- L	
12093	X	1.0 III	M	16	U	-	-	-	PCB
12094	X	1.0 III	F	16	U	12690*	-	L	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980- 12095	X	M6 NUT	F	3	S	82998- -	82998- -	-	
12096	X	1.0 III 2.3 II	F	12 20	U	12690* 12340*	- -	L L,Y	
12101	X	2.3 II	F	16	U	12340*	-	L,Y	
12102	X	2.3 II	F	28	U	12340*	-	L,Y	
12104	X	2.3 II	F	16	U	12340*	-	L,Y	
12105	X	2.3 II	M	16	U	12330*	-	L,Y	
12106	X	2.3 II	F	20	U	12340*	-	L,Y	
12108	X	2.3 II	M	18	U	-	-	-	PCB
12109	X	PAI 1	F	2	U	-	-	-	
12110	X	VALVE	F	2	U	-	-	-	
12111	X	VALVE	F	2	U	-	-	-	
12112	X	1.0 III	M	8	U	-	-	-	PCB
12113	X	1.0 III	F	8	U	12690*	-	L	
12114	X	1.0 III 2.3 II	F	6 28	U	12690* 12340*	- -	L L,Y	
12116	O	4.8 1.0 III	F	4 20	S	12480 12720*	- -	Y L	
12117	X	2.3 II	F	2	S	-	12790*	L,Y	
12118	X	8.0	M	2	U	-	-	-	PCB
12119	X	8.0	M	2	U	-	-	-	PCB
12120	X	8.0	F	2	U	12400	-	Y	
12122	X	1.0 III 2.3 II	F	6 12	U	12690* 12340*	- -	L L,Y	
12123	X	1.0 III	M	4	U	12670*	-	L	
12125	X	LA	F	1	S	-	-	-	
12129	X	LA	F	1	S	-	-	-	
12131	X	BUS- BAR	M	3	S	-	-	-	
12134	X	1.0 III	M	10	U	-	-	-	PCB
12135	X	1.0 III	F	10	U	12690*	-	L	
12136	X	LA	F	1	S	-	-	-	
12137	X	1.0 III 2.3 II	M	14 6	U	- -	- -	- -	PCB
12138	O	PAI 1	F	2	U	-	-	-	
12140	X	1.0 II 1.8 II	M	48 16	U	- -	- -	- -	PCB
12141	X	0.64 1.0 IV	M	133 34	U	- -	- -	- -	PCB



## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
12142	X	0.64 1.0 IV	F	24 7	U	12750*	-	L	
						12740	-	L	
12143	X	0.64 1.0 IV	F	25 7	U	12750*	-	L	
						12740	-	L	
12144	X	0.64 1.0 IV	F	27 7	U	12750*	-	L	
						12740	-	L	
12145	X	0.64 1.0 IV	F	28 7	U	12750*	-	L	
						12740	-	L	
12146	X	0.64 1.0 IV	F	29 6	U	12750*	-	L	
						12740	-	L	
12147	X	0.64 2.3 II	M	68 12	U	-	-	-	PCB
						-	-	-	
12148	X	0.64 2.3 II	M	40 10	U	-	-	-	PCB
						-	-	-	
12149	X	0.64 2.3 II	F	20 4	U	12750*	-	L	
						12340*	-	L,Y	
12150	X	0.64 2.3 II	F	20 6	U	12750*	-	L	
						12340*	-	L,Y	
12151	X	0.64 2.3 II	F	28 2	U	12750*	-	L	
						12340*	-	L,Y	
12152	X	0.64	M	32	U	-	-	-	PCB
12153	X	0.64	F	32	U	12750*	-	L	
12155	X	0.64	F	16	U	12750*	-	L	
12156	X	0.64	F	16	U	12770	-	L	IDC
12157	X	0.64	M	16	U	-	-	-	PCB
12159	X	1.0 III	M	4	U	12670*	-	L	
12160	X	1.0 III	F	4	U	12690*	-	L	
12161	X	1.0 III 2.3 II	M	8 9	U	12670*	-	L	
						12330*	-	L,Y	
12162	X	1.0 III	F	10	U	12690*	-	L	
12163	X	2.3 II	M	8	S	12430*	-	L,Y	
12164	X	2.3 II	F	8	S	12440*	12590	L,Y	
12165	O	-	-	-	-	-	-	-	
12166	X	1.0 III 2.3 II	F	14 6	U	12690*	-	L	
						12340*	-	L,Y	
12167	X	1.0 III	M	8	U	-	-	-	PCB
12168	X	1.0 III	F	3	S	12720*	-	L	
12169	X	0.64	F	40	U	12750*	-	L	
12170	X	0.64	F	40	U	12770	-	L	IDC

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
12171	X	0.64	M	40	U	-	-	-	PCB
12174	X	1.0 II	F	18	U	24020*	-	L	IDC
12176	O	2.3 II	F	4	S	-	12790*	L,Y	
12177	X	2.3 II	M	4	S	-	-	L,Y	
12179	X	1.0 III	F	42	U	12690*	-	L	
		2.3 II		4		12340*	-	L,Y	
12182	X	0.64	M	12	U	-	-	-	PCB
12183	X	0.64	F	12	U	12750*	-	L	
12184	X	1.0 III	F	30	U	12690*	-	L	
		2.3 II		12		12340*	-	L,Y	
12188	X	2.3 II	F	2	S	12440*	12590	L,Y	
12189	X	1.0 III	M	5	U	12670*	-	L	
12190	X	1.0 III	F	5	U	12690*	-	L	
12191	X	PAI 1	F	2	U	-	-	-	
12192	X	0.64	M	16	U	-	-	-	
12193	X	0.64	M	24	U	-	-	-	
12194	X	1.0 III	M	2	S	12710	-	L	
12195	X	1.0 III	F	2	S	12720*	-	L	
12196	X	D-3	M	3	U	-	-	-	
12197	X	D-3	F	3	U	-	-	-	
12198	X	D-3	M	6	U	-	-	-	
12199	X	D-3	F	6	U	-	-	-	
12200	X	0.64	F	24	U	12750*	-	L	
12202	X	0.64	M	20	U	-	-	-	PCB
		2.3 II		6		-	-	-	
12203	X	0.64	F	20	U	12750*	-	L	
		2.3 II		6		12340*	-	L,Y	
12204	X	1.0 III	M	6	U	12670*	-	L	
12205	X	2.3 II	M	12	U	-	-	-	PCB
12206	X	2.3 II	M	16	U	-	-	-	PCB
12207	X	1.0 III	M	26	U	-	-	-	PCB
		2.3 II		8		-	-	-	
12208	X	1.0 III	M	6	U	-	-	-	PCB
12209	O	1.0 III	F	6	U	12690*	-	L	
12210	X	1.0 III	M	4	U	-	-	-	PCB
12211	O	1.0 III	F	4	U	12690*	-	L	
12212	X	1.0 III	M	4	U	12670*	-	L	
12213	X	0.64	M	40	U	-	-	-	PCB
12214	X	0.64	M	24	U	-	-	-	PCB

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
12215	X	0.64	M	24	U	-	-	-	PCB
12216	X	0.64	M	8	U	-	-	-	PCB
12217	X	0.64	F	8	U	12750*	-	L	
12218	X	PAI 1	M	2	U	-	-	-	
12219	X	PAI 1	F	2	U	-	-	-	
12220	X	0.64	M	8	U	-	-	-	PCB
12221	X	0.64	F	8	U	12750*	-	L	
12222	X	0.64	F	12	U	12750*	-	L	
12223	X	PAI 1	M	2	U	-	-	-	
12224	X	PAI 1	F	2	U	-	-	-	
12225	X	0.64	F	4	U	12750*	-	L	Splash Proof
12226	X	1.0 III 2.3 II	F	6 4	U	12690* 12340*	- -	L L,Y	
12227	X	9.5	M	3	S	-	-	-	
12228	X	9.5	F	3	S	-	-	-	
12230	X	LA	F	1	S	-	-	-	
12231	X	LA	F	1	S	-	-	-	
12232	X	0.64 1.0 IV	M	108 27	U	- -	- -	- -	PCB
12233	X	0.64 2.3 II	M	20 6	U	- -	- -	- -	PCB
12234	X	4.8	M	3	S	12470	-	Y	
12237	X	4.8	F	3	S	12480	-	Y	
12241	X	0.64	F	2	U	12750*	-	L	Splash Proof
12242	X	PAI 1	F	2	U	-	-	-	
12243	X	PAI 1	F	2	U	-	-	-	
12249	X	2.3 II	M	10	U	12330*	-	L,Y	
12250	X	0.64	M	11	U	-	-	-	
12251	X	0.64	F	11	U	12750*	-	L	
12252	X	0.64	M	16	U	-	-	-	
12253	O	PAI 1	F	2	U	-	-	-	
12258	X	0.64	M	20	U	-	-	-	PCB
12259	X	0.64	F	20	U	12750*	-	L	
12260	X	0.64	M	24	U	-	-	-	PCB
12269	X	0.64	M	12	U	-	-	-	PCB
12270	X	0.64	M	24	U	-	-	-	PCB
12271	X	1.0 III 2.3 II	F	20 6	U	12690* 12340*	- -	L L,Y	
12272	X	1.0 III	F	10	U	12690*	-	L	

## HOUSING PART NUMBER LIST

Part No. of Connector Body	Supply	Terminal	Male Female	Cav. No.	Sealing Ability	Part No. of Repair Wire		Sleeve Color	Memo
						160 mm Type	500 mm Type		
90980-						82998-	82998-		
12273	X	1.0 III 2.3 II	F	6 6	U	12690* 12340*	- -	L L,Y	
12274	X	1.0 III 2.3 II	F	18 18	U	12690* 12340*	- -	L L,Y	
12275	X	1.0 III 2.3 II	F	8 24	U	12690* 12340*	- -	L L,Y	
12276	X	1.0 III 2.3 II	F	24 14	U	12690* 12340*	- -	L L,Y	
12277	X	1.0 III 2.3 II	F	10 20	U	12690* 12340*	- -	L L,Y	
12278	X	4.8 1.0 III 2.3 II	F	1 6 18	U	12380 12690* 12340*	- - -	Y L L,Y	
12291	X	1.0 III	M	39	U	-	-	-	PCB
12296	X	0.64	F	3	U	12750*	-	L	


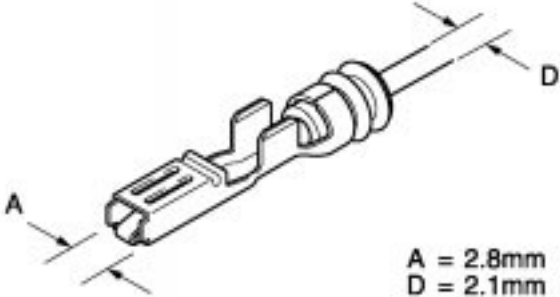
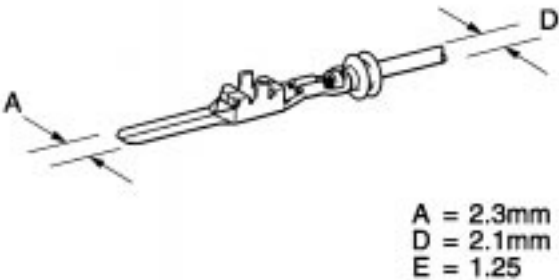
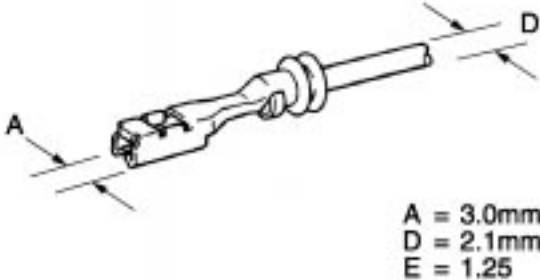
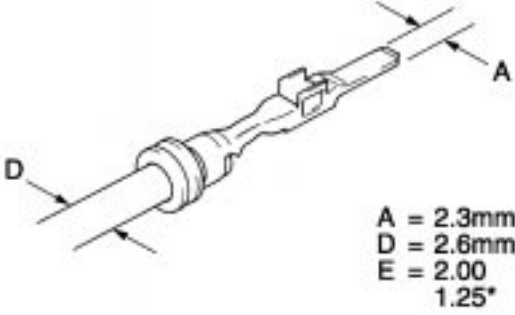
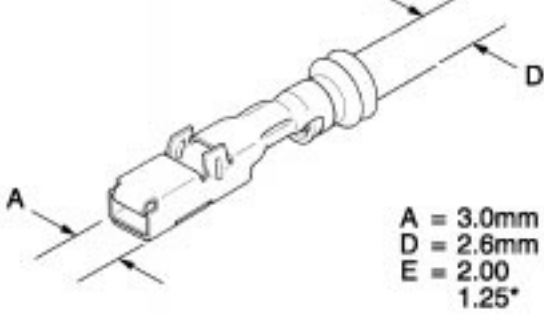
TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE

