

## **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**

**©2002 TOYOTA MOTOR CORPORATION**

All rights reserved. This book may not be reproduced or copied, in whole or in part, without the written permission of Toyota Motor Corporation.



# — TABLE OF CONTENTS —

	Section Code
INTRODUCTION .....	A
TERMINAL AND CONNECTOR REPAIR .....	B
TABLE OF HOUSING CROSS SECTION .....	C
TABLE OF HOUSING SHAPE .....	D
HOUSING PART NUMBER LIST .....	E
TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE .....	F
APPENDIX .....	G



---

# INTRODUCTION

GENERAL INFORMATION .....	A-1
TERMINAL TYPE NUMBER NAME .....	A-1
WHAT IS WIRE HARNESS? .....	A-2
WIRE HARNESS COMPONENTS .....	A-2
ELECTRIC WIRE .....	A-3
TERMINAL AND HOUSING .....	A-3
HOW TO PERFORM FOR SYSTEM INSPECTION .....	A-5
CIRCUIT PROTECTION .....	A-8

A

A

## INTRODUCTION—GENERAL INFORMATION

### GENERAL INFORMATION

This manual provides instruction in the following repairs:

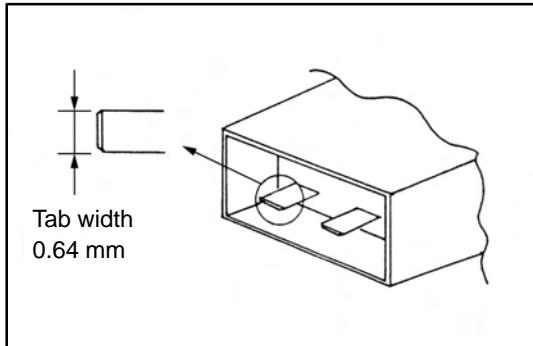
- How to Inspect for System Inspection
- Circuit Protection
- Terminal and Connector Repair Procedure

#### **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.**

**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.**

A



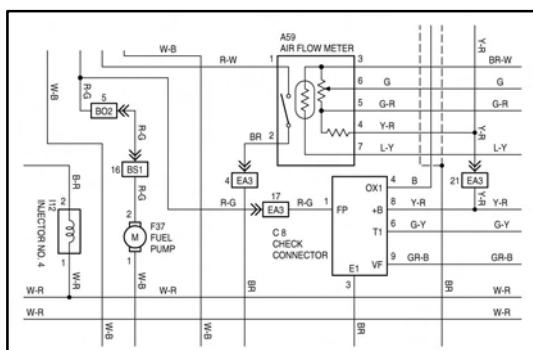
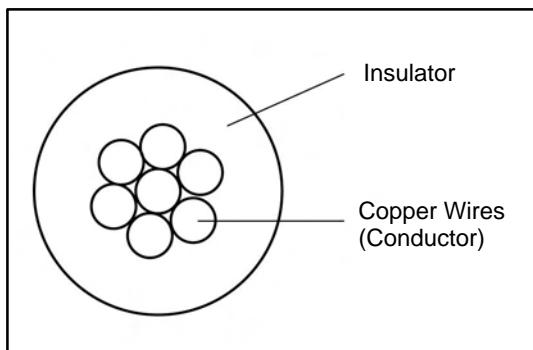
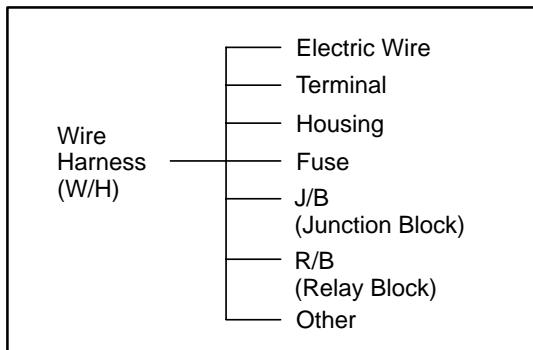
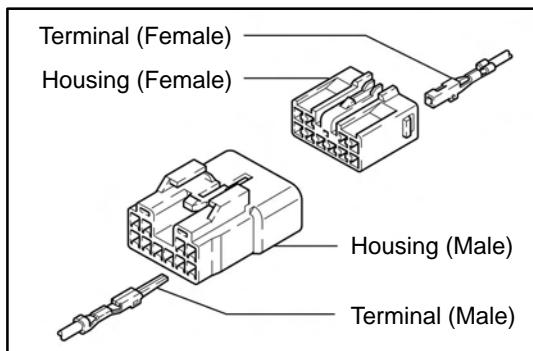
#### Terminal type number name

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.



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	

## 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.

## 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.

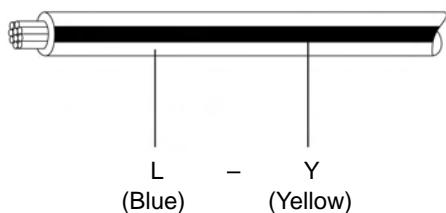
## Electric Wire

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.

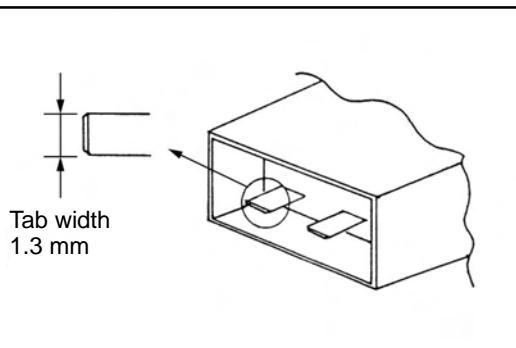
The insulator is generally made from vinyl chloride and covers the conductor with even thickness. The insulators are color-coded in order to distinguish each wire. The base colors or the stripe patterns is used to make difference between insulators. Each color of wires is indicated by the abbreviation in the repair manual and the electrical wiring diagram.

## INTRODUCTION-GENERAL INFORMATION

Example: L-Y



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



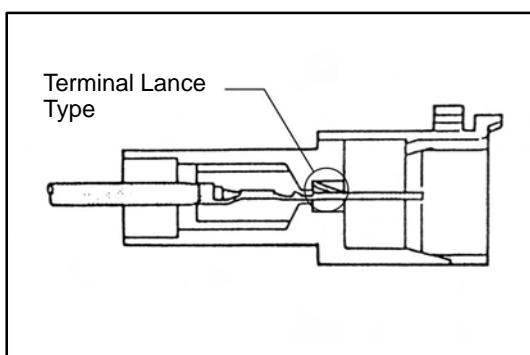
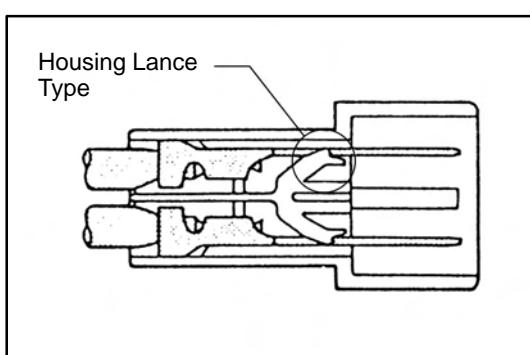
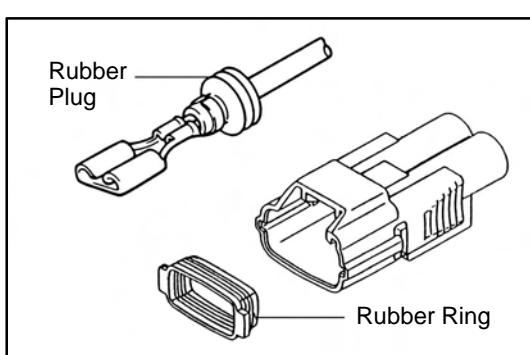
### Terminal and housing

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.

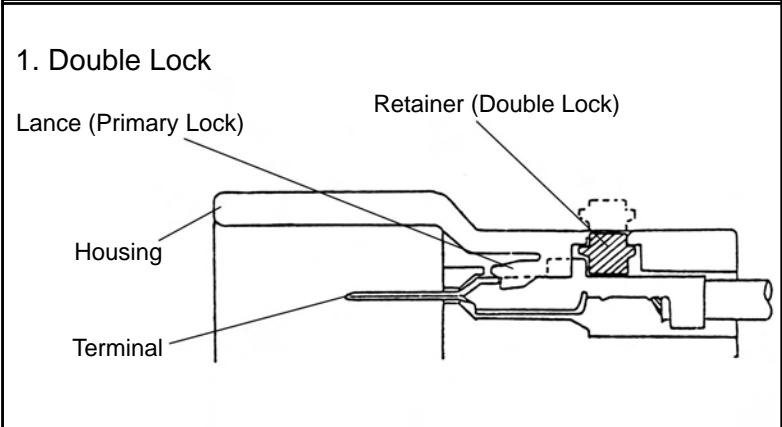
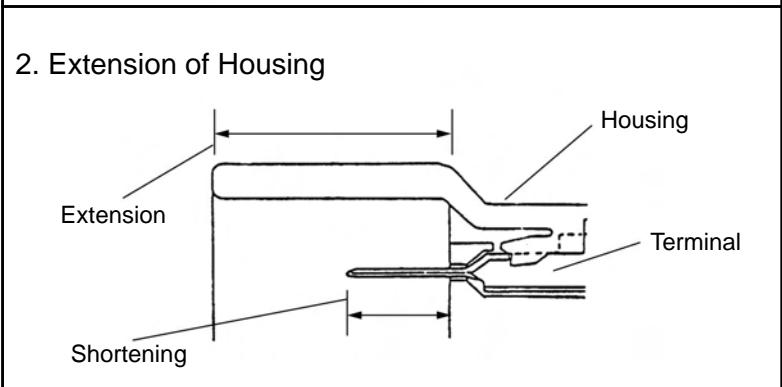
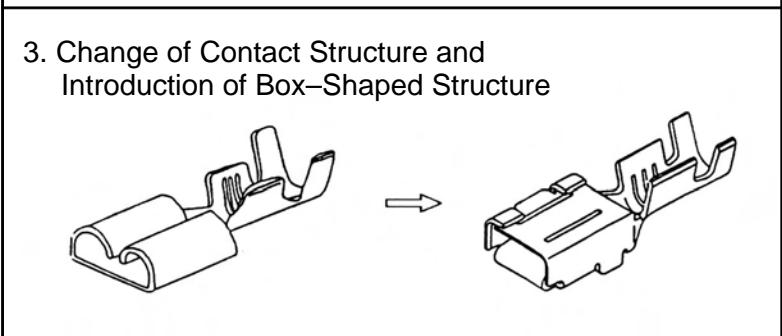
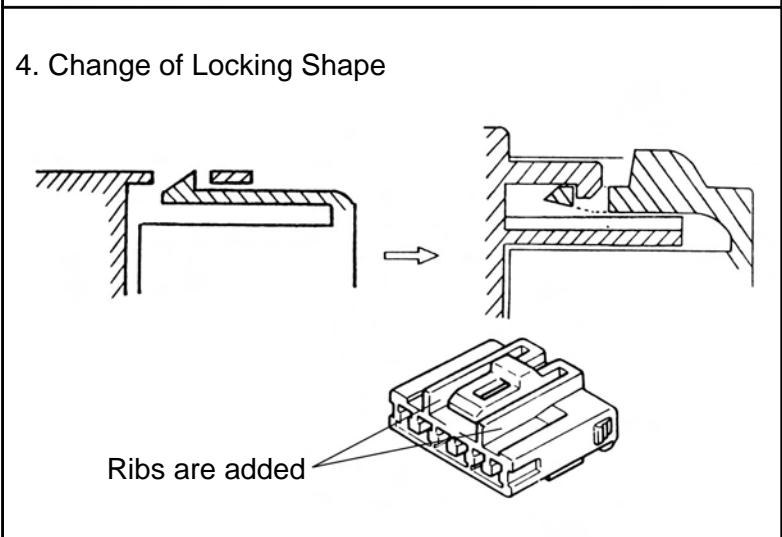
As the number of the circuit is increasing recently, there are new types of parts introduced. For example, there is the hybrid type housing, which is a combination of terminals with different tab width, such as the power source terminal or the signal terminal. Also, new type of connector such as the 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.



A

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

Characteristics (Improvement)	Note
<p>1. Double Lock</p> 	<p>If terminal is not inserted to housing correctly, the retailer 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>This improves the close fit of locking and you can hear the click sound and feel that the connector is completely installed.</p>

## INTRODUCTION—HOW TO PERFORM FOR SYSTEM INSPECTION

### 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

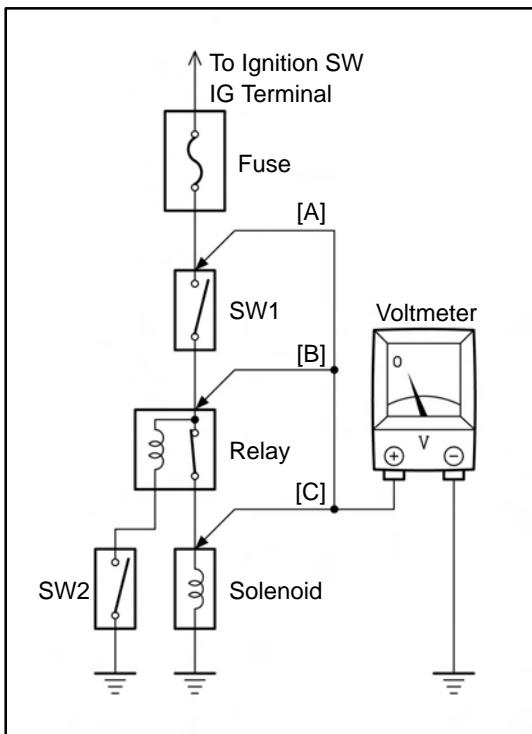
Always inspect the trouble taking the following items into consideration:

- 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.

A



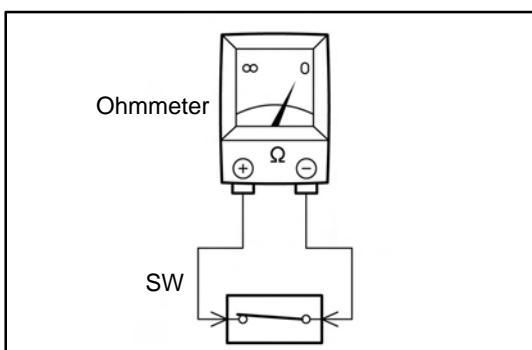
#### 1. Voltage Check

- (a) 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)

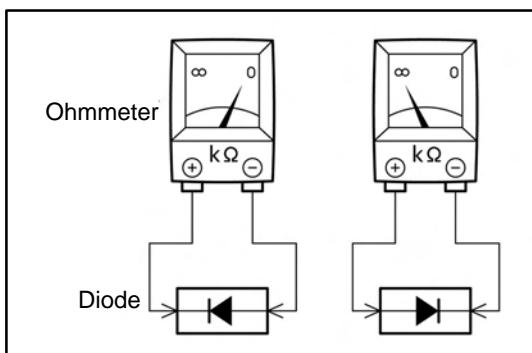
- (b) Using a voltmeter, connect the negative (–) lead to a good ground point or negative (–) battery terminal and the positive (+) lead to the connector or component terminal. This check can be done with a test bulb instead of a voltmeter.



#### 2. Continuity and Resistance Check

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

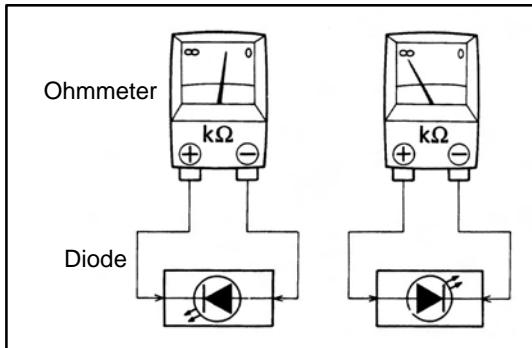
## INTRODUCTION—HOW TO PERFORM FOR SYSTEM INSPECTION



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.

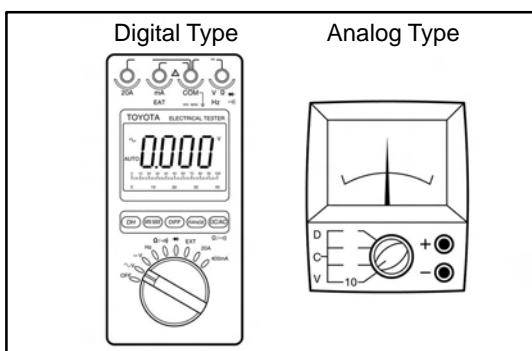
**HINT:** Specifications may vary depending on the type of tester, so refer to the tester's instruction manual before performing the inspection.



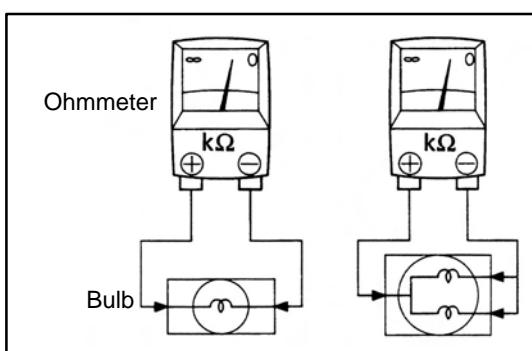
Check LED (Light Emitting Diode) in the same manner as that for diodes.

**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.



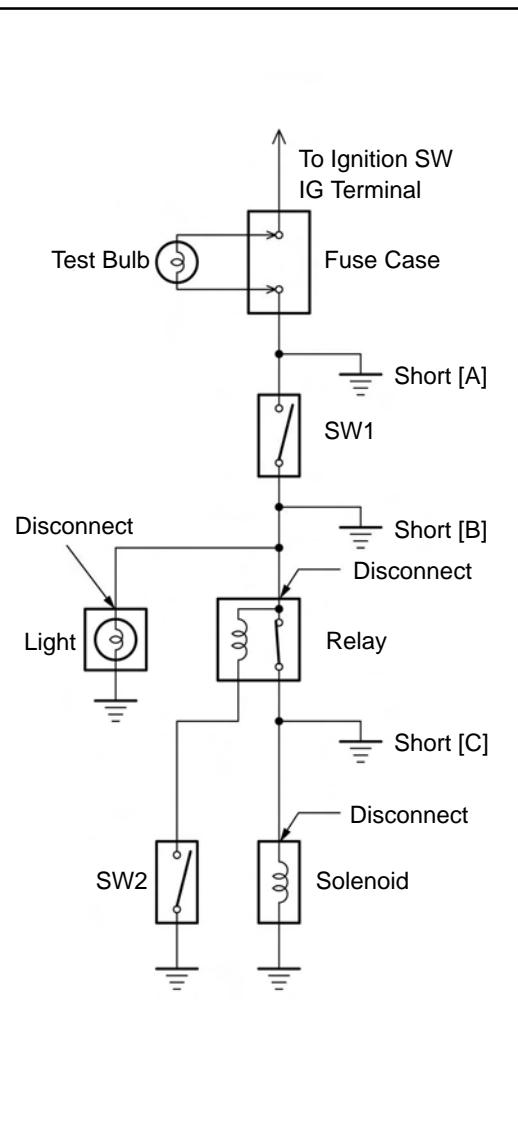
- (c) Use a volt/ohmmeter with high impedance ( $10k\Omega/V$  minimum) for troubleshooting of the electrical circuit.



### 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.

## INTRODUCTION—HOW TO PERFORM FOR SYSTEM INSPECTION



### 4. Finding a Short Circuit

- Remove the blown fuse and eliminate all loads from the fuse.
- Connect a test bulb in place of the fuse.
- 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)

- 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.
- Find the exact location of the short by lightly shaking the problem wire along the body.

#### **CAUTION:**

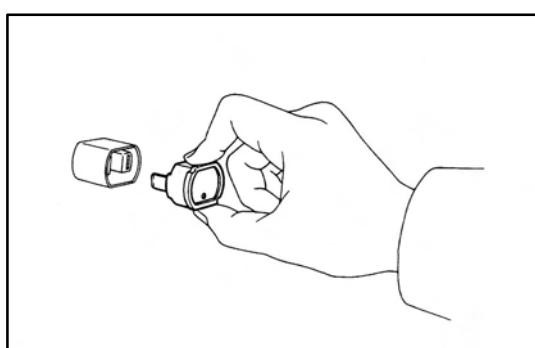
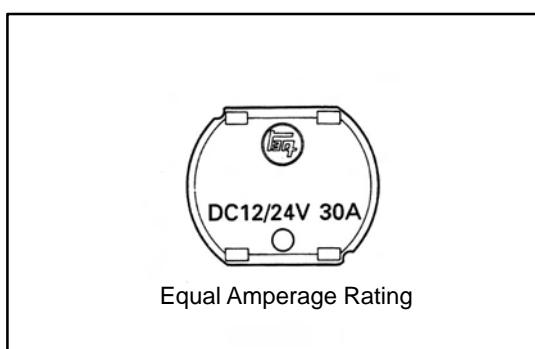
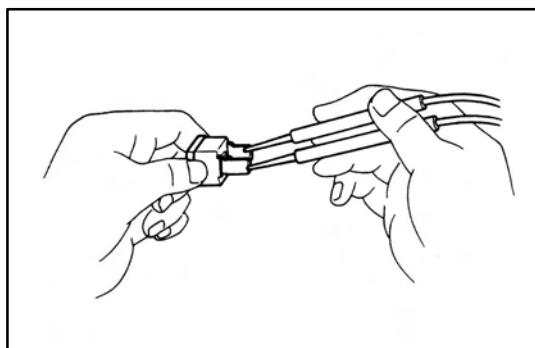
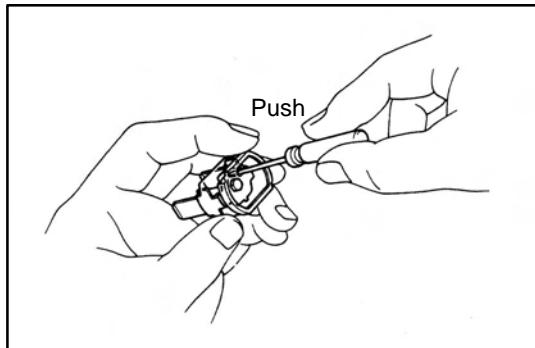
- Do not open the cover or the case of the ECU unless absolutely necessary. (If the IC terminals are touched, the IC may be destroyed by static electricity.)**
- When replacing the internal mechanism (ECU part) of the digital meter, be careful that no part of your body or clothing comes in contact with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

A

## 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.

A



### RESET CIRCUIT BREAKER

#### 1. Remove Circuit Breaker

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

#### 2. Reset Circuit Breaker

- Insert the needle into the reset hole and push it.
- 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.

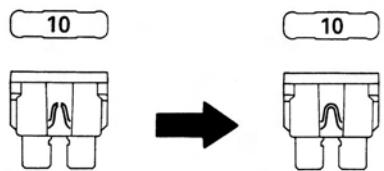
HINT: If replacing the circuit breaker, be sure to replace it with a breaker with an equal amperage rating.

#### 3. Install Circuit Breaker

- Install the circuit breaker.
  - 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.

## INTRODUCTION-CIRCUIT PROTECTION

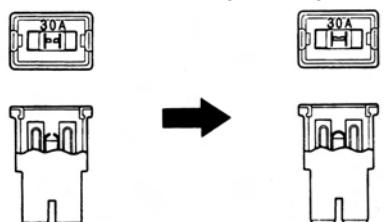
Equal Amperage Rating



## 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.

Equal Amperage Rating



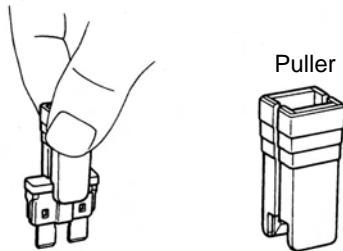
A

**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.



**A**

---

# **TERMINAL AND CONNECTOR REPAIR**

PREPARATORY ITEMS .....	B-1
CONNECTOR REPAIR .....	B-2
TERMINAL REPLACEMENT .....	B-3
HOW TO INSTALL AND REMOVE SPECIAL CONNECTORS .....	B-47

**B**

**B**

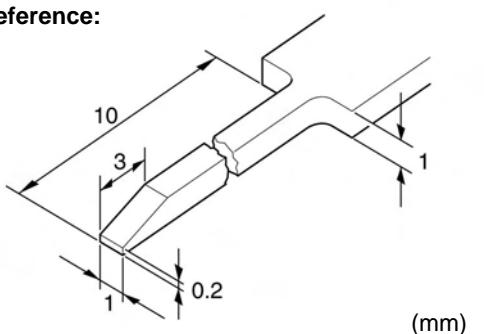
## TERMINAL AND CONNECTOR REPAIR—PREPARATORY ITEMS

### 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

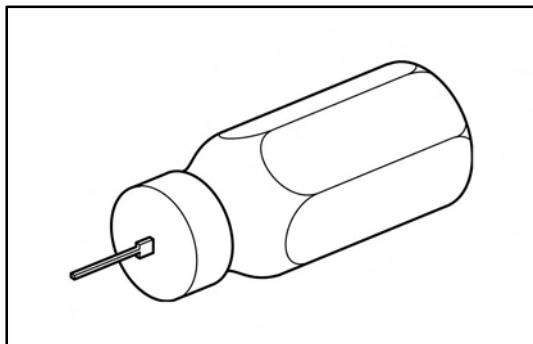
**B**

Reference:



#### 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.

---

## TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT

---

### 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.**



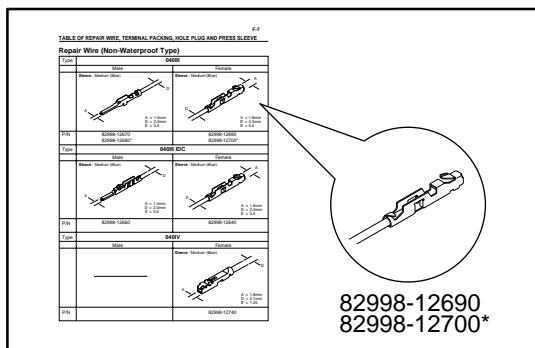
**Step 4. Install the terminal into the connector.**

B

**TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT****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.

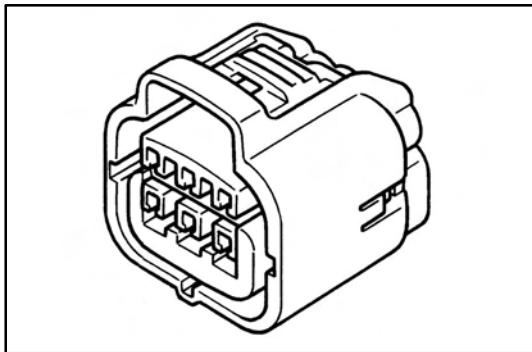
**HINT:** In some of the illustrations, there are two part numbers for the same illustration of terminal with wire, because although the shapes of the terminals are completely the same, there is a difference in with /without gold-plating (gilded).

**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 marking repairs.
- Do not use male and female terminals which are made of different materials from each other.



### 2. Connector Body

- (a) Identify the part number of the corresponding terminal with wire according to the above-mentioned 1.
- (b) 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

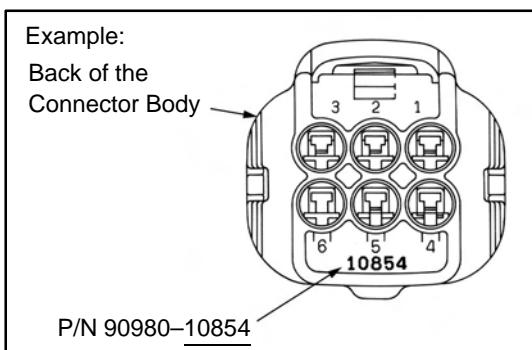
**HINT:**

- (a) 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 and appropriate connector body for each terminal being used.