Repair Wire (Waterproof Type)

Type	<b>1.0II</b>	
	Male	Female
P/N		82998-24060
Type	<b>1.0III</b>	
	Male	Female
	<b>Sleeve : Medium (Blue)</b> 	<b>Sleeve : Medium (Blue)</b> 
P/N	82998-12710	82998-12720 82998-12730*
Type	<b>1.3</b>	
	Male	Female
	<b>Sleeve : Medium (Blue)</b> 	<b>Sleeve : Medium (Blue)</b> 
P/N	82998-12630	82998-12650

F


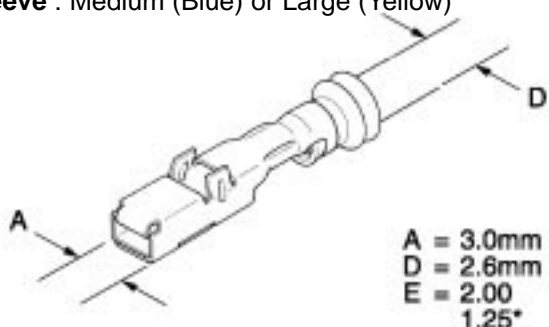
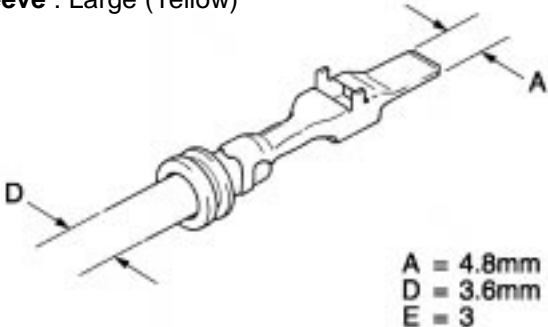
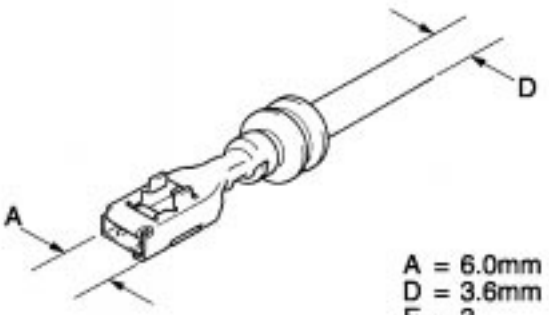

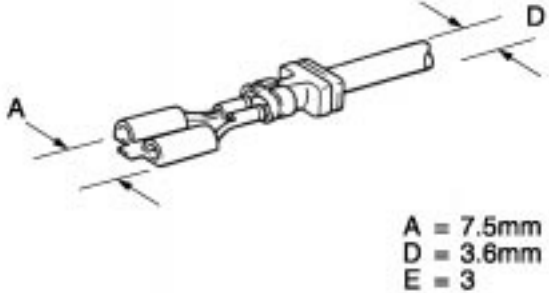
### Repair Wire (Waterproof Type)

Type	<b>1.8</b>	
	Male	Female
		<p>Sleeve : Medium (Blue)</p>  <p>A = 2.8mm D = 2.1mm E = 1.25</p>
P/N		82998-12620
Type	<b>2.3</b>	
	Male	Female
	<p>Sleeve : Medium (Blue)</p>  <p>A = 2.3mm D = 2.1mm E = 1.25</p>	<p>Sleeve : Medium (Blue)</p>  <p>A = 3.0mm D = 2.1mm E = 1.25</p>
P/N	82998-12260 82998-24070*	82998-12270(160mm) 82998-12600(500mm) 82998-24080*
Type	<b>2.3II (6mm Pitch Type)</b>	
	Male	Female
	<p>Sleeve : Medium (Blue) or Large (Yellow)</p>  <p>A = 2.3mm D = 2.6mm E = 2.00 1.25*</p>	<p>Sleeve : Medium (Blue) or Large (Yellow)</p>  <p>A = 3.0mm D = 2.6mm E = 2.00 1.25*</p>
P/N	82998-12430 82998-12450*	82998-12440(160mm) 82998-12590(500mm) 82998-12460*

F


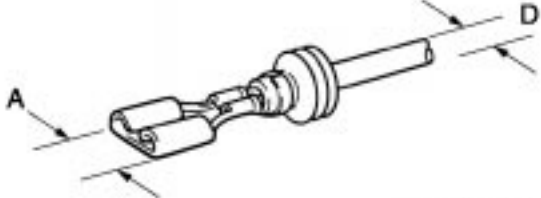
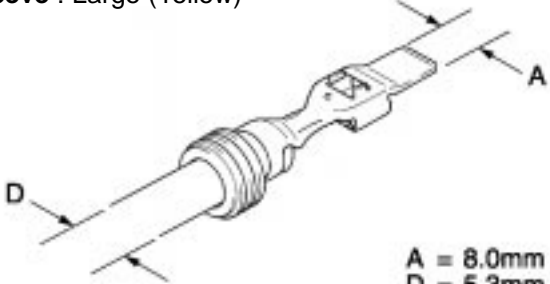
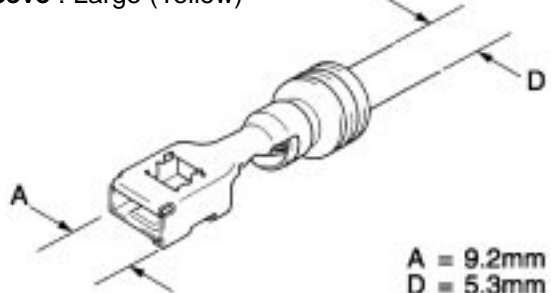

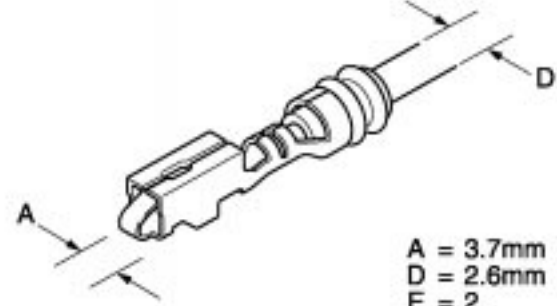
TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE

Repair Wire (Waterproof Type)

Type	<b>2.3II (5mm Pitch Type)</b>	
	Male	Female
		<p>Sleeve : Medium (Blue) or Large (Yellow)</p>  <p>A = 3.0mm D = 2.6mm E = 2.00 1.25*</p>
P/N		82998-12790 82998-12780*
Type	<b>4.8</b>	
	Male	Female
	<p>Sleeve : Large (Yellow)</p>  <p>A = 4.8mm D = 3.6mm E = 3</p>	 <p>A = 6.0mm D = 3.6mm E = 3</p>
P/N	82998-12470	82998-12480
Type	<b>6.3</b>	
	Male	Female
		 <p>A = 7.5mm D = 3.6mm E = 3</p>
P/N		82998-12540

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### Repair Wire (Waterproof Type)


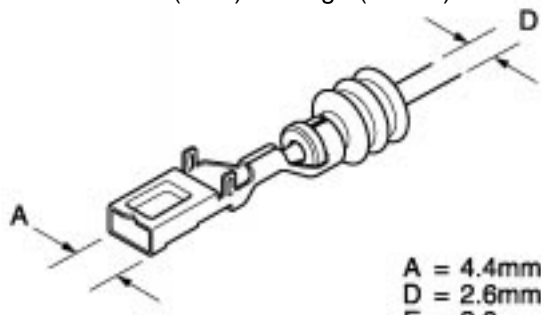
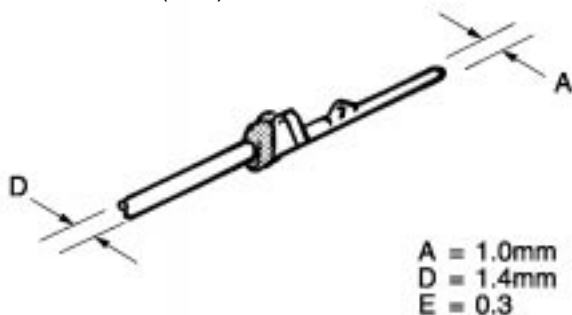
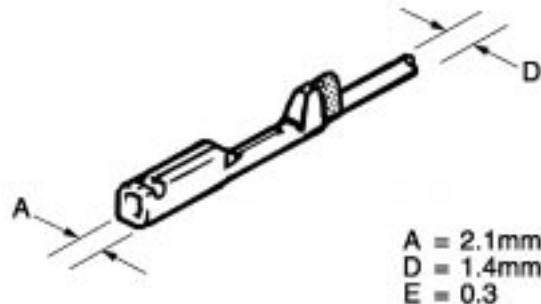
Type	<b>6.3II</b>	
	Male	Female
		<p>Sleeve : Medium (Blue)</p>  <p>A = 7.8mm D = 1.6mm E = 0.5</p>
P/N		82998-24160
Type	<b>8.0</b>	
	Male	Female
	<p>Sleeve : Large (Yellow)</p>  <p>A = 8.0mm D = 5.3mm E = 8</p>	<p>Sleeve : Large (Yellow)</p>  <p>A = 9.2mm D = 5.3mm E = 8</p>
P/N	82998-12490	82998-12500
Type	<b>HEAD LAMP</b>	
	Male	Female
		<p>Sleeve : Medium (Blue) or Large (Yellow)</p>  <p>A = 3.7mm D = 2.6mm E = 2</p>
P/N		82998-24150(160mm) 82998-24190(500mm)

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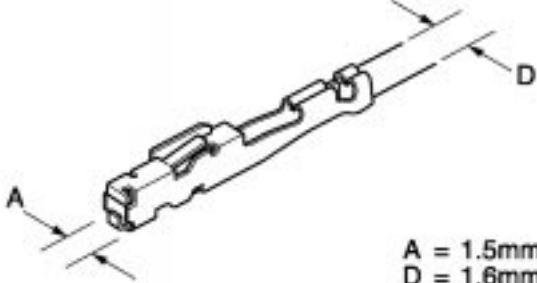

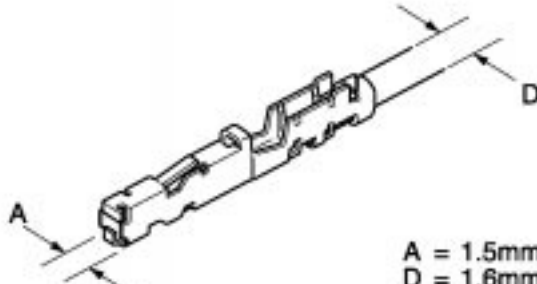

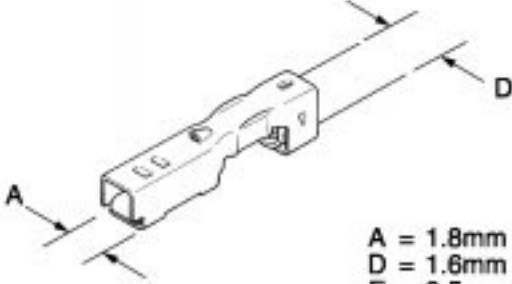
TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE

Repair Wire (Waterproof Type)