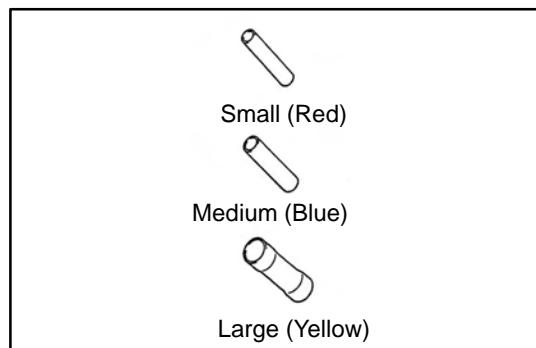
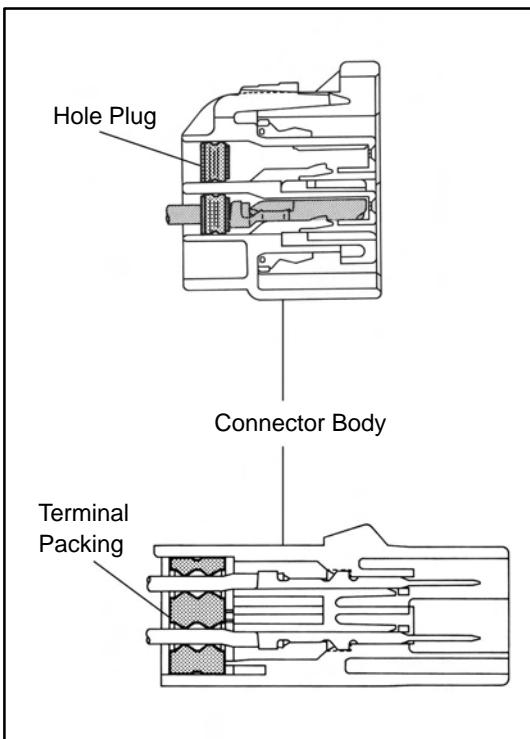
**Example:**

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



- (b) 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



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)

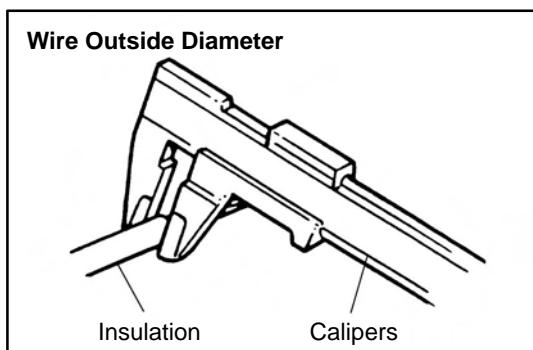
## 3. Hole Plug/Terminal Packing

- (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.

- (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

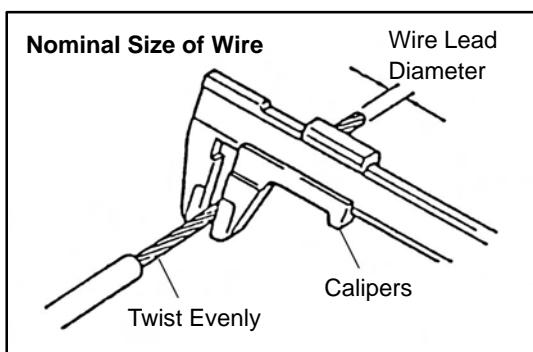
(b) When size is based on the nominal size of the wire.

Sleeve size

S : Small (Red)

M : Medium (Blue)

L : Large (Yellow)

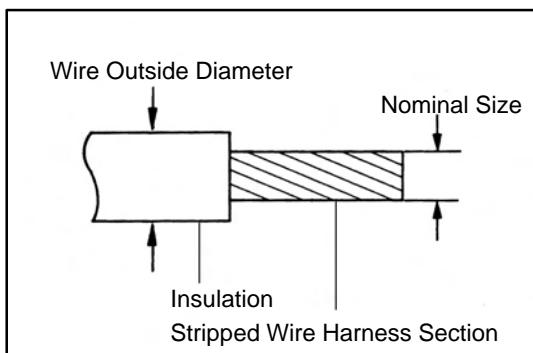


HINT: To calculate the "Nominal Size" of the wire.

Nominal size =

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

B

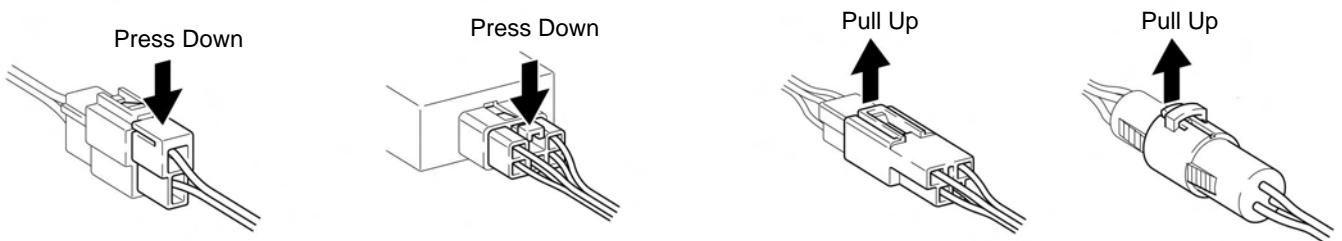
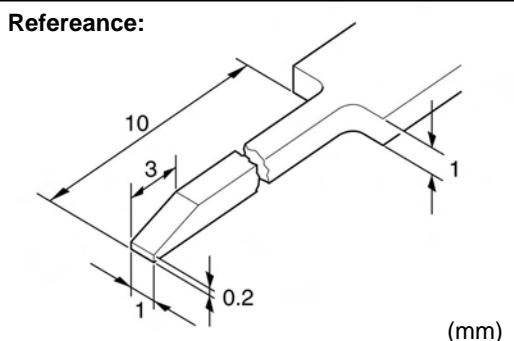


HINT: Outside Diameter and Nominal Size

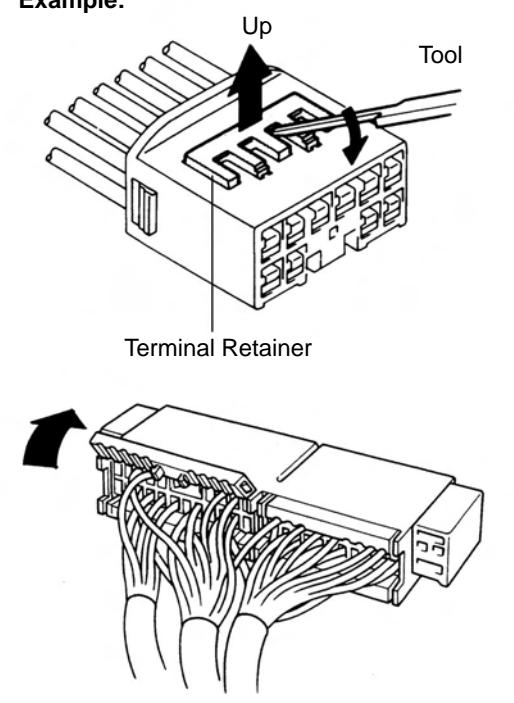
**TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT****Step 2. Disconnect the Terminal from the Connector.****1. Disconnect Connector**

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:****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.

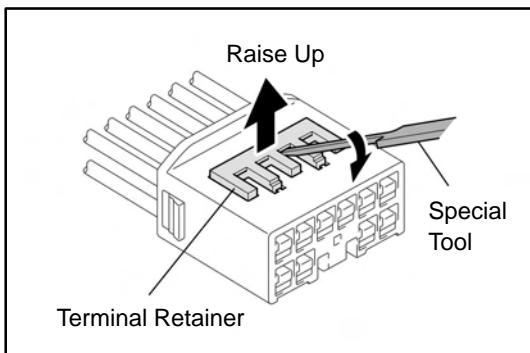
**Example:****3. Disengage the double locking device or terminal retainer.**

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

**NOTICE:**

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

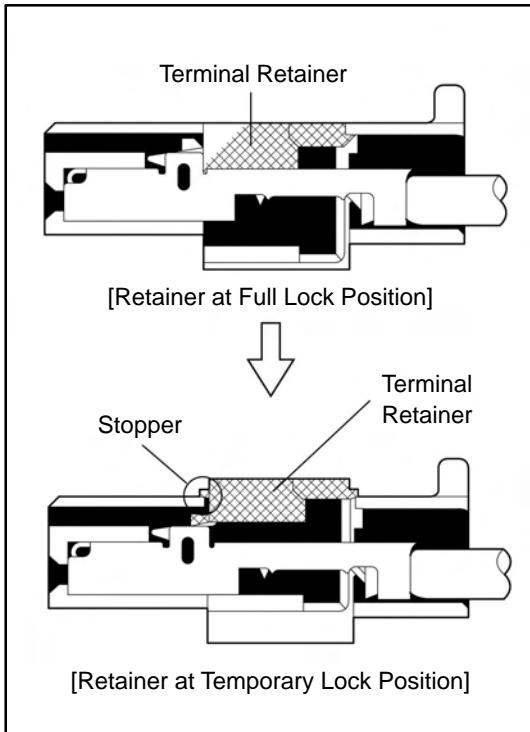
## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT



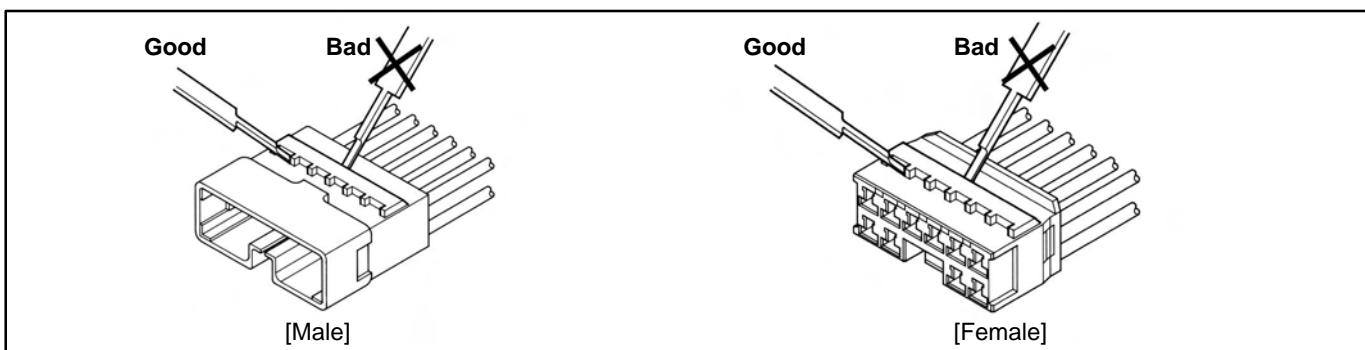
Type A (For 1.0II, 1.8, 2.3II, 4.8 and 8.0 of Non-Waterproof Type Connector)

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

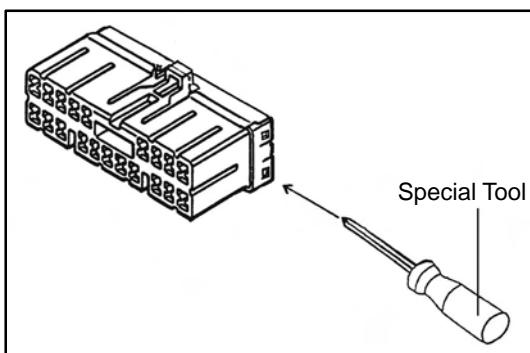
HINT: The needle insertion position varies according to the connector's shape (number of terminals, etc.), so check the position before inserting it.



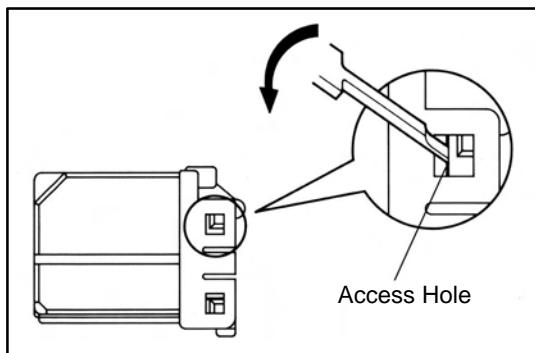
B



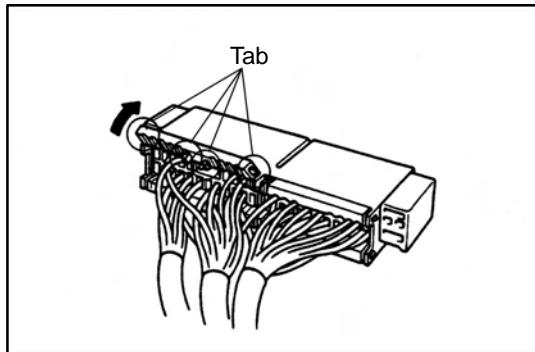
Type B (For 1.8, 1.0 and TLC of Non-Waterproof Type Connector)



## TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT

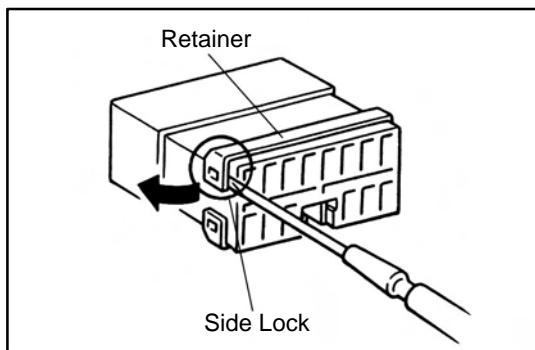
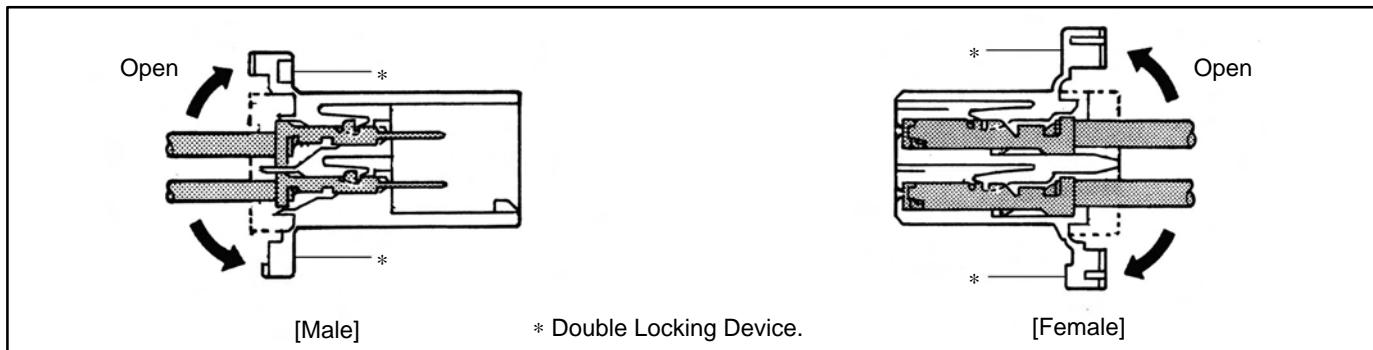


- (1) Press the special tool at a 45° angle into the locking lug access hole as shown.  
Raise the double locking device up as far as possible.