Type	HB3, HB4	
	Male	Female
		<p>Sleeve : Medium (Blue) or Large (Yellow)</p>  <p>A = 4.4mm D = 2.6mm E = 2.0</p>
P/N		82998-12550(160mm) 82998-12610(500mm)
Type	TLC	
	Male	Female
	<p>Sleeve : Small (Red)</p>  <p>A = 1.0mm D = 1.4mm E = 0.3</p>	<p>Sleeve : Small (Red)</p>  <p>A = 2.1mm D = 1.4mm E = 0.3</p>
P/N	82998-12280	82998-12290

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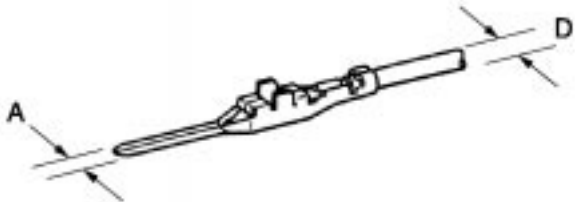


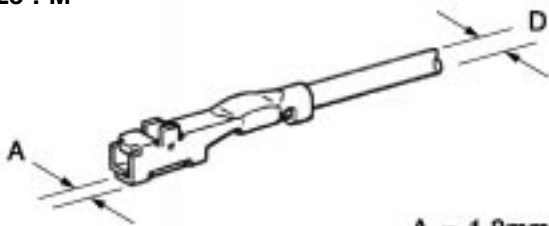
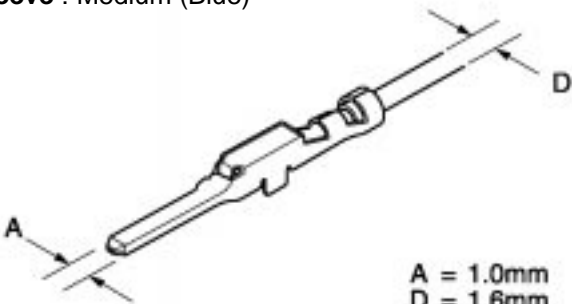
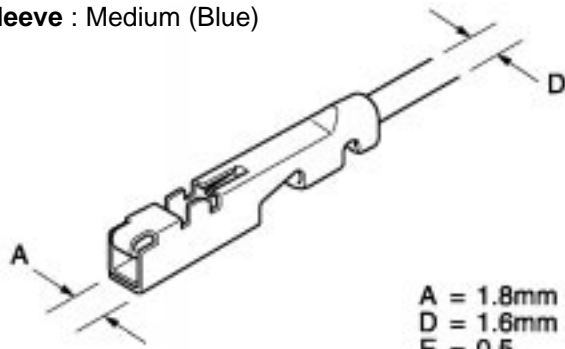
### Repair Wire (Non-waterproof Type)

Type	<b>0.64</b>	
	Male	Female
		<p>Sleeve : Medium (Blue)</p>  <p>A = 1.5mm D = 1.6mm E = 0.5</p>
P/N		82998-12750 82998-12760*
Type	<b>0.64 IDC</b>	
	Male	Female
		<p>Sleeve : Medium (Blue)</p>  <p>A = 1.5mm D = 1.6mm E = 0.5</p>
P/N		82998-12770
Type	<b>1.0</b>	
	Male	Female
		 <p>A = 1.8mm D = 1.6mm E = 0.5</p>
P/N		82998-12310 82998-12320*

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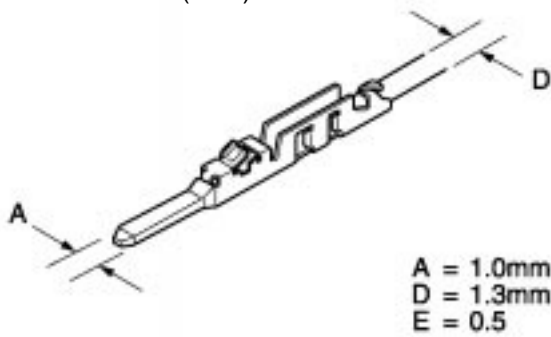
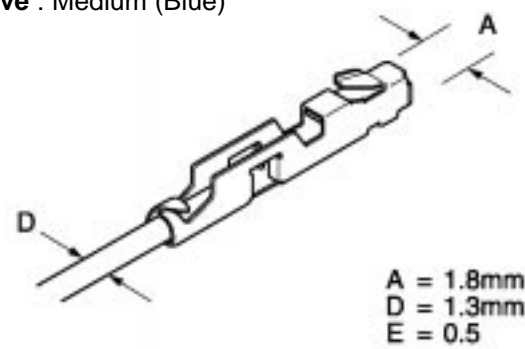

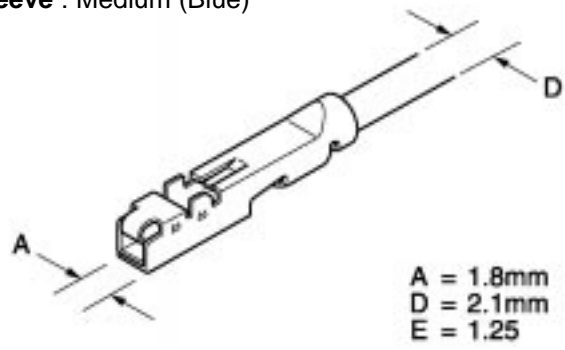
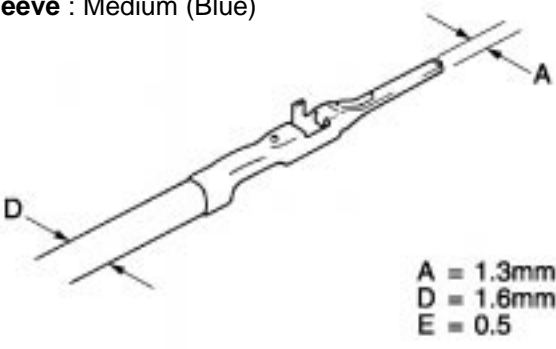
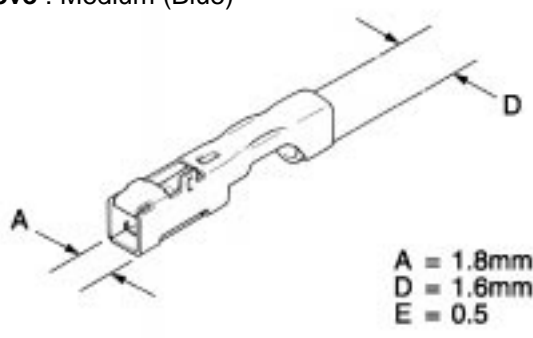
TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE

Repair Wire (Non-waterproof Type)

Type	1.0II	
	Male	Female
	<p>Sleeve : Medium (Blue)</p>  <p>A = 1.0mm D = 1.5mm E = 0.85</p>	<p>Sleeve : Medium (Blue) Size : S</p>  <p>A = 1.8mm D = 1.5mm E = 0.85</p>
P/N	82998-24010	82998-24020 82998-24110*
Type	1.0II	
	Male	Female
	 <p>A = 1.8mm D = 2.1mm E = 1.25</p>	<p>Sleeve : Medium (Blue) Size : M</p>  <p>A = 1.8mm D = 2.1mm E = 1.25</p>
P/N		82998-24120*
Type	1.0III	
	Male	Female
	<p>Sleeve : Medium (Blue)</p>  <p>A = 1.0mm D = 1.6mm E = 0.5</p>	<p>Sleeve : Medium (Blue)</p>  <p>A = 1.8mm D = 1.6mm E = 0.5</p>
P/N	82998-12670 82998-12680*	82998-12690 82998-12700*

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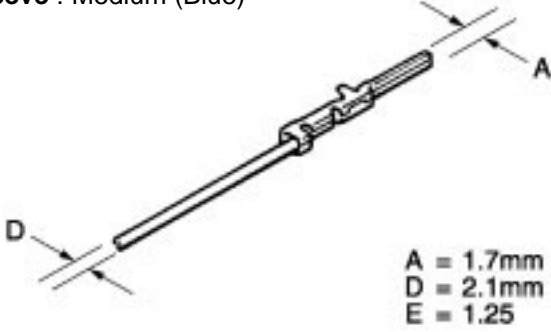
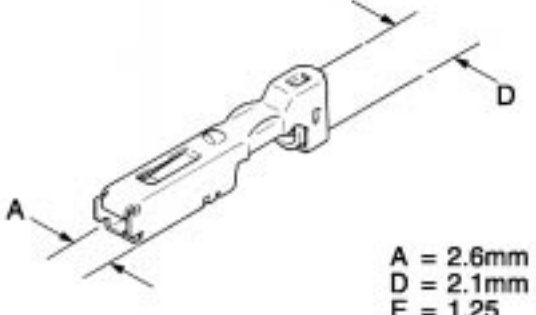
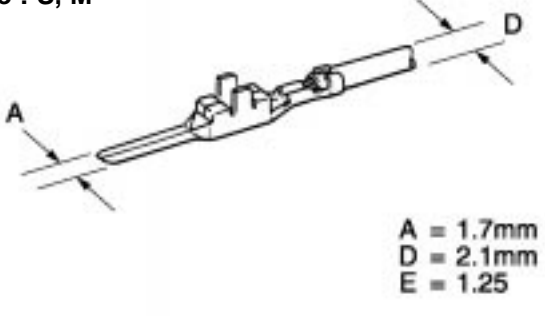
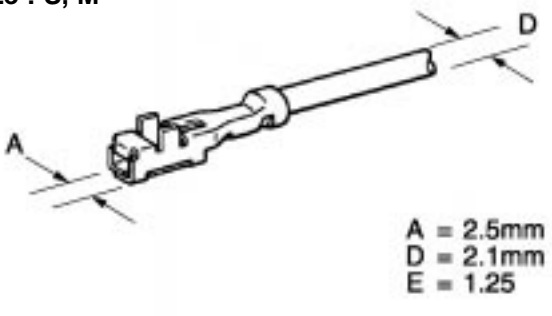
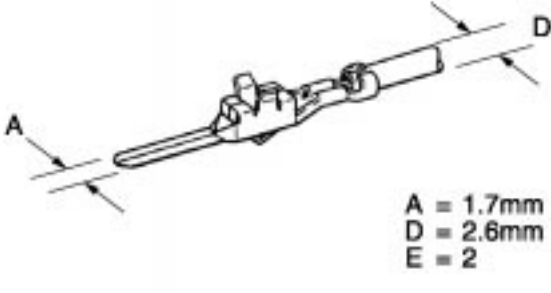
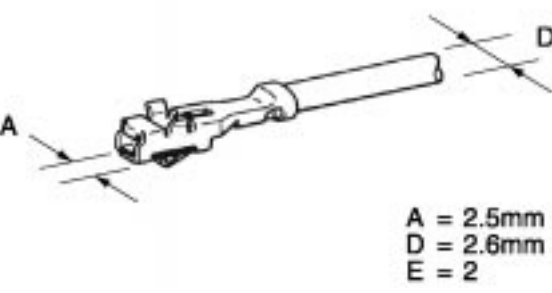
### Repair Wire (Non-waterproof Type)

Type	1.0III IDC	
	Male	Female
	<p>Sleeve : Medium (Blue)</p>  <p>A = 1.0mm D = 1.3mm E = 0.5</p>	<p>Sleeve : Medium (Blue)</p>  <p>A = 1.8mm D = 1.3mm E = 0.5</p>
P/N	82998-12660	82998-12640
Type	1.0IV	
	Male	Female
		<p>Sleeve : Medium (Blue)</p>  <p>A = 1.8mm D = 2.1mm E = 1.25</p>
P/N		82998-12740
Type	1.3	
	Male	Female
	<p>Sleeve : Medium (Blue)</p>  <p>A = 1.3mm D = 1.6mm E = 0.5</p>	<p>Sleeve : Medium (Blue)</p>  <p>A = 1.8mm D = 1.6mm E = 0.5</p>
P/N	82998-12410	82998-12420

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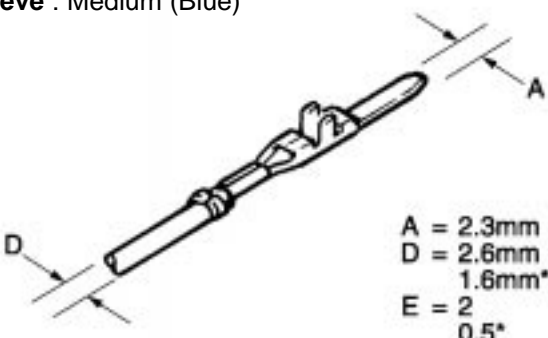
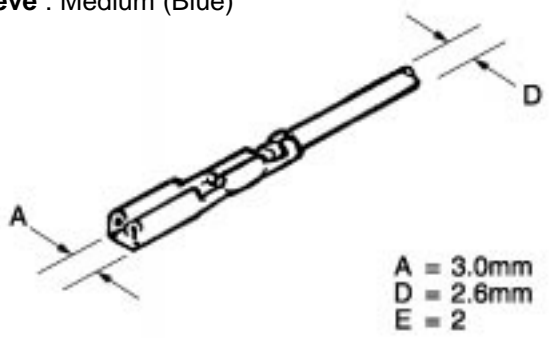
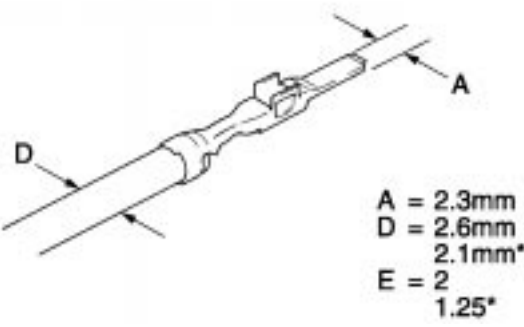
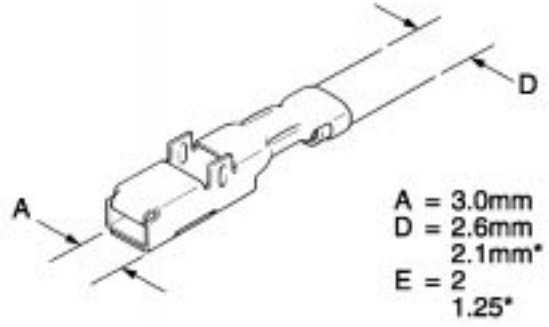

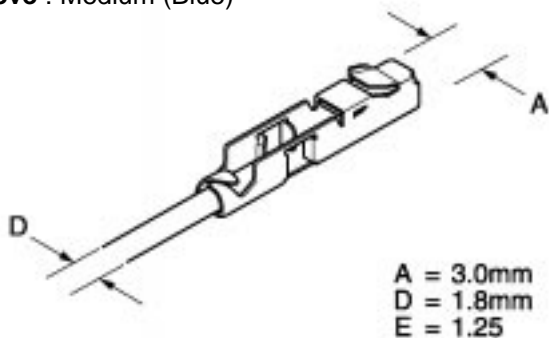
TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE

Repair Wire (Non-waterproof Type)

Type	<b>1.8</b>	
	Male	Female
	<p><b>Sleeve : Medium (Blue)</b></p>  <p>A = 1.7mm D = 2.1mm E = 1.25</p>	<p><b>Sleeve : Medium (Blue)</b></p>  <p>A = 2.6mm D = 2.1mm E = 1.25</p>
P/N	82998-12180	82998-12190 82998-12300*
Type	<b>1.8II</b>	
	Male	Female
	<p><b>Sleeve : Medium (Blue) or Large (Yellow)</b> <b>Size : S, M</b></p>  <p>A = 1.7mm D = 2.1mm E = 1.25</p>	<p><b>Sleeve : Medium (Blue) or Large (Yellow)</b> <b>Size : S, M</b></p>  <p>A = 2.5mm D = 2.1mm E = 1.25</p>
P/N	82998-24090 82998-24130*	82998-24100
Type	<b>1.8II</b>	
	Male	Female
	<p><b>Sleeve : Medium (Blue) or Large (Yellow)</b> <b>Size : L</b></p>  <p>A = 1.7mm D = 2.6mm E = 2</p>	<p><b>Sleeve : Medium (Blue) or Large (Yellow)</b> <b>Size : L</b></p>  <p>A = 2.5mm D = 2.6mm E = 2</p>
P/N	82998-24030	82998-24040

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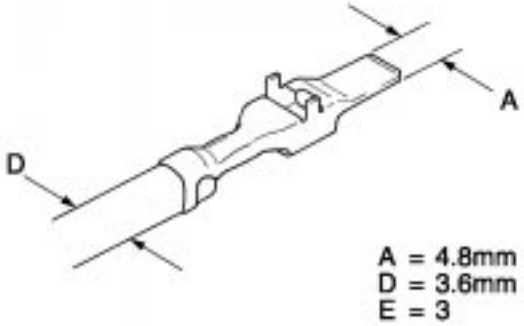
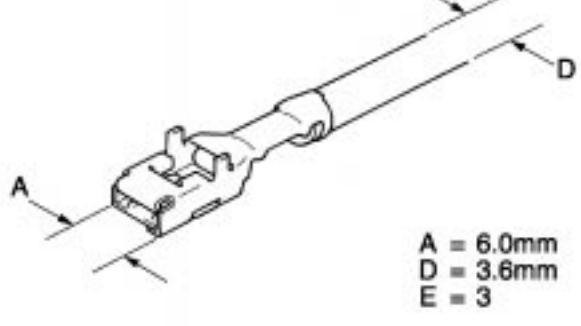
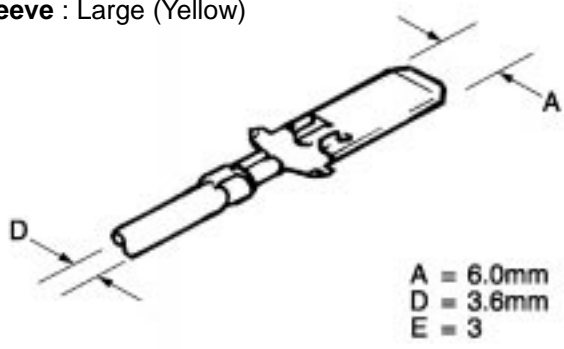
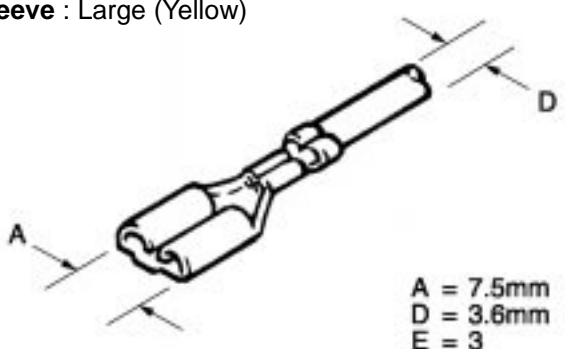

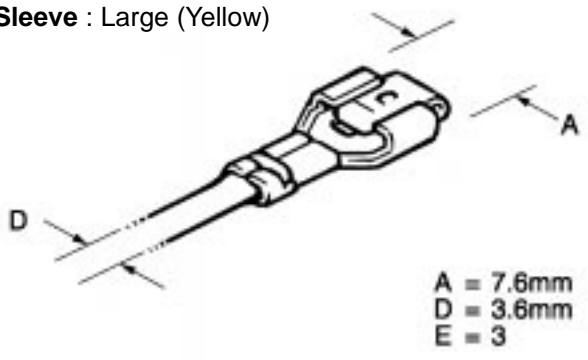
### Repair Wire (Non-waterproof Type)

Type	<b>2.3</b>	
	Male	Female
	<p><b>Sleeve : Medium (Blue)</b></p>  <p>A = 2.3mm D = 2.6mm E = 1.6mm* E = 2 0.5*</p>	<p><b>Sleeve : Medium (Blue)</b></p>  <p>A = 3.0mm D = 2.6mm E = 2</p>
P/N	82998-12160 82998-24050*	82998-12170
Type	<b>2.3II</b>	
	Male	Female
	<p><b>Sleeve : Medium (Blue) or Large (Yellow)</b></p>  <p>A = 2.3mm D = 2.6mm E = 2.1mm* E = 2 1.25*</p>	<p><b>Sleeve : Medium (Blue) or Large (Yellow)</b></p>  <p>A = 3.0mm D = 2.6mm E = 2.1mm* E = 2 1.25*</p>
P/N	82998-12330 82998-12350*	82998-12340 82998-12360*
Type	<b>2.3II IDC</b>	
	Male	Female
		<p><b>Sleeve : Medium (Blue)</b></p>  <p>A = 3.0mm D = 1.8mm E = 1.25</p>
P/N		82998-24220

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TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE

Repair Wire (Non-waterproof Type)

Type	<b>4.8</b>	
	Male	Female
	<p>Sleeve : Large (Yellow)</p>  <p>A = 4.8mm D = 3.6mm E = 3</p>	<p>Sleeve : Large (Yellow)</p>  <p>A = 6.0mm D = 3.6mm E = 3</p>
P/N	82998-12370	82998-12380
Type	<b>6.3</b>	
	Male	Female
	<p>Sleeve : Large (Yellow)</p>  <p>A = 6.0mm D = 3.6mm E = 3</p>	<p>Sleeve : Large (Yellow)</p>  <p>A = 7.5mm D = 3.6mm E = 3</p>
P/N	82998-12050	82998-12060(160mm) 82998-12580(500mm)
Type	<b>6.3</b>	
	Male	Female
		<p>Sleeve : Large (Yellow)</p>  <p>A = 7.6mm D = 3.6mm E = 3</p>
P/N		82998-12070

### Repair Wire (Non-waterproof Type)


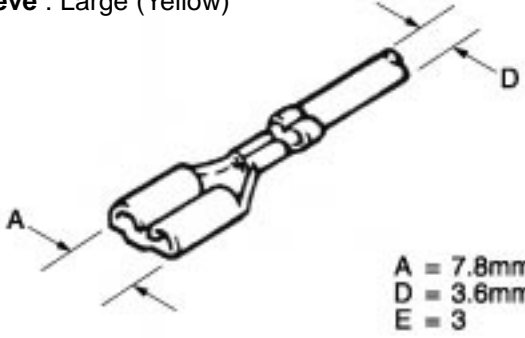
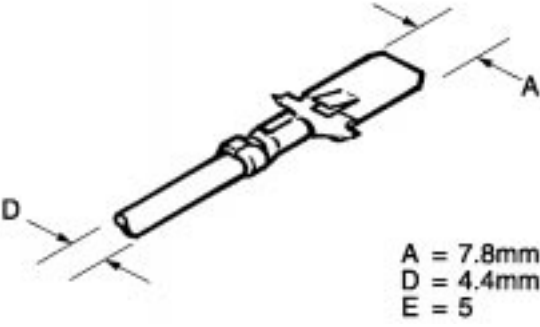
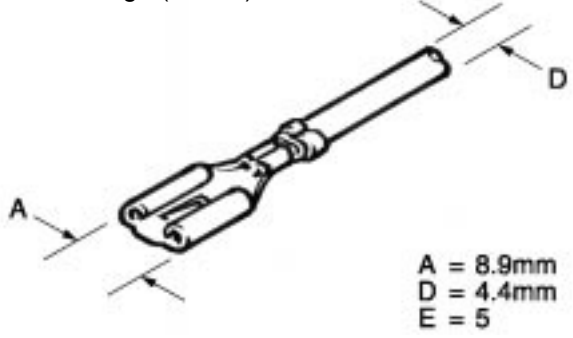
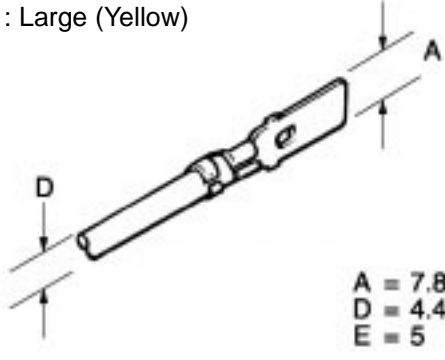
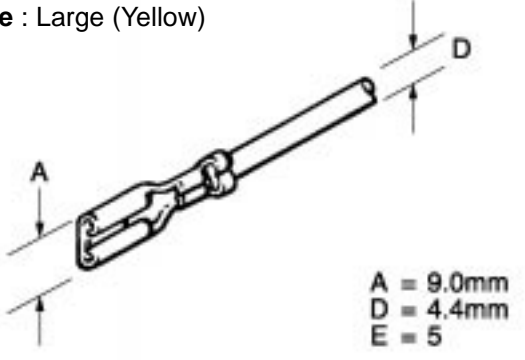
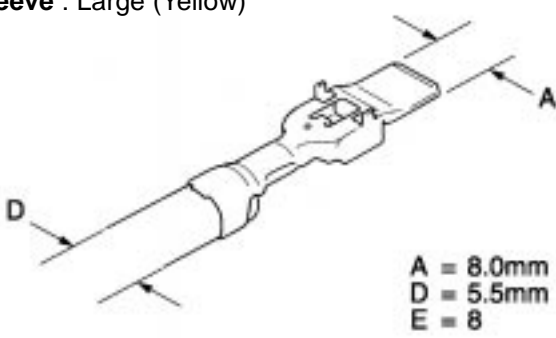
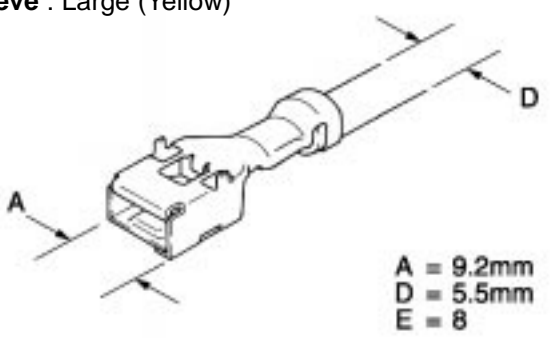