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

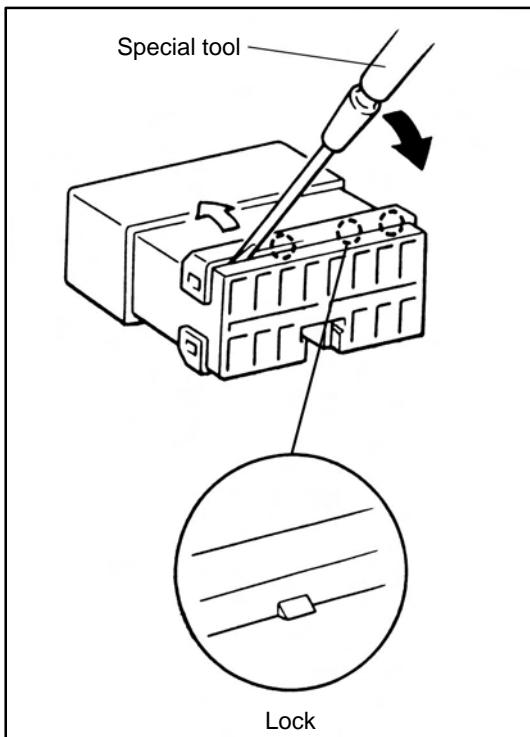
**NOTICE:**  
**TLC housing is not be reusable. Please replace it with the new one after replacement of the terminal.**



## Type C (For TNS, FTC Type Connector)

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

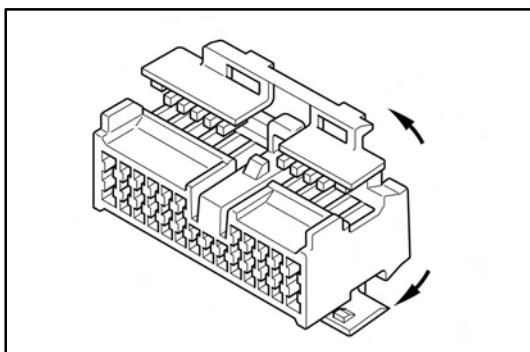
## TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT



- (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:**

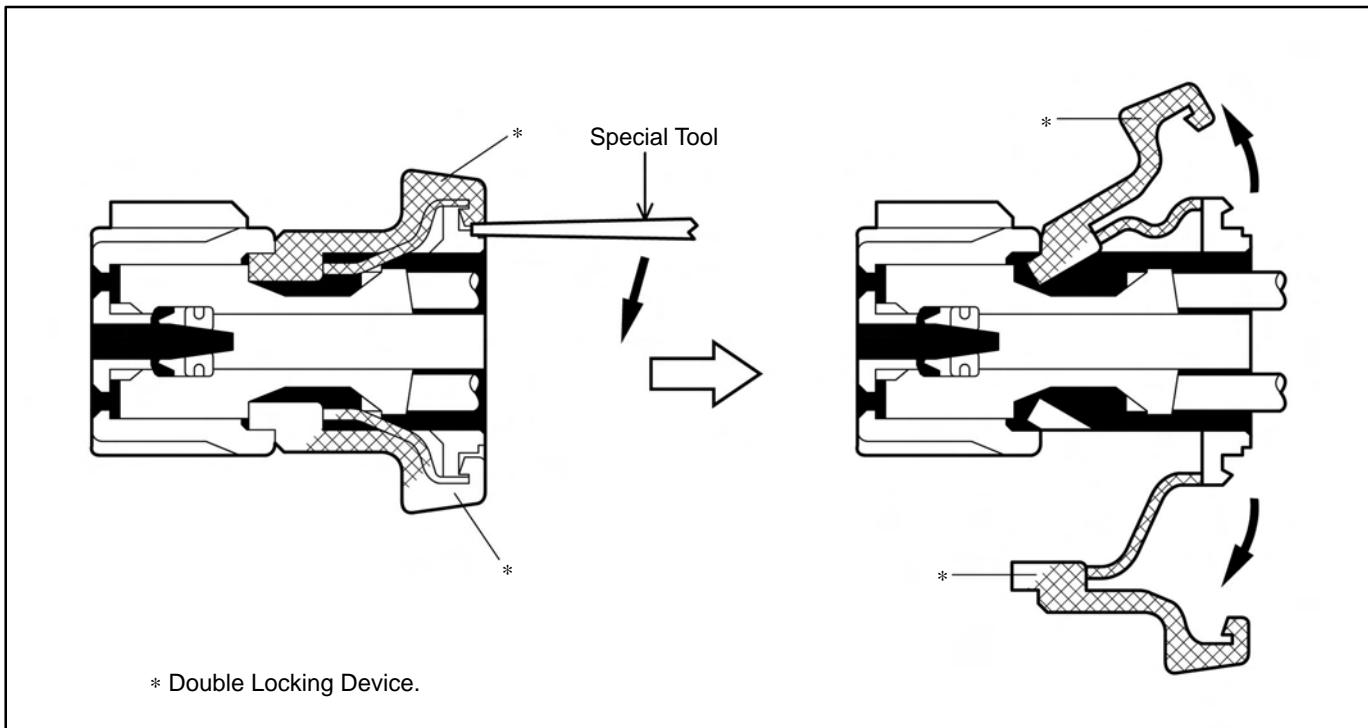
- Do not insert the special tool too much. It may cause damage on the fit section of the terminal and the wire harness.
- TNS housing is not reusable. Please replace it with the new one after replacement of the terminal.



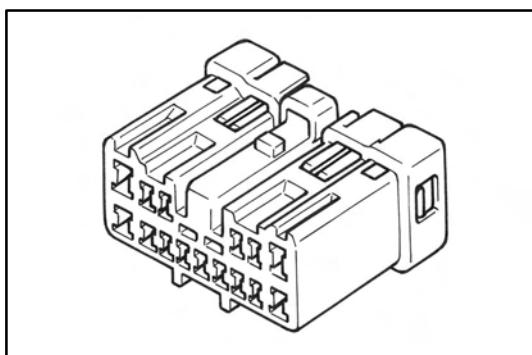
Type D (For 1.3 of Non–Waterproof Type Connector)

## [Case 1]

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

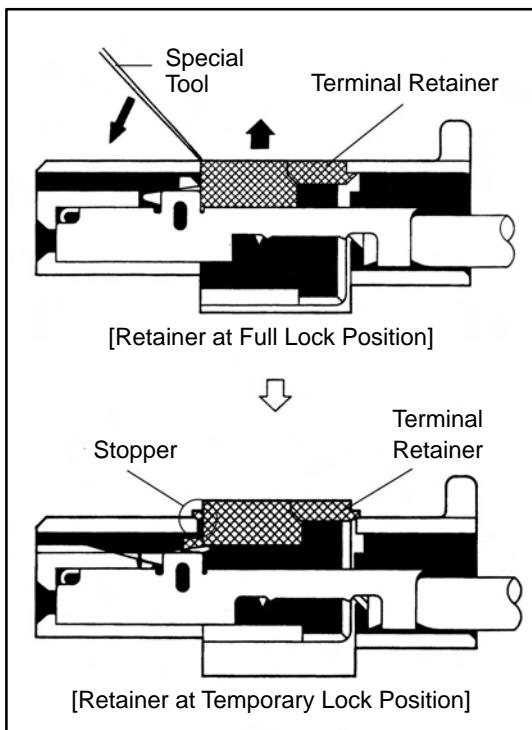
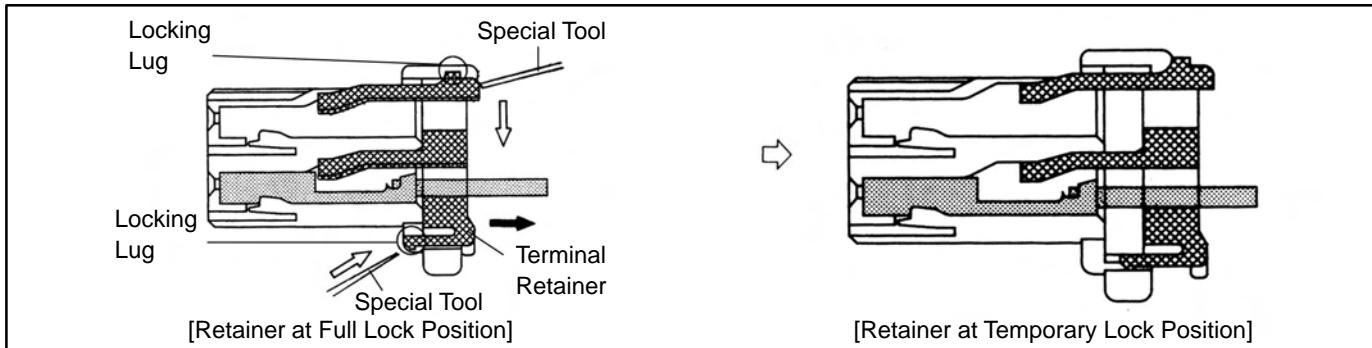


## TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT



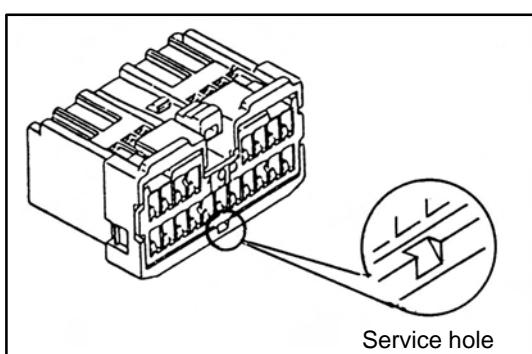
## [Case 2]

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

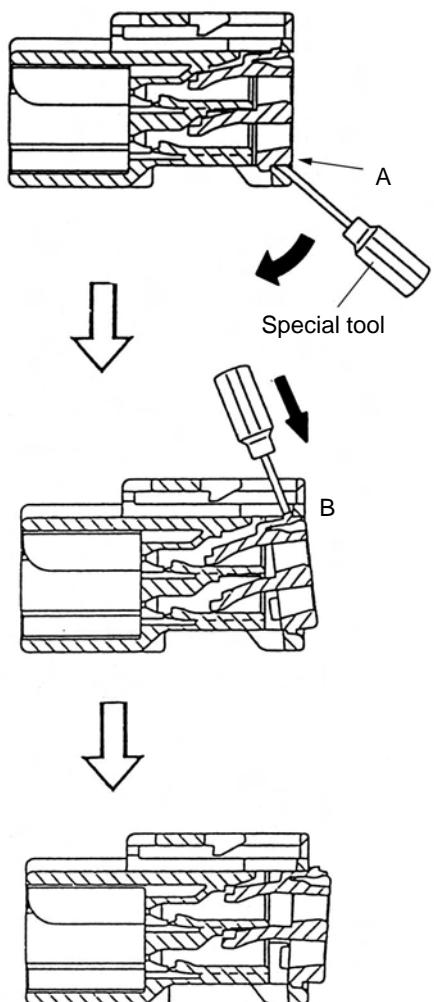


## [Case 3]

- (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.

Appearance when the double locking is released

## 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

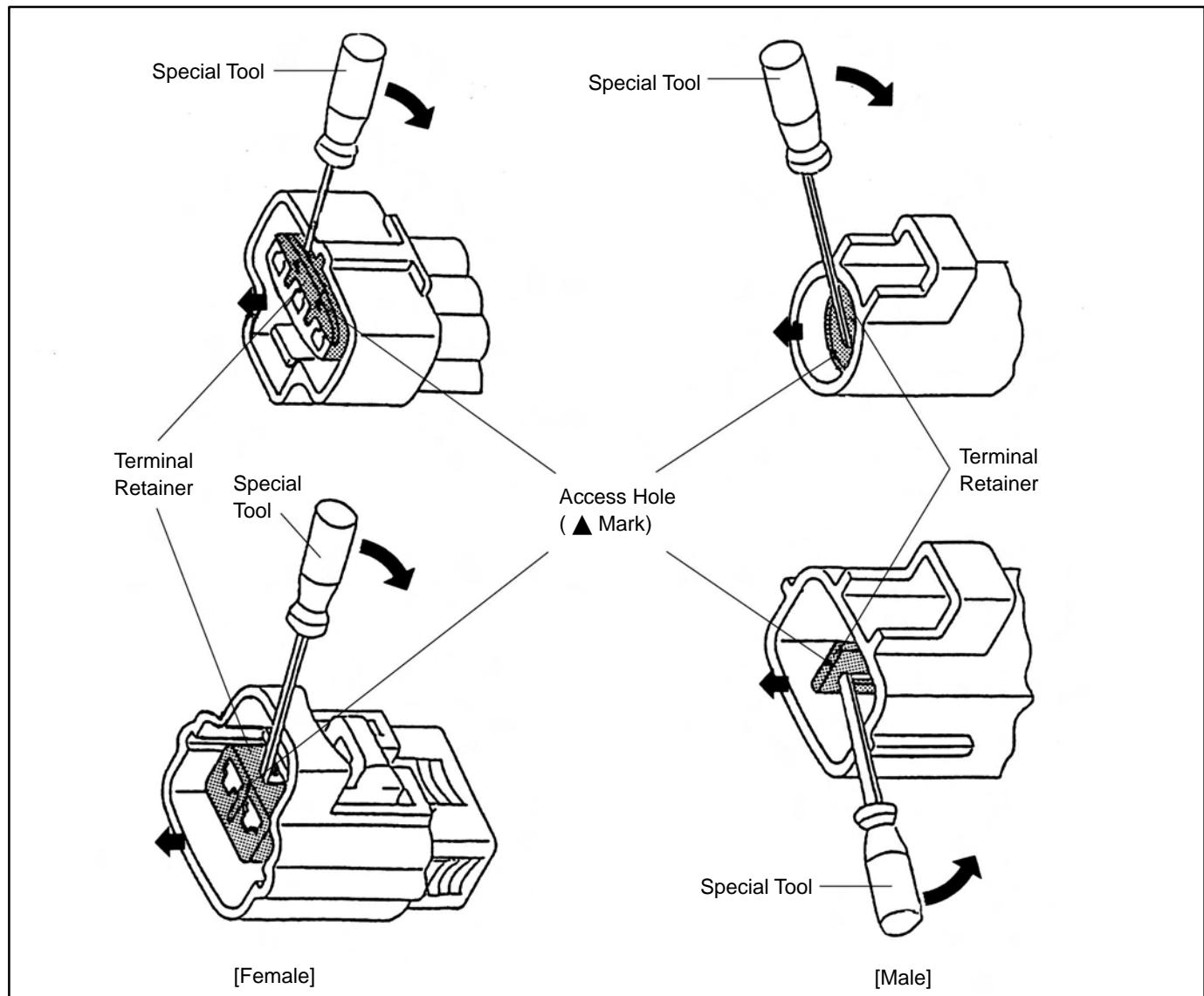
Black or White : Gray

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).

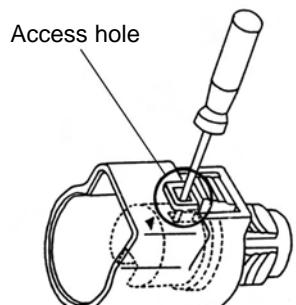
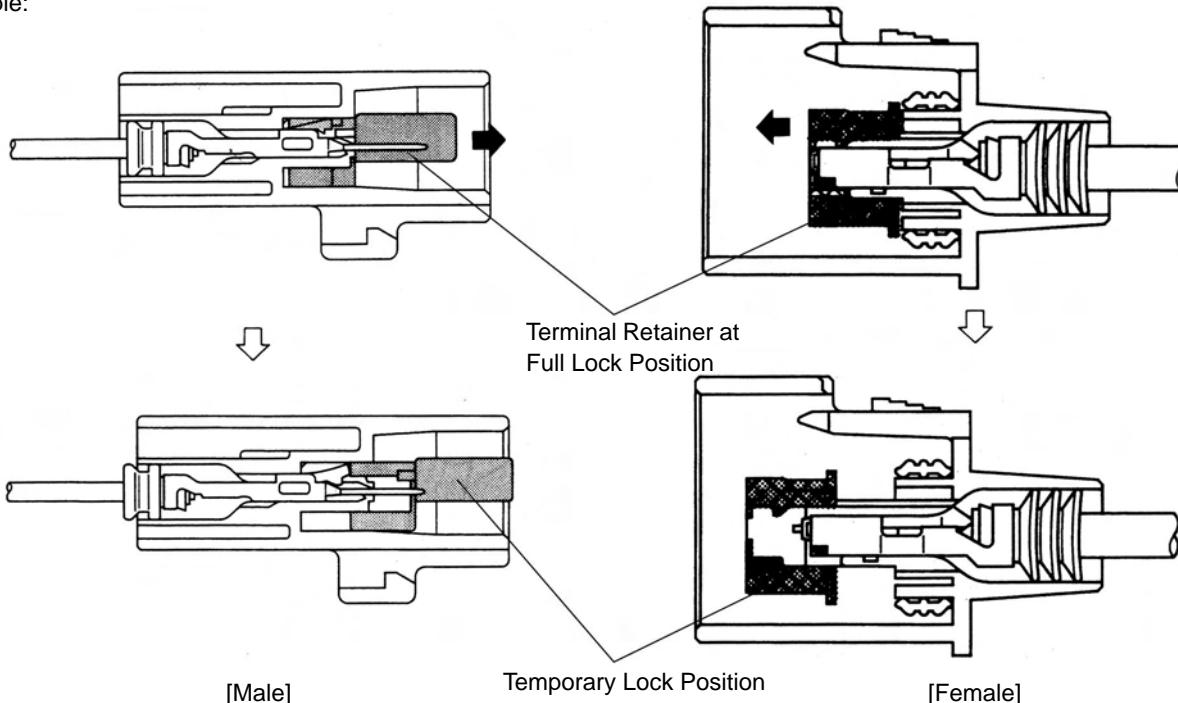


## TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT

- (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.

Example:



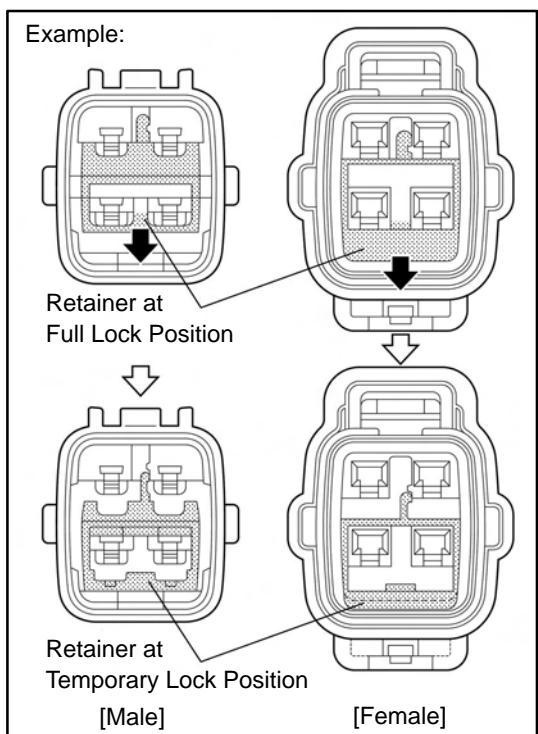
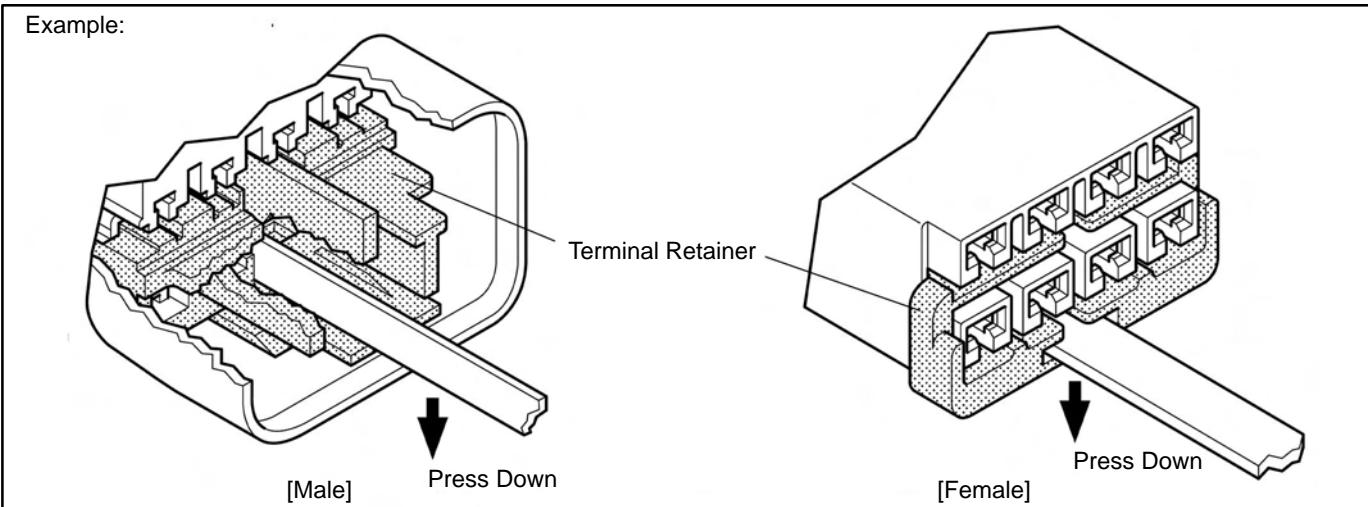
HINT: In some cases insert the special tool from the access hole on the flank of the housing.

## 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

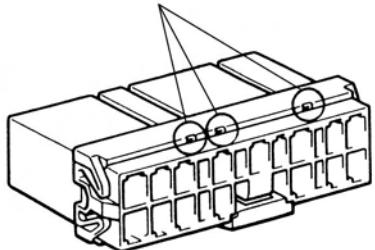


(1) Insert the tool straight into the access hole of terminal retainer as shown.

Push the terminal retainer down to the temporary lock position.

## TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT

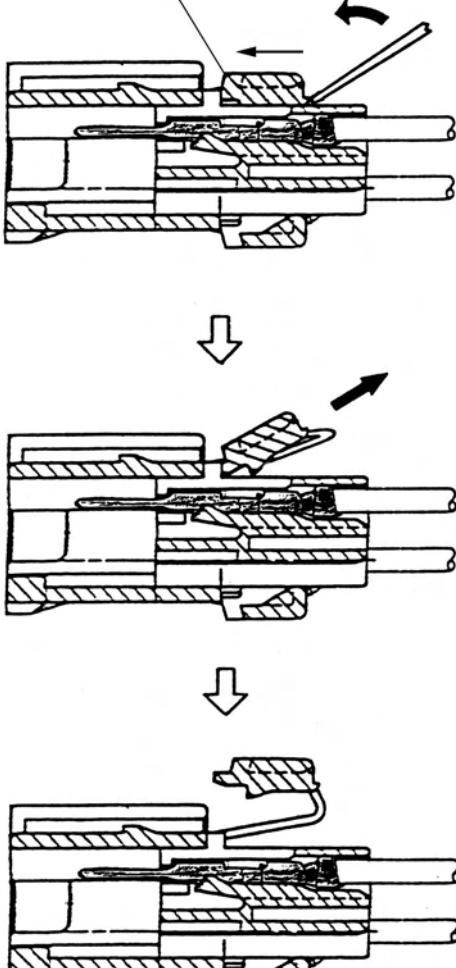
Service hole



## Type F (For C-Type Connector)

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

Retainer

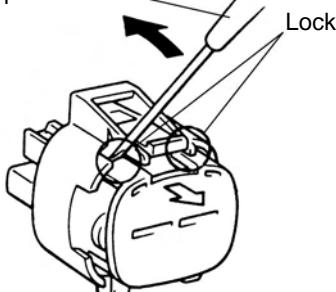


- (2) Move the special tool to the direction of the arrow and release the lock.

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.

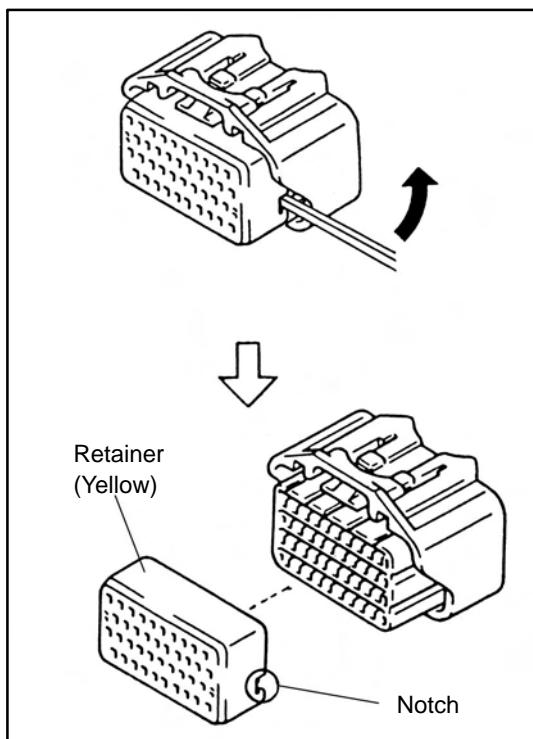
Special tool



## 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



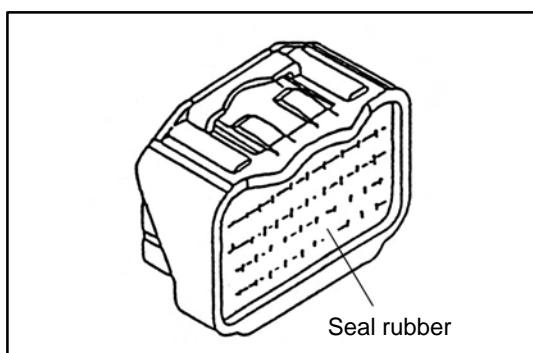
## Type H (For 1.0II Type Connector)

- (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 the pull the retainer out.

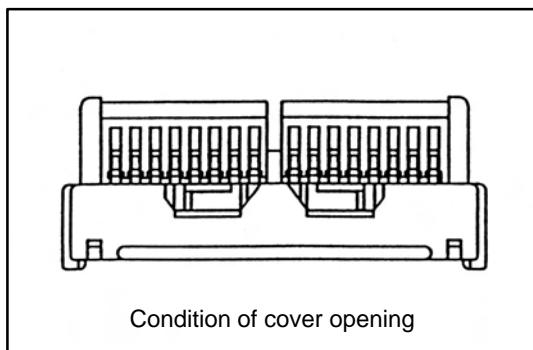
**NOTICE:**

**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.

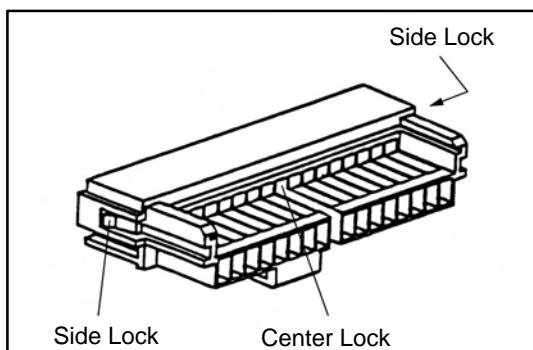
**NOTICE:**

- 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)

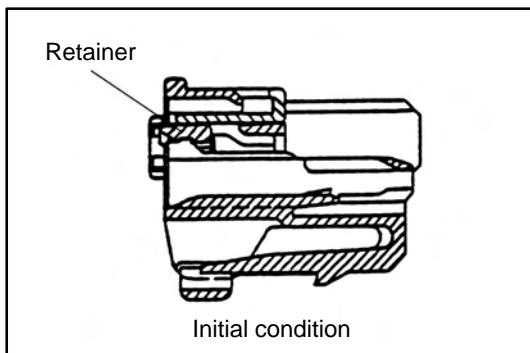
- (3) Remove the center lock of the housing.