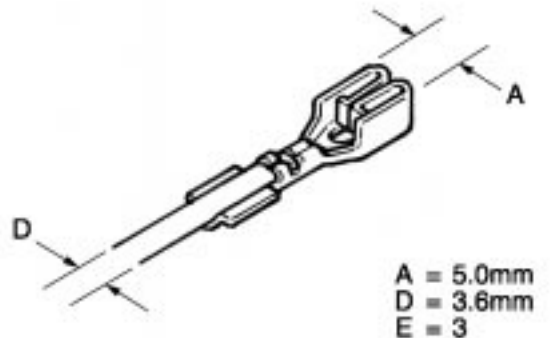
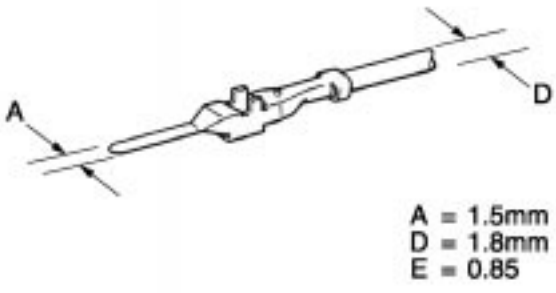
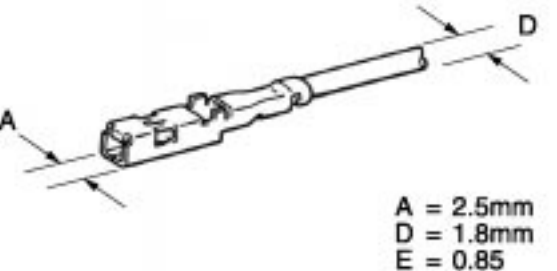
Type	<b>6.3II</b>	
	Male	Female
		<p>Sleeve : Large (Yellow)</p>  <p>A = 7.8mm D = 3.6mm E = 3</p>
P/N		82998-24170
Type	<b>7.7 Terminal Lance</b>	
	Male	Female
	<p>Sleeve : Large (Yellow)</p>  <p>A = 7.8mm D = 4.4mm E = 5</p>	<p>Sleeve : Large (Yellow)</p>  <p>A = 8.9mm D = 4.4mm E = 5</p>
P/N	82998-12010	82998-12020
Type	<b>7.7 Housing Lance</b>	
	Male	Female
	<p>Sleeve : Large (Yellow)</p>  <p>A = 7.8mm D = 4.4mm E = 5</p>	<p>Sleeve : Large (Yellow)</p>  <p>A = 9.0mm D = 4.4mm E = 5</p>
P/N	82998-12030	82998-12040



TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE

**Repair Wire (Non-waterproof Type)**

Type	<b>8.0</b>	
	Male	Female
	<p>Sleeve : Large (Yellow)</p>  <p>A = 8.0mm D = 5.5mm E = 8</p>	<p>Sleeve : Large (Yellow)</p>  <p>A = 9.2mm D = 5.5mm E = 8</p>
P/N	82998-12390	82998-12400
Type	<b>BLADE FUSE</b>	
	Male	Female
		 <p>A = 5.0mm D = 3.6mm E = 3</p>
P/N		82998-12140
Type	<b>C-Type</b>	
	Male	Female
	 <p>A = 1.5mm D = 1.8mm E = 0.85</p>	 <p>A = 2.5mm D = 1.8mm E = 0.85</p>
P/N	82998-12560	82998-12570

### Repair Wire (Non-waterproof Type)


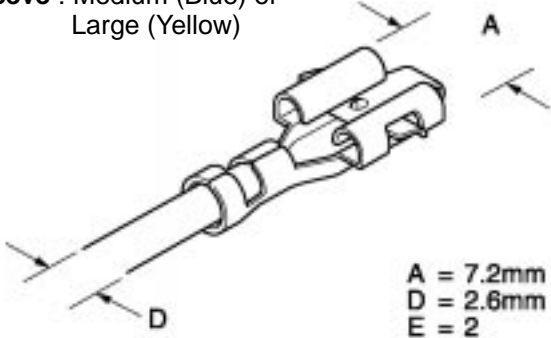

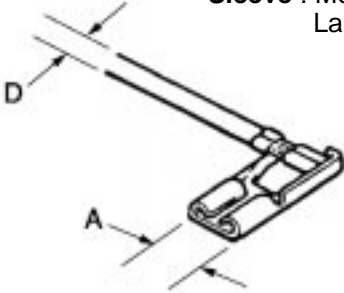

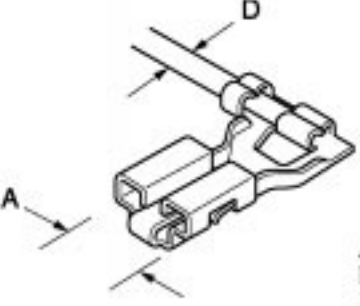
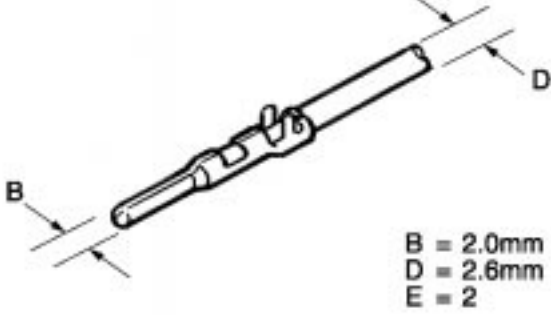
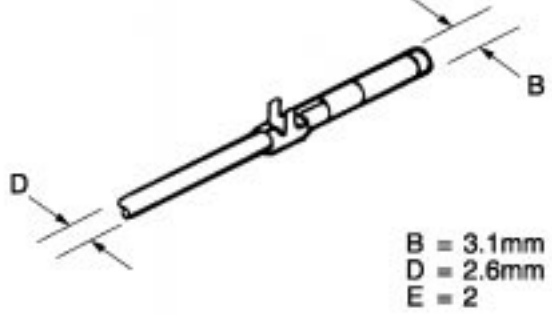

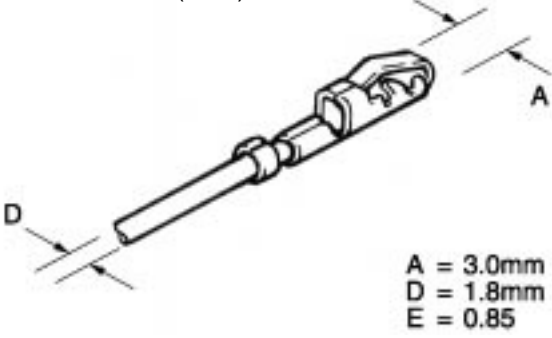

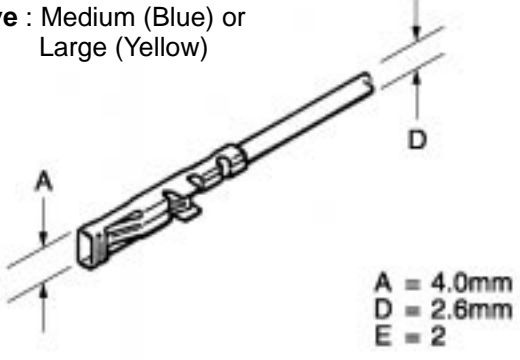
Type	FOG-LP	
	Male	Female
		<p>Sleeve : Medium (Blue) or Large (Yellow)</p>  <p>A = 7.2mm D = 2.6mm E = 2</p>
P/N		82998-24210
Type	FTC	
	Male	Female
		<p>Sleeve : Medium (Blue) or Large (Yellow)</p>  <p>A = 6.2mm D = 2.6mm E = 2</p>
P/N		82998-12510
Type	HEAD LAMP	
	Male	Female
		<p>Sleeve : Medium (Blue) or Large (Yellow)</p>  <p>A = 8.9mm D = 2.6mm E = 2.0</p>
P/N		82998-24140(160mm) 82998-24200(500mm)

TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE

**Repair Wire (Non-waterproof Type)**

Type	LAC	
	Male	Female
	<p>Sleeve : Medium (Blue) or Large (Yellow)</p>  <p>B = 2.0mm D = 2.6mm E = 2</p>	<p>Sleeve : Medium (Blue) or Large (Yellow)</p>  <p>B = 3.1mm D = 2.6mm E = 2</p>
P/N	82998-12100	82998-12110
Type	MFPC	
	Male	Female
		<p>Sleeve : Medium (Blue)</p>  <p>A = 3.0mm D = 1.8mm E = 0.85</p>
P/N		82998-12150
Type	MIC	
	Male	Female
		<p>Sleeve : Medium (Blue) or Large (Yellow)</p>  <p>A = 4.0mm D = 2.6mm E = 2</p>
P/N		82998-12120

### Repair Wire (Non-waterproof Type)

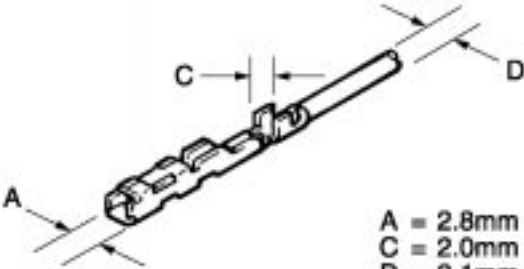
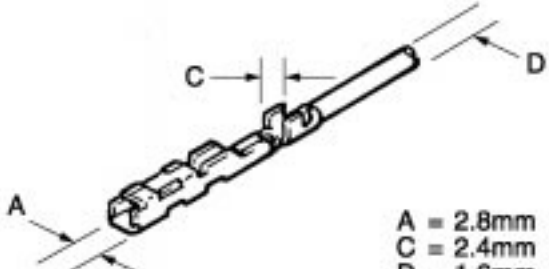

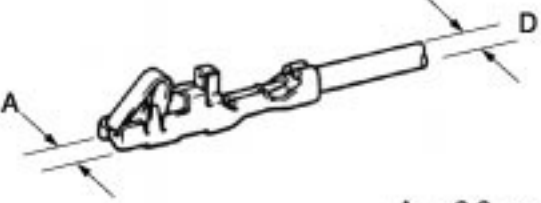

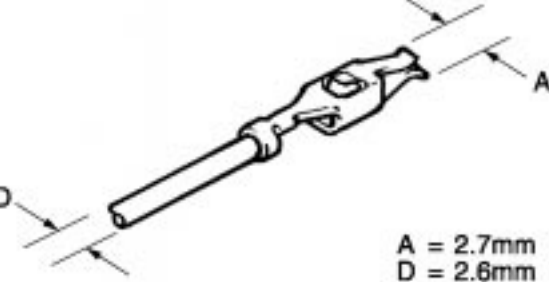
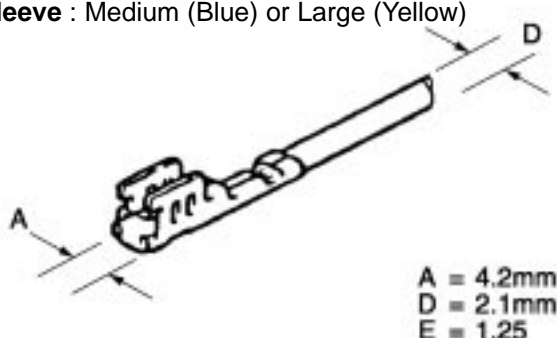
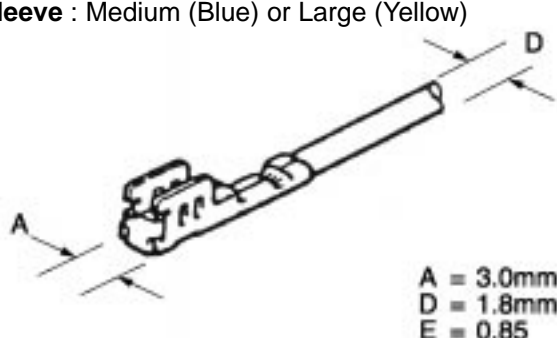
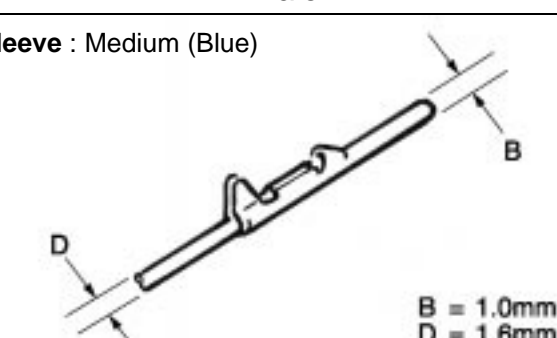
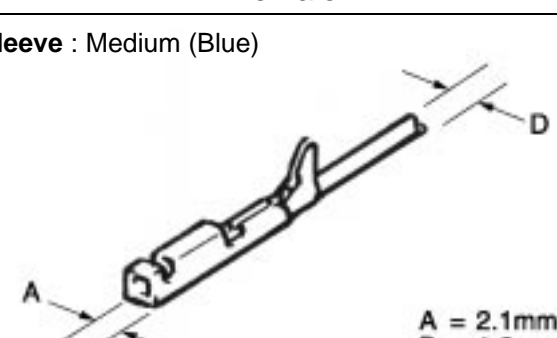
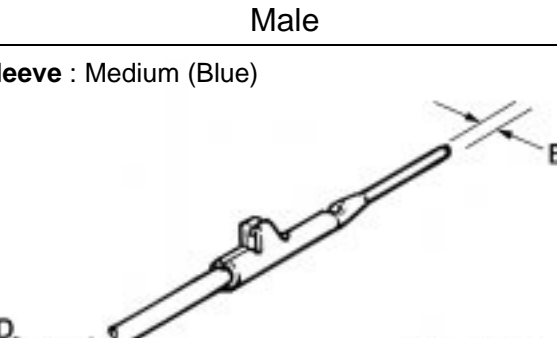
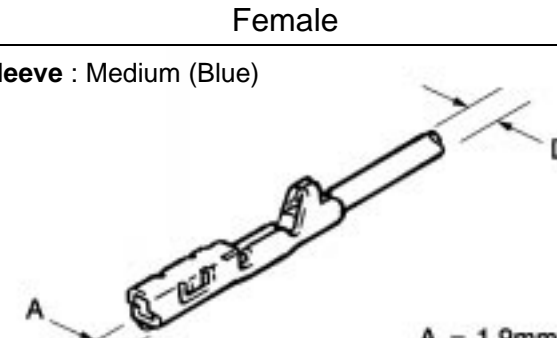
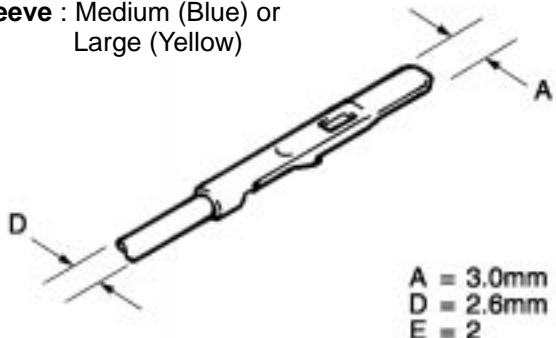
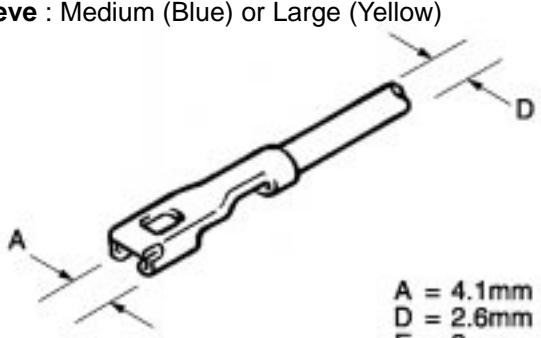
Type	PULSE LOCK	
	Female (Power)	Female (Signal)
	 <p>A = 2.8mm C = 2.0mm D = 2.1mm E = 1.25</p>	 <p>A = 2.8mm C = 2.4mm D = 1.6mm E = 1.25</p>
P/N	82998-12200	82998-12210
Type	SFPC	
	Male	Female
		<p>Sleeve : Medium (Blue)</p>  <p>A = 2.2mm D = 1.6mm E = 0.5</p>
P/N		82998-24180
Type	SL	
	Male	Female
		<p>Sleeve : Medium (Blue) or Large (Yellow)</p>  <p>A = 2.7mm D = 2.6mm E = 2</p>
P/N		82998-12130

TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE

Repair Wire (Non-waterproof Type)

Type	SP	
	Female (Power)	Female (Signal)
	<p>Sleeve : Medium (Blue) or Large (Yellow)</p>  <p>A = 4.2mm D = 2.1mm E = 1.25</p>	<p>Sleeve : Medium (Blue) or Large (Yellow)</p>  <p>A = 3.0mm D = 1.8mm E = 0.85</p>
P/N	82998-12520	82998-12530
Type	TLC	
	Male	Female
	<p>Sleeve : Medium (Blue)</p>  <p>B = 1.0mm D = 1.6mm E = 0.5</p>	<p>Sleeve : Medium (Blue)</p>  <p>A = 2.1mm D = 1.6mm E = 0.5</p>
P/N	82998-12220	82998-12230
Type	TNS	
	Male	Female
	<p>Sleeve : Medium (Blue)</p>  <p>B = 1.0mm D = 1.6mm E = 0.5</p>	<p>Sleeve : Medium (Blue)</p>  <p>A = 1.9mm D = 1.6mm E = 0.5</p>
P/N	82998-12240	82998-12250

### Repair Wire (Non-waterproof Type)

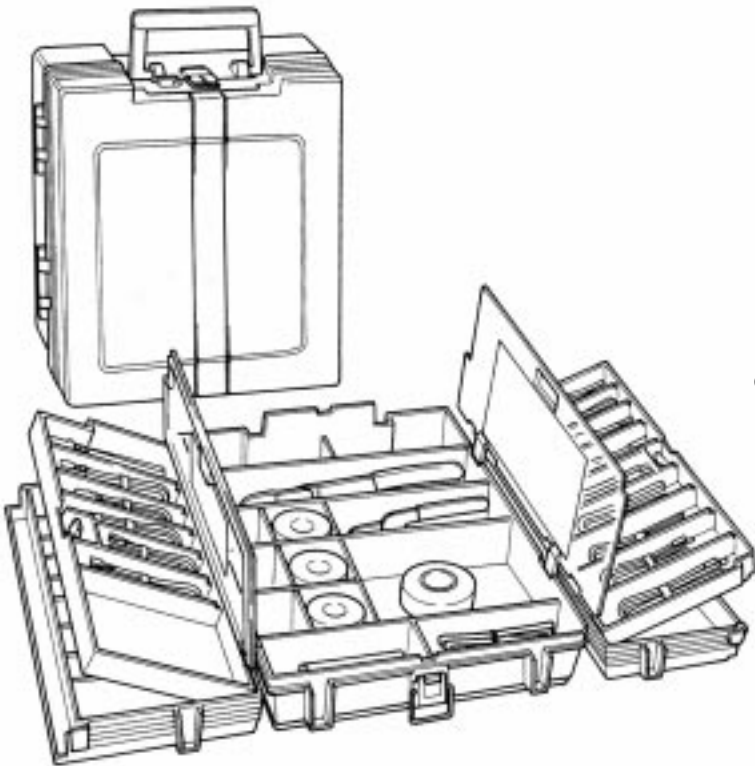
Type	TODC	
	Male	Female
	<p><b>Sleeve :</b> Medium (Blue) or Large (Yellow)</p>  <p>A = 3.0mm D = 2.6mm E = 2</p>	<p><b>Sleeve :</b> Medium (Blue) or Large (Yellow)</p>  <p>A = 4.1mm D = 2.6mm E = 2</p>
P/N	82998-12080	82998-12090

APPENDIX-WIRE HARNESS REPAIR KIT WITH CASE

WIRE HARNESS REPAIR KIT WITH CASE (REFERENCE ONLY)

We would like to recommend to you use of the "Wire Harness Repair Kit with the Case" according to your after service market demand.

Example:



[portable type]

or



[stationary type]



Remark: This kind of kit is not available from Toyota Motor Corporation.

**REPORTING OF WIRE HARNESS PROBLEM**

It is more difficult to understand the cause of wire harness problems and to make production improvements, due to the number of wire harness routings and connectors and their wide scope of use.

The position of the problem occurrence and the problem cause will be very clear if you proceed with wire harness/connector repairs.

We request that when you perform repairs, you fill in the attached "WIRE HARNESS/CONNECTOR PROBLEM CHECK SHEET" and send it to your distributor.

Toyota Motor Corporation will be able to make production improvements more quickly and surely based on the results of the above mentioned reports (Check Sheets).



APPENDIX-REPORTING OF WIRE HARNESS PROBLEM

**WIRE HARNESS/CONNECTOR PROBLEM CHECK SHEET** page 1/3

Please use the TOYOTA ELECTRICAL WIRING DIAGRAM (EWD) manual to answer this questionnaire accurately.

Dealer Name \_\_\_\_\_ Dealer Code \_\_\_\_\_

Full Model Code \_\_\_\_\_ Frame No. \_\_\_\_\_

P/D \_\_\_\_\_ / \_\_\_\_\_ km-reading/Mileage \_\_\_\_\_ Date of Problem \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Customer Complaint: \_\_\_\_\_

Electrical Component with Problem: \_\_\_\_\_

Condition:  Intermittent operation  Inoperative  Others

Symptom:  Short  Open circuit  Moisture

Others (Eg.Rattle,Noise etc. - Please proceed to "Box B" on next page.)

**CONNECTOR PROBLEM:**

Please fill in the required information in the brackets and check the appropriate box.