- (4) Remove the side lock of the retainer. (The other side)

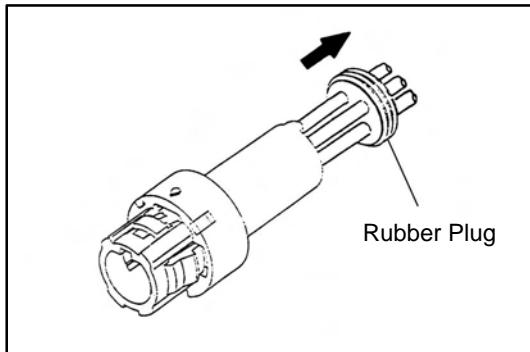
**NOTICE:**

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

## TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT



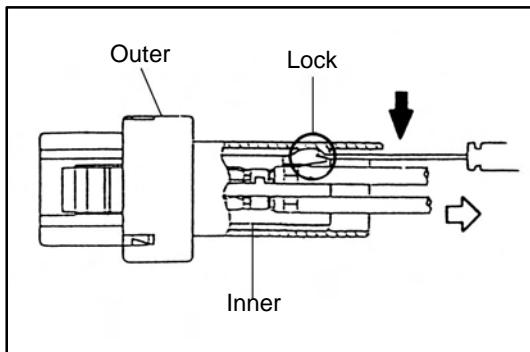
(5) Move the retainer until it becomes the initial condition.



Type J

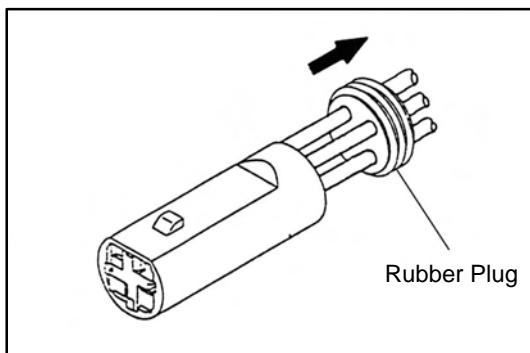
[Male]

(1) Remove the rubber plug.



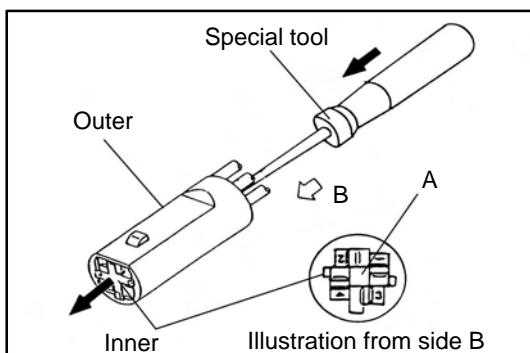
(2) Push the lock of the inner using the special tool.

(3) Pull the wire to the direction of the arrow pushing the lock up and remove the inner from the outer.



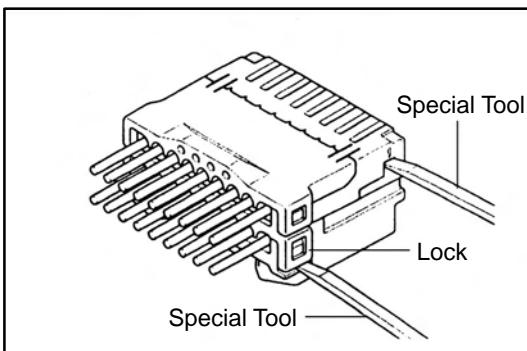
[Female]

(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



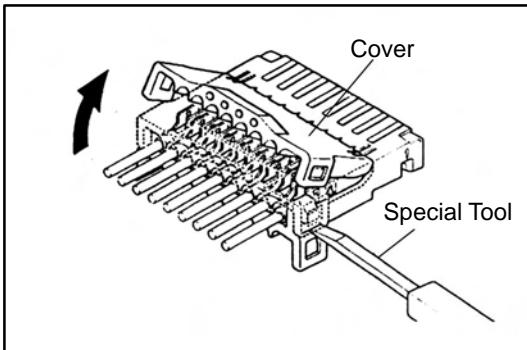
Type J (For Insulation Displacement Connector)

(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.**

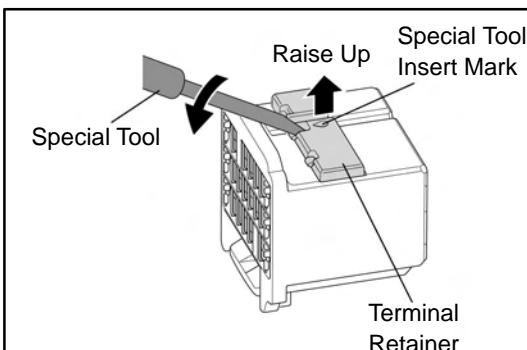


(2) w/ Cover : Open Connector Cover

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

**NOTICE:**

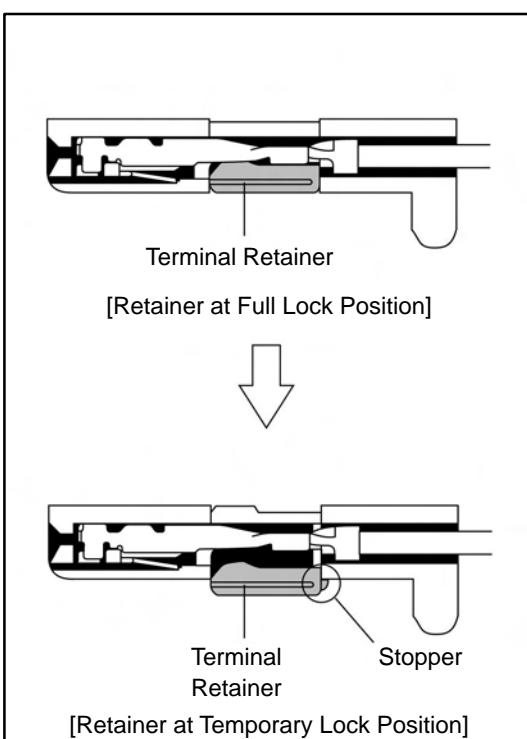
**Do not apply too much force to the lock arm.**



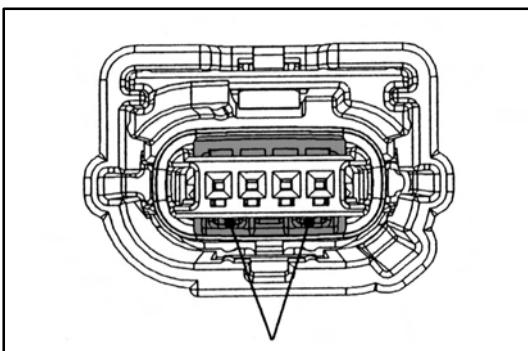
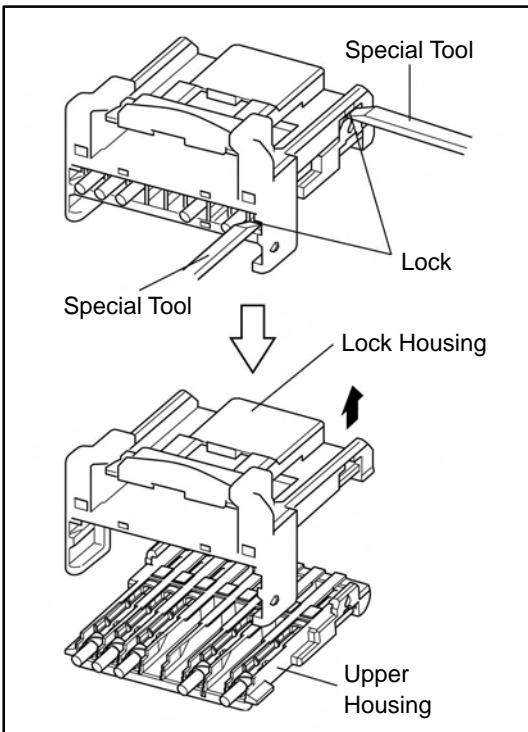
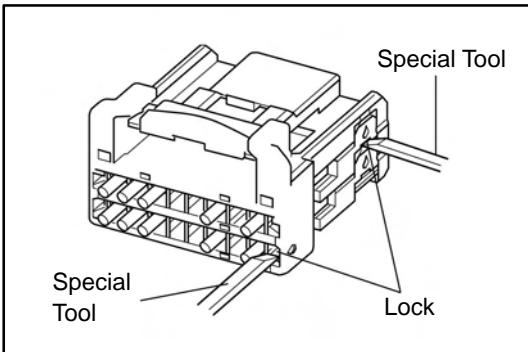
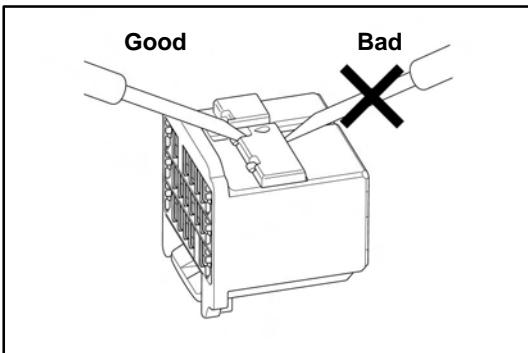
Type K (0.64 Type Connector)

(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:**

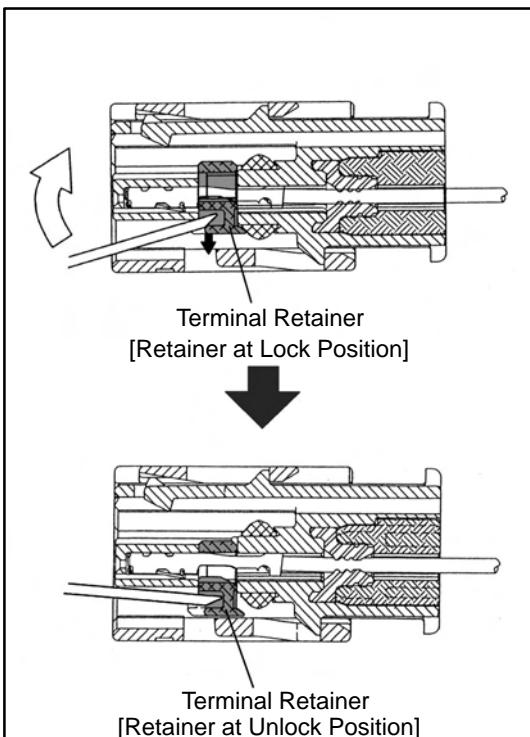
- **Do not apply too much force to the lock arm.**
- **Mark the upper housing and lower housing to prevent mistakes when putting them together.**

## Type M (0.64 of Splash Proof Connector)

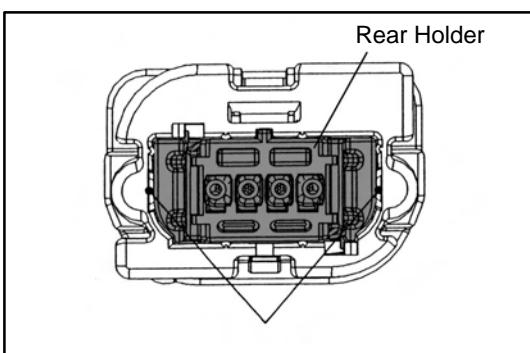
## (1) Release Terminal retainer.

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

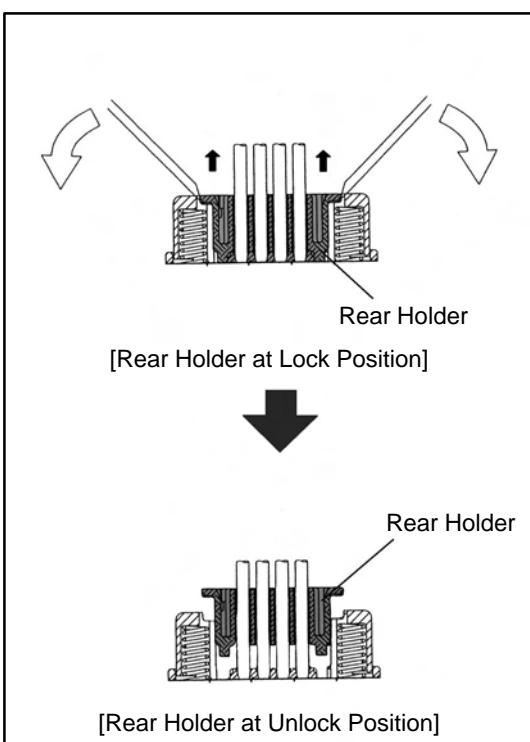
## TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT



Move Special Tool in the direction of arrow.