EWD page ( )  
CONNECTOR NO.( )

TERMINAL

Male  Female

PIN No. ( )  
WIRE COLOR ( )

CONNECTOR BODY

Male  Female

TERMINAL MISSING (Terminal Coming off)

TERMINAL BROKEN

TERMINAL BENT (Male)

TERMINAL EXPANDED (Female)

WIRE POORLY CRIMPED AT TERMINAL

CORROSION, RUST, MOISTURE

POOR CONTACT

OTHERS ( )

NOT CONNECTED/HALF CONNECTED

BROKEN CONNECTOR

BROKEN LOCKING CLIP OF CONNECTOR

OTHERS ( )

NON-WATERPROOF TYPE

WATERPROOF TYPE

WATER ENTERING FROM:

SEAL PACKING  WIRE HARNESS

TERMINAL PACKING  UNCLEAR, OTHERS

BROKEN LOCKING CLIP OF CONNECTOR

TERMINAL LOCKING CLIP MISSING

TERMINAL RETAINER BROKEN

SECONDARY LOCKING PLATE MISSING

OTHERS; ( )

Please refer to Fig. 1

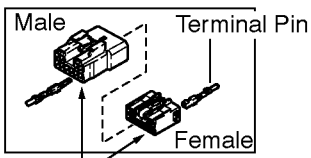
BROKEN LOCKING CLIP OF CONNECTOR

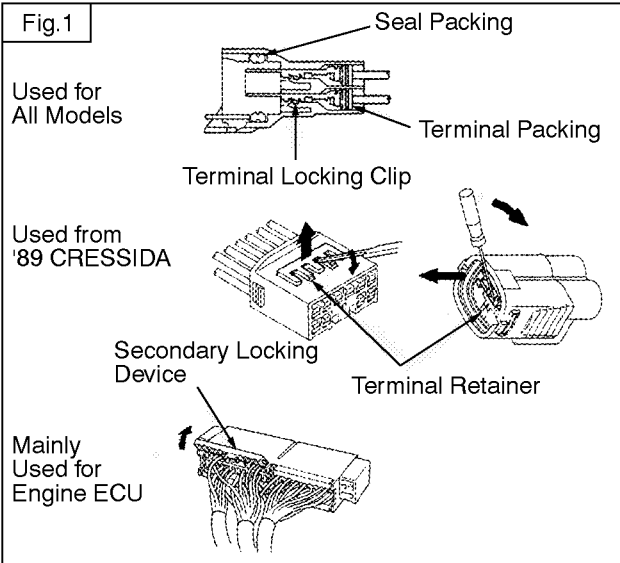
TERMINAL LOCKING CLIP MISSING

TERMINAL RETAINER BROKEN

SECONDARY LOCKING PLATE MISSING

OTHERS; ( )





G

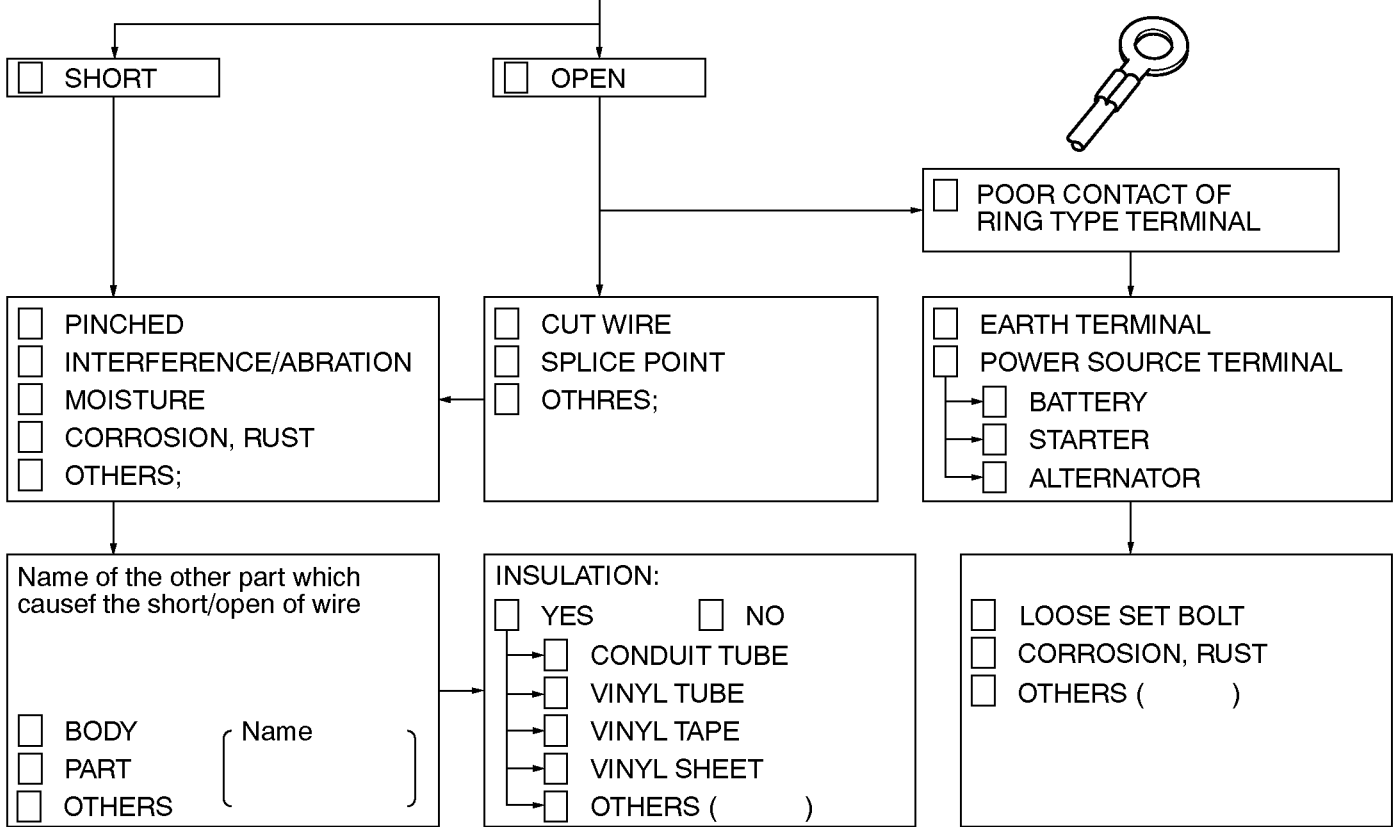
**WIRE HARNESS PROBLEM:**

Please fill in the required information in the brackets and check the appropriate box.

E.W.D Page (                      )

Problem occurred between { \*CONNECTOR NO.A (                      )  
 PIN NO. (                      )  
 WIRE COLOR (                      ) } and { CONNECTOR NO.B (                      )  
 PIN NO. (                      )  
 WIRE COLOR (                      ) }

\* The problem indicated below occurred at a distance of (                      mm) from connector A (                      )



Note: If possible, attach an illustration or photo to show the part causing the short or open, and the position of the wire and the other part. This will help to make the cause of the problem clear and help us to take prompt action.

**Box B**

If you checked the "Others" box in the "Symptom" section on page 3-1, please describe:

Symptom: \_\_\_\_\_

Condition: \_\_\_\_\_

Related Wire Harness or Connector; \_\_\_\_\_

Name or Part NO.: \_\_\_\_\_

Location: \_\_\_\_\_

APPENDIX-REPORTING OF WIRE HARNESS PROBLEM

REPAIR:

1. Please identify repair method:

Troubleshooting methods

WIRING DIAGRAM

VOLTMETER: ANALOG \_\_\_\_\_ , DIGITAL \_\_\_\_\_

2. Please check one box and fill in prethesis:

REPLACE WIRE HARNESS

REPLACE CONNECTOR OR TERMINAL

REPAIR TERMINAL

OTHERS (            )

WIRE HARNESS TOOLS

CRIMPING PLIERS

PICK

OTHERS (            )

SOLDER CONNECTION

3. Please attach a copy of the TOYOTA ELECTRICAL WIRING DIAGRAM for the vehicle repaired:

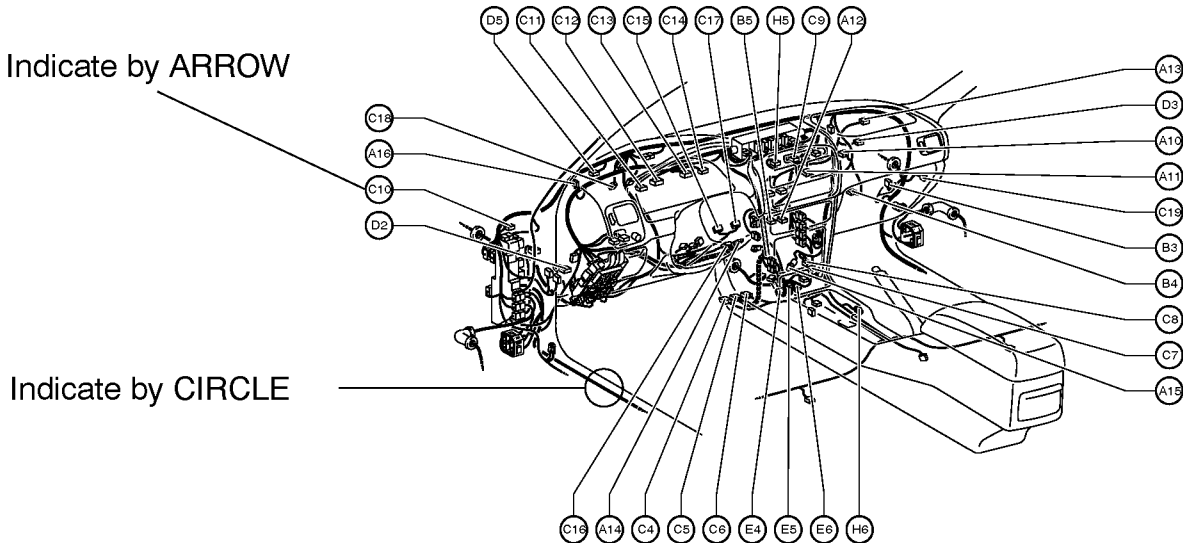
Indicate the affected connector number by arrow, or circle and identify the affected wire harness.

EXAMPLE: COROLLA (ZZE 110)

Condition: Engine does not start

Cause: Connector pin backed out from female connector at clutch start switch

Component: Clutch start switch inoperation



## Waterproof Type [1]

(Cont. next page)

	1	2			3		4	5	6	7	8	9	10	11
1.0														
1.0 III		M:11863		F:11856										
1.3		M:11188 F:11189				M:11169 F:11170		M:11063 F:11065	M:11181 F:11182		M:11171 F:11172		M:11191 F:11192	M:11173 F:11174
								M:11064 F:11066						
1.8		F:10737						F:10711						
		F:11062												
2.3		M:10495 F:10496	M:10580		F:10609			M:10475 F:10476		M:10650				
		F:10474	M:10592		F:10532			M:10590						
		M:10575	F:10598	F:10572				M:10648						
2.3 II	M:10892 F:10893	M:10842 F:10843	M:11486 F:11019	M:11247 F:11248	F:11207	M:11015 F:11016	F:11143	M:10868 F:10869	M:11078 F:11077	M:10987 F:10988	M:10930 F:10931	M:10890 F:10891	F:11231	
	M:11006 F:11007	M:10886 F:10887	M:11029 F:11030	M:11272 F:11273	F:11235	M:11131 F:11132	F:11145	M:10941 F:10942	F:11024	M:11033 F:11034		M:10890 F:11190		
	M:11270 F:11271	M:10898 F:10899	M:11137 F:11038	F:10974	F:11246	M:11244 F:11245	F:11261	M:11027 F:11028	F:11049	M:11193 F:11194		M:10896 F:10897		
	F:11166	M:10900 F:10901	M:11050 F:11051	F:11025	F:11250	M:11295 F:11245	F:11294	M:11122 F:11037	F:11232	M:11196 F:11197				
	F:11243	M:11072 F:10923	M:11069 F:11070	F:11068	F:11255	F:10834	F:11349	M:11177 F:11178	F:11317	M:11289 F:11290				
	F:11363	M:10959 F:10947	M:11073 F:11075	F:11140	F:11285	F:10845	M:11348	M:11291 F:11292	F:11599	F:10854				
	F:11428	M:10948 F:10949	M:11074 F:11075	F:11149	F:12028	F:10902		F:10943		F:11144				
	F:11252	M:11002 F:11003	M:11141 F:11142	F:11153		F:10919		F:11150		F:11858				
		M:11004 F:11005	M:11155 F:11156	F:11154		F:10981		F:11152						
		M:11008 F:11009	M:11168 F:11162	F:11163		F:11020								

M : Male F : Female

**Waterproof Type [1] (Cont'd)**

	12	15	40	80										
1.0			F:11215	F:11214										
1.0 III														
1.3	F:11698	M:11088 F:11089												
1.8														
2.3														
2.3 II	M:11086 F:11087													
	F:11151													

M : Male      F : Female



## Waterproof Type [2]

	1	2	3	4	5	6	8	9	10	11	23	34
4.8	M:10982 F:10983	M:10927 F:10928	M:10840 F:10841	M:10989 F:10990								
	F:11400	F:11237	M:10944 F:10841	M:11035 F:11036								
	M:10246 F:10247	M:10156 F:10157	M:10347 F:10249									
6.3	M:10114 F:10115											
7.7	M:10836 F:10837	M:10838 F:10839										
	M:11183 F:11184	M:11031 F:11032										
HB3		F:11095	F:11659									
HB4		F:11096	F:11660									
PIN		M:11945										
TLC			F:10554	M:10577								
TODC	M:10240 F:10241		M:10244	F:10353								
1.0 III+4.8												F:12020 F:12021
2.3+6.3								F:10686				
2.3 II+4.8			M:11160 F:11161	M:10749 F:10844	M:10945 F:10946	F:10939	M:10894 F:10895	F:11643	F:11332	M:11239		
				F:10940	M:11021 F:11022			F:11784				
					M:11412 F:11413							
2.3 II+6.3 II											F:11195	
											F:11323	
2.3 II+8.0							M:11241 F:11242					
4.8+8.0			M:11044 F:11045	M:11138 F:11139								

M : Male F : Female

Non-waterproof Type [1]

(Cont. next page)

	1	2		3	4	5	6		7	8		9	10	11
1.0														
1.0 II														
1.0 III		M:11967 F:11919				F:11988 F:11921							F:11924	
						F:11909							F:11948	
1.3		M:11211 F:11212			M:11052 F:11053	M:11186 F:11187	F:11319	F:11616		F:11165	M:11532 F:11533	M:11623	F:11450	F:11041
		M:11368 F:11369			F:11471	F:11107					F:10630		F:11642	F:11083
		F:11436				F:11494							F:11657	
1.8														
1.8 II														
2.3		M:10437 F:10355			M:10573 F:10365	F:10504		M:10384 F:10414	F:10672				F:10322	
						F:10601							F:10669	
2.3 II		M:10870 F:10871	M:10824 F:10825	M:10905 F:10906	F:11080	M:10907 F:10908	M:10794 F:10795	M:10796 F:10797	F:10957	M:11528 F:11529	M:10798 F:10799	M:11534 F:11535	M:10800 F:10801	M:10829 F:10830
		M:11026 F:10871	M:10833 F:10825	M:10934 F:10935	F:11098	F:11071	M:10858 F:10795	M:11110 F:10797	F:10964				M:11102 F:10997	M:11538 F:11539
		M:11097 F:10871	M:11299 F:10825	M:11159 F:11148	F:11227	F:11079	M:11399 F:10795	M:11099 F:10933	F:11280				M:11536 F:11537	F:10966
		M:11146 F:11147	M:11300 F:10825	F:10823	F:11278		M:11012 F:11013	M:11101 F:10996					F:10822	
			M:10849 F:10850	F:10835	F:11608		M:11023 F:10904	M:10998 F:11001					F:10965	
			M:10859 F:10860	F:10855			M:11100 F:11090	M:11010 F:11011						
			M:11060 F:10860	F:10962			M:11085 F:10789	M:11587 F:11011						

M : Male F : Female



## Non-waterproof Type [1] (Cont'd)

	12	13	14	15	16	17	18	19	20	21	22	25	28	34
1.0	F:11129				F:10764									
1.0 II	F:11408				F:11219						F:11220		F:11218	F:11221
					F:11391									
1.0 III			F:11925				F:11914				M:11962 F:11927			
			F:11911				F:11913				M:11926 F:11915			
1.3			M:11654 F:11556	F:11179	M:11573 F:11574			M:11570 F:11571		F:11125	M:11503 F:11502	M:11133 F:11055		
				F:11264							F:11628	F:11043		
1.8	F:10658	F:10973	F:10697				F:10656		F:10696					M:10722
	F:10743													
1.8 II	F:11424		F:11433											
2.3	M:10513 F:10432						M:10325 F:10326							
2.3 II	M:10802 F:10803	M:10804 F:10805	M:10806 F:10807	M:10827 F:10828	M:10808 F:10809	F:11417	M:10818 F:10819		M:10810 F:10811		M:10977 F:10875			
	M:11530 F:11531	M:11541 F:11542	F:10852		M:11167 F:10848				M:10820 F:10821		F:11552			
	F:10967	F:11604												
	F:10968													
	F:11121													
	F:11661													

M : Male      F : Female



**Non-waterproof Type [2]**

	1	2	3	4	5	6	8	9	10	12	13	14	17	22
4.8	M:11258 F:11259	M:10915 F:10916	F:10980	M:11135 F:11136		M:10975 F:10976	F:11778	M:10963 F:10926	M:10861 F:10862					
	F:10911	M:11093 F:11094		M:11878 F:11742		F:11091		F:11092						
	F:10912					F:11583		F:11615						
								F:11686						
6.3	M:10178 F:10179	M:10213 F:10214	M:10283 F:10216			M:10172 F:10173		M:10174 F:10175	M:10176 F:10177					
	F:10619													
	F:10786													
	F:10792													
7.7		M:10356 F:10357												
8.0	M:10994 F:10995	M:10958 F:10903	F:10956	M:10866 F:10867										
		M:11655 F:11579	F:11314											
		F:11684	F:11685											
FOG-LP		F:10481												
FTC			F:10489		F:10487									
			F:10490		F:10488									
HEAD-LANP			F:10428											
LAC								F:10133			F:10132			M:10131
LC						M:10289								
MFPC				F:10645				F:10301	F:10302	F:10303		F:10369		
									F:10304	F:10372				

M : Male      F : Female

## Non-waterproof Type [3]

(Cont. next page)

	1	2	3	4	5	6	7	8	9	10	12	13	14	15	16
MIC				F:10378					F:10152			F:10062			
OBD II															F:11665
PULSE LOCK										F:10294	F:10351		F:10371		
SFPC										F:11116		F:11114			F:11113
												F:11115			
SL			F:10070				F:10071								
SP		F:10362			F:10376										
TLC						M:10401 F:10402				M:10719 F:10528					F:10635
TNS				M:10466 F:10467									M:10470 F:10471		
TODC	M:10182 F:10183				M:10040 F:10274				M:10044 F:10045						
1.0+1.8															
1.0 II+1.8 II													F:11225		F:11565
1.0 III+2.3 II															
1.3+2.3 II										M:11613				F:11042	
														F:11056	
2.3+6.3								F:10463							

M : Male

F : Female

**Non-waterproof Type [3] (Cont'd)**

	17	18	20	22	23	24	25	26	32				
MIC	F:10037												
OBD II													
PULSE LOCK		F:10295				F:10296							
		F:10350											
SFPC													
SL													
SP													
TLC													
TNS				M:10552 F:10526				M:10599 F:10587					
TODC													
1.0+1.8				F:10765				F:10925 F:10763	F:10918				
1.0 II+1.8 II		M:11223 F:11226	M:11223 F:11224		F:11392			F:11390 F:11423		M:11222			
1.0 III+2.3 II													
1.3+2.3 II	F:11671	F:11594		F:11469		M:10920 F:10921		M:11158 F:11058					
		F:11595		M:11504 F:11469		M:11208 F:10921							
2.3+6.3													

M : Male      F : Female

## Non-waterproof Type [4]







	4	5	6	8	10	11	12	14	15	16	19	20	24	26	
2.3 II+4.8	M:11126 F:11118	M:10985 F:10986		M:10876 F:10877	M:11596 F:11527	M:10872 F:10873	M:10878 F:10879	M:10812 F:10813	M:10814 F:10815	M:10884 F:10885	M:10882 F:10883	M:10816 F:10817	M:10880 F:10881	M:11631	
				F:11130	F:10993		F:10932								
				F:11279											
				F:11701											
2.3 II+8.0			M:10909 F:10910								M:10856 F:10857				
4.8+8.0		F:10888	F:10889												
6.3+7.7			F:10447												

M : Male

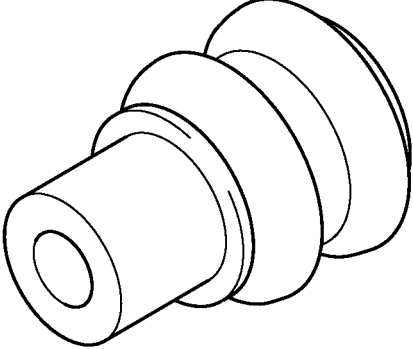
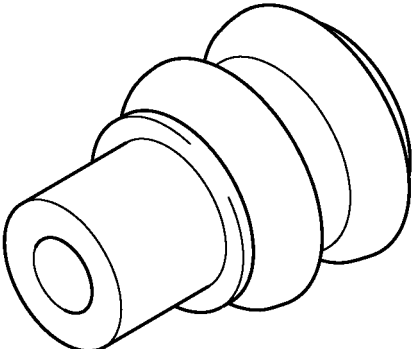
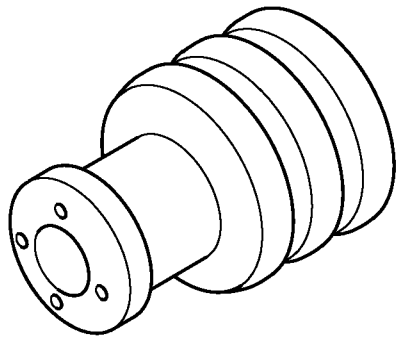
F : Female

TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE

**Terminal Packing**

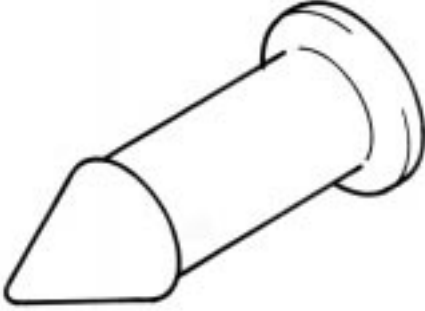
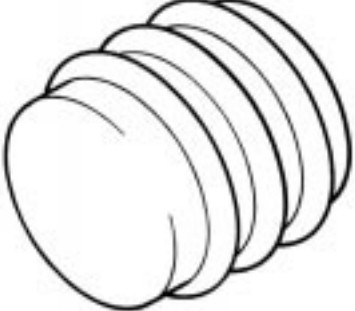
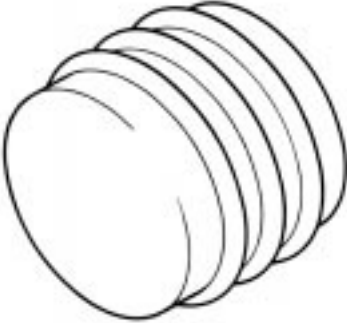


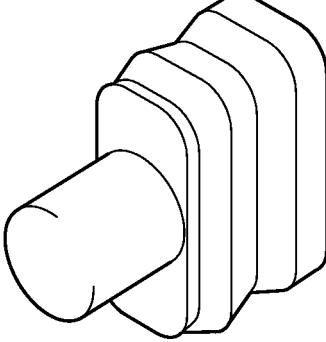
Type	<b>6.3</b>	
Cav. No.	1	3
		
P/N	90980-09210	90980-09211
Type	<b>7.7</b>	
Cav. No.	1	
		
P/N	90980-09380	
Type	<b>TODC</b>	
Cav. No.	1	3
		
P/N	90980-09378	90980-09379

### Terminal Packing




Type	<b>2.3</b>	
Cav. No.	1	
		
P/N	90980-09148, 09151, 09149	
Type	<b>2.3II</b>	
Cav. No.	1	
		
P/N	90980-09451	
Type	<b>HB3, HB4</b>	
Cav. No.	1	
		
P/N	90980-09396	

**TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE**

## Hole Plug

Type	<b>6.3, 7.7, TODC</b>	<b>4.8</b>
		
P/N	90950-01730	90980-09325
Type	<b>8.0</b>	<b>2.3, 2.3II</b>
		
P/N	90980-09353	90980-09152
Type	<b>TLC</b>	<b>1.3</b>
		
P/N	90980-09162	90980-09414

**Press Sleeve**

Color	<b>YELLOW</b>	<b>BLUE</b>
		
P/N	82999-12030	82999-12020
Color	<b>RED</b>	
		
P/N	82999-12010	