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

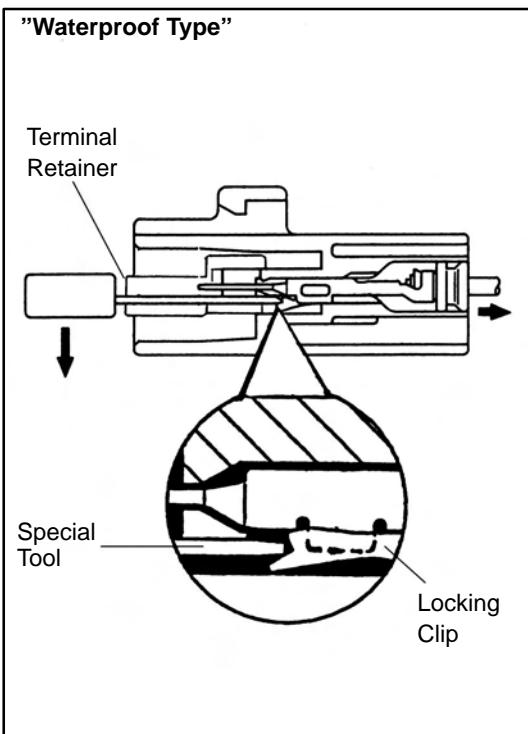
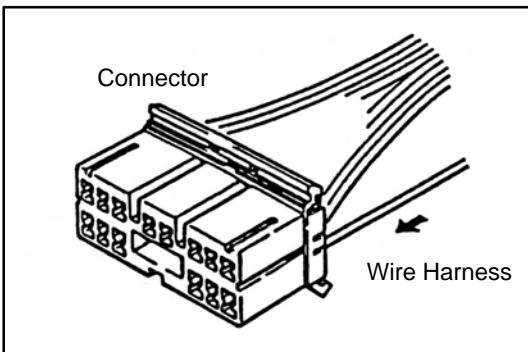
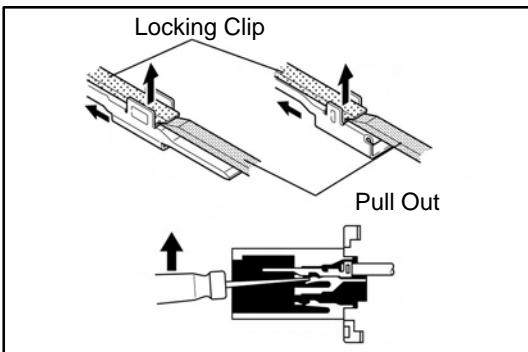
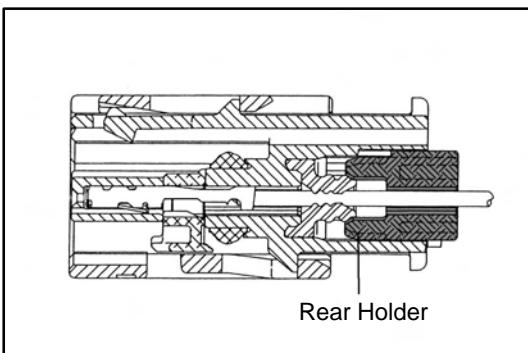


Move Special Tool in the direction of arrow.

**NOTICE:**

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

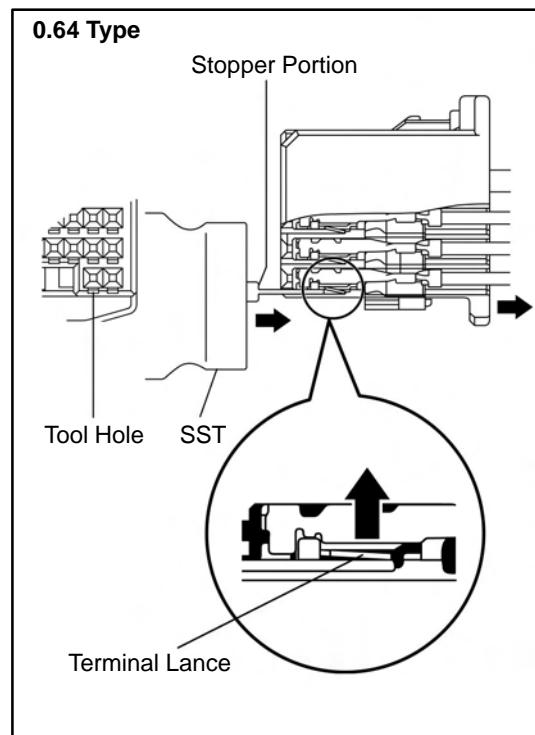
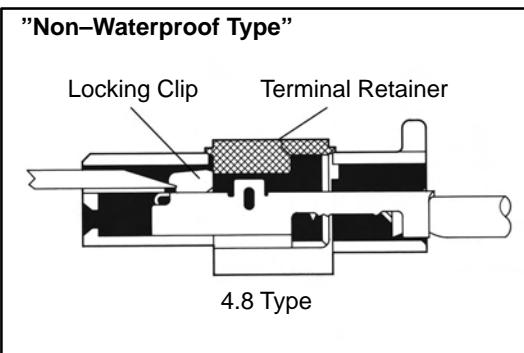
## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT



## 4. Disconnect Terminal from Connector

- Determine the primary locking system from the charts.
  - Lock Located on terminal
  - Lock Located on connector
  - Method of entry and operation
- Push the terminal gently into the connector and hold it in this position.
- Insert the special tool into the connector in the direction shown in the chart.
- 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.
- 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.

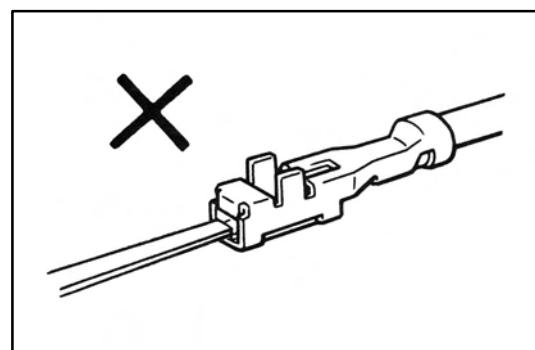
**NOTICE:**

- 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.

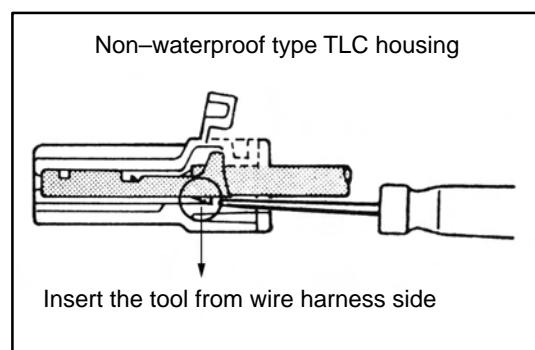
**NOTICE:**

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:**

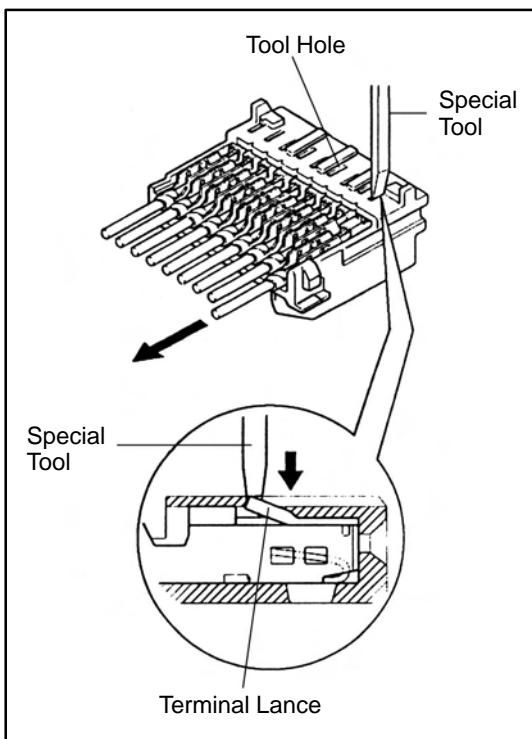
Do not insert the special tool into the female terminal box. If you do so, replace the terminal with the new one whether the terminal is broken or not.



**NOTICE:**

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

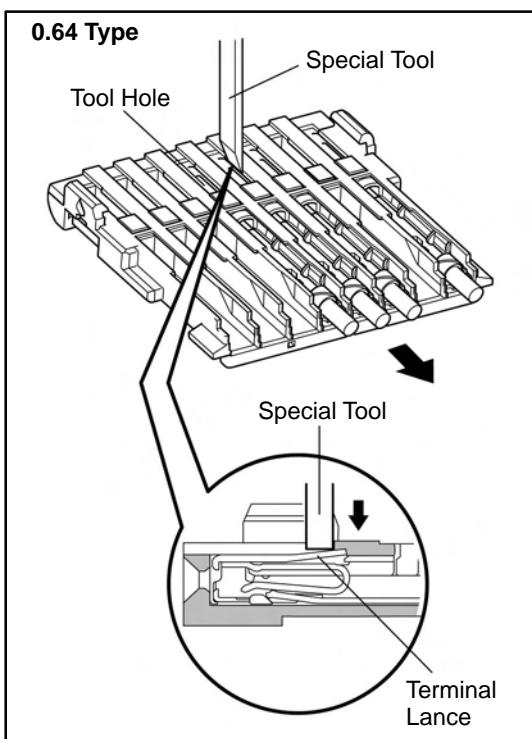
## TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT

**Insulation Displacement Connector Type**

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

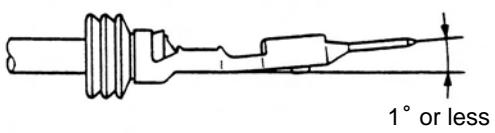
**NOTICE:**

- 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.**

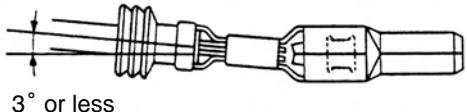


**TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT****Terminal Deformation**

- (1) Terminal Bending in Vertical Direction



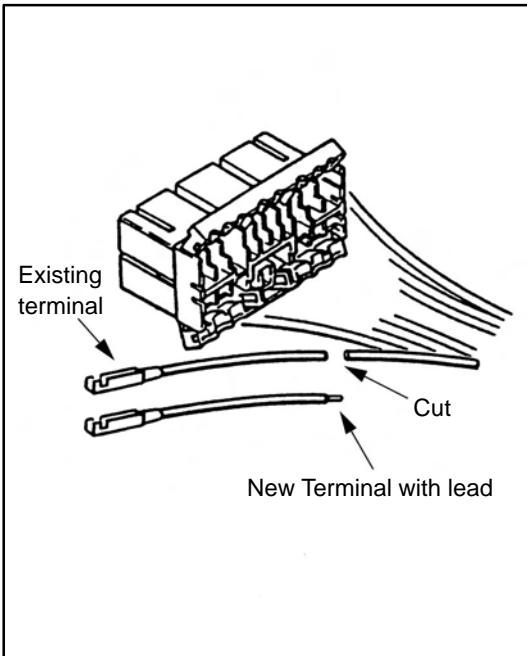
- (2) Terminal Bending in Horizontal Direction



- 5. Inspect the terminal and the connector for damage.**

**NOTE:**

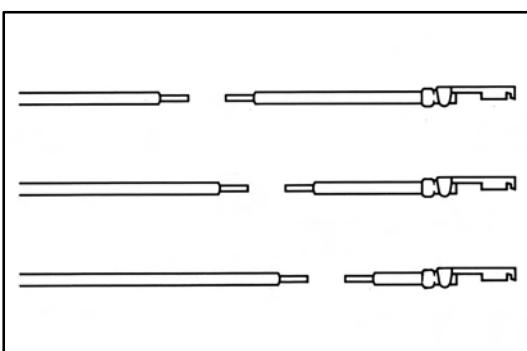
- The locking clip is easily damaged.
- Do not reuse the damaged part.

**TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT****Step 3. Replace the terminal.****1. Cut the Old Terminal from the Harness.**

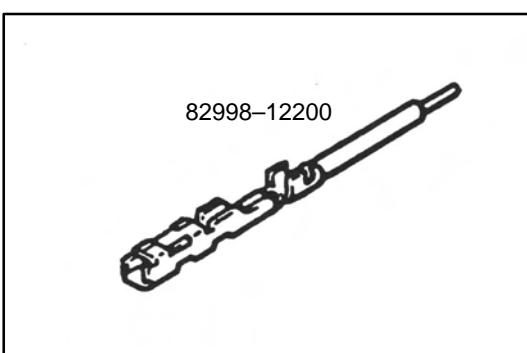
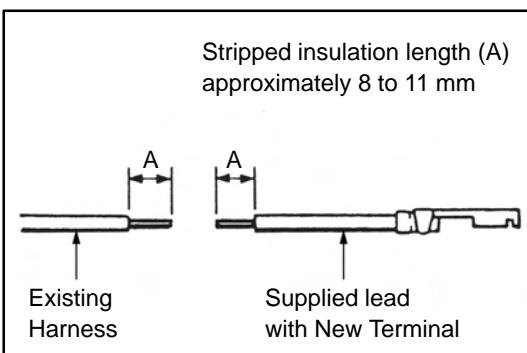
- (a) Use the new wire lead as a guide for proper length.

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.

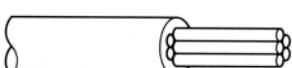


HINT: When connecting a wire harness at three or more spots to the same connector, cut the wire harness as shown on the left.

**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.

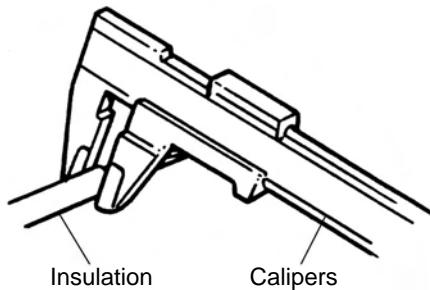
## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT

**Good Example:****Bad Example:****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.

**Wire Harness Outside Diameter****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.

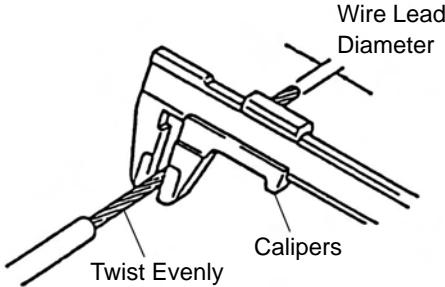
- When size is based on the nominal size of the wire lead.

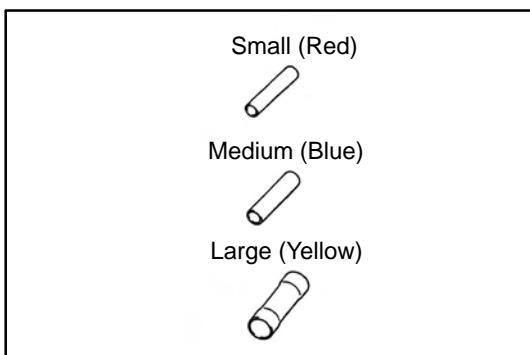
Measure the diameter of the wire lead by placing a measuring device, such as a micrometer or Vernier Caliper, across the diameter of the wire lead and taking a reading.

**HINT:**

To calculate the "nominal size" of wire

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

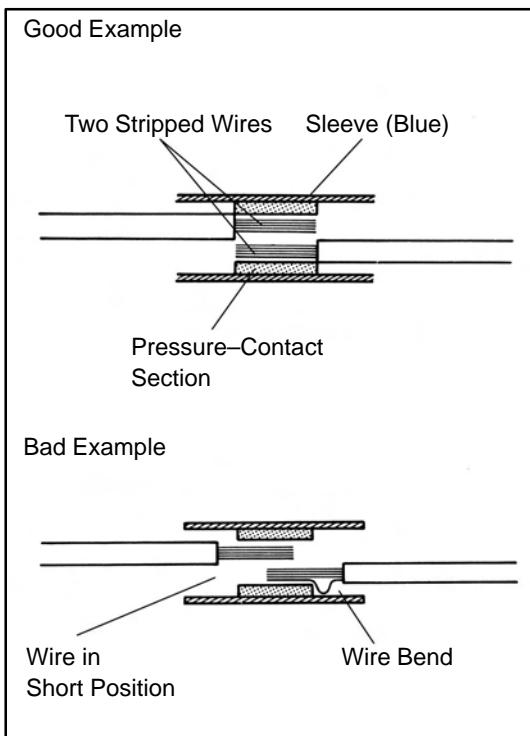
**Nominal Size of the Wire**

**TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT**

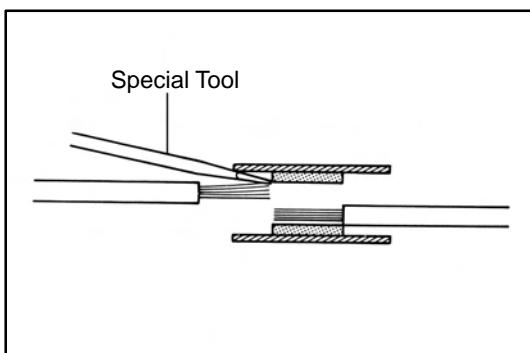
(b) Use the table to determine proper sleeve size

	<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

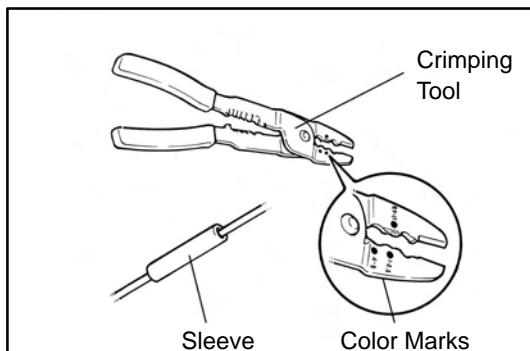
**5. Crimp the Replacement Terminal Lead to the Harness Lead.**

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



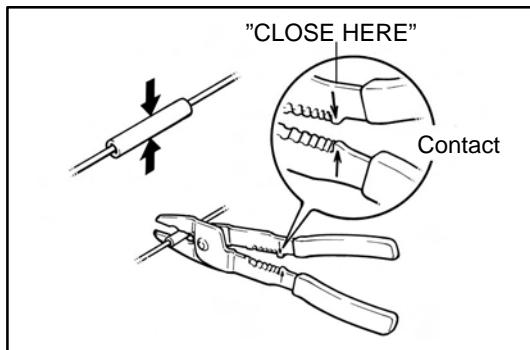
HINT: You might find it easier if you use a miniature special tool as a guide as you insert wires into the sleeve.

## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT



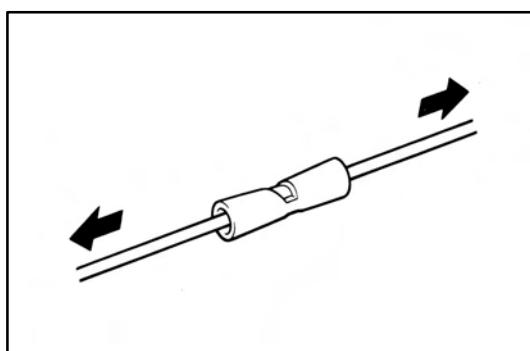
- (b) The crimping tool (AMP Part No. 169060) has color marks on it. Place the sleeve in the correct section of the tool according to the color of the sleeve itself.

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".

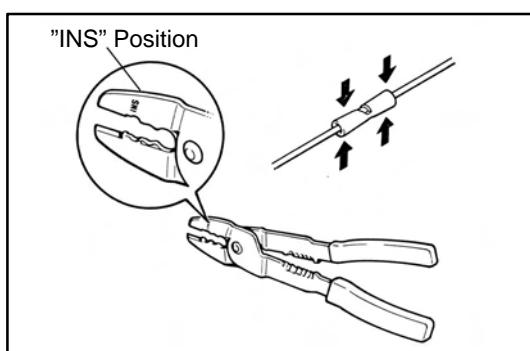
HINT: Check to see that the sleeve and wires are still in the correct position before closing the crimping tool ends with steady pressure.



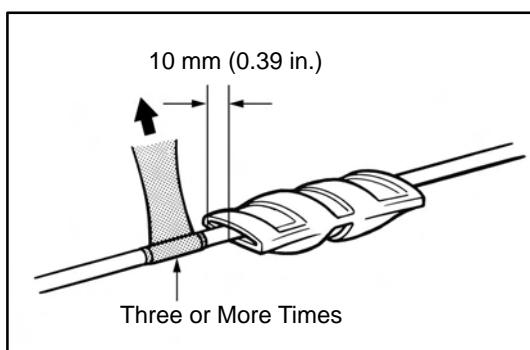
- (d) Pull the joined wires to either end. Make sure that they are joined firmly by the sleeve.

**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.

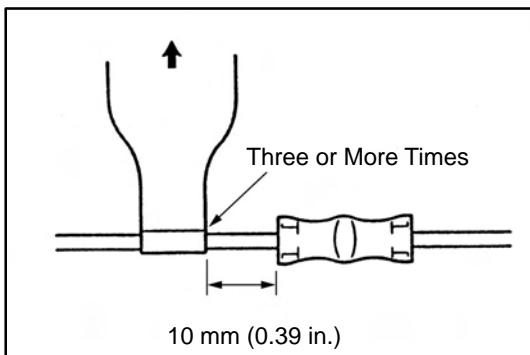


## 6. Protect Joined Section

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

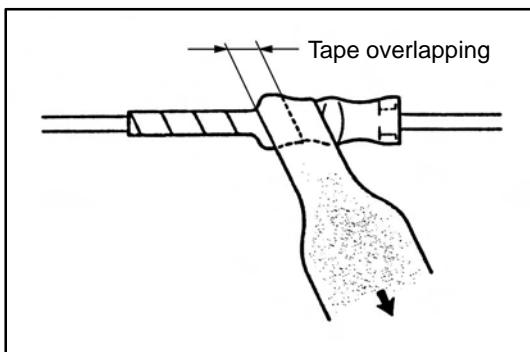
NOTE: This job is required in repairs of the engine compartment, under the floor and other moisture entry positions.

## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT

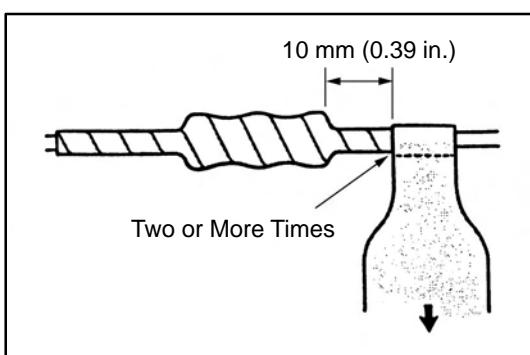


## HINT:

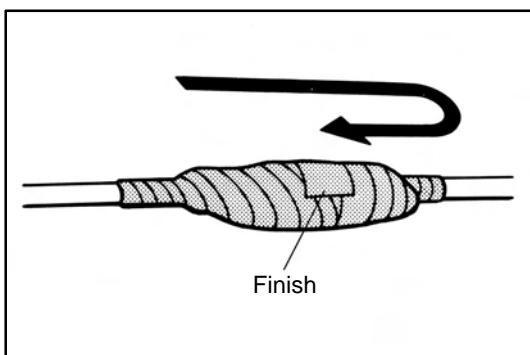
- Before starting the operation, thoroughly wipe dirt and grease off the sections to be joined.
  - If the adhesive surfaces of two tapes come in contact they will stick together and will not come apart, so do not remove the backing film except when using the tape.
  - Do not let oil and dust, etc. get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

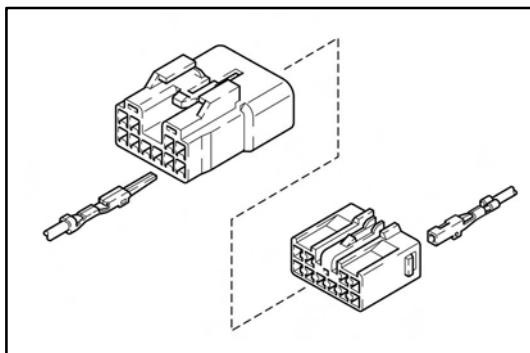


- Wrap the remaining part of the sleeve with half of the tape overlapping at each turn.

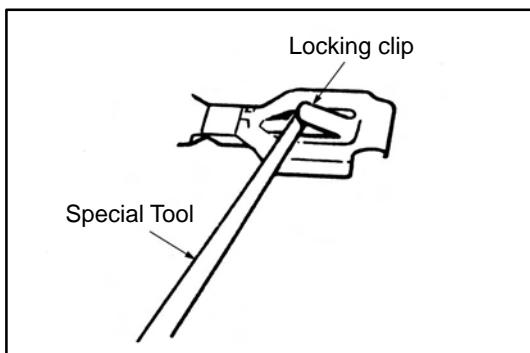


- Firmly wrap the tape two times or more about 10 mm (0.39 in.) from the other end of the sleeve, then wrap the tape back towards the start again and firmly finish winding the tape around the center of the sleeve.



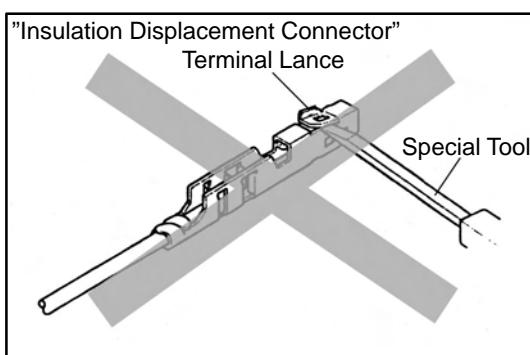
**TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT****Step 4. Install the terminal into the connector.****HINT:**

- (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.

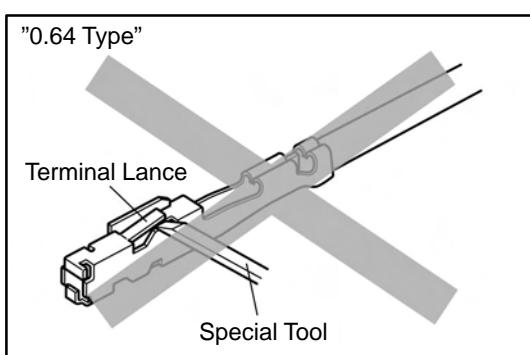


**NOTE:** If reusing a terminal, check that the locking clip is still in good condition and in the proper position.

- (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.**

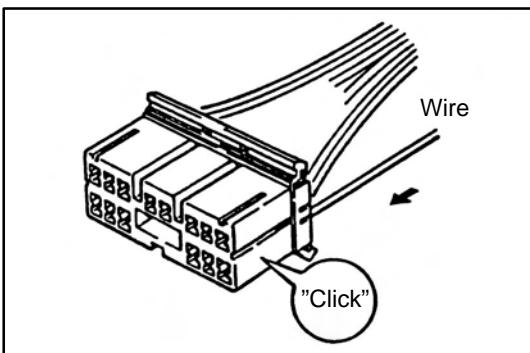
**Splash Proof Type Connector****NOTICE:**

- 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.

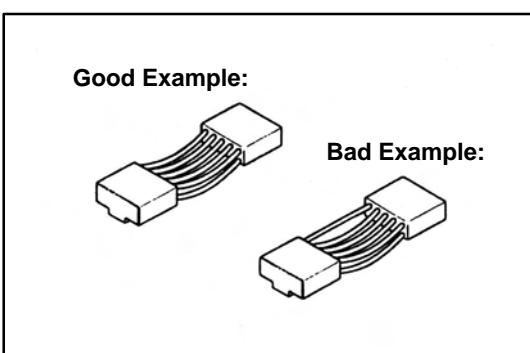
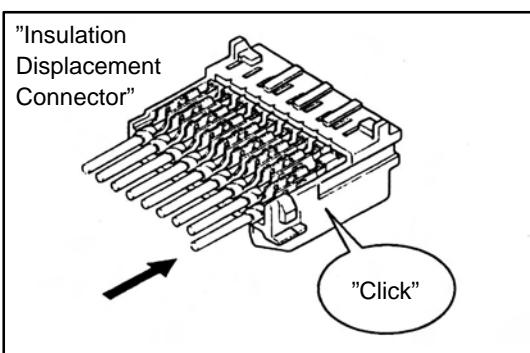
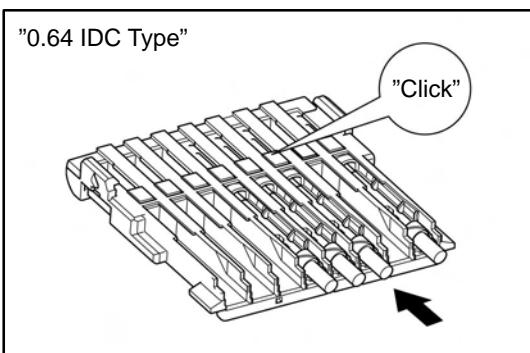
- It is free of deformation and damage
- It is free of adherents such as rubber plug material (wire seal)
- Replace any deformed terminal.

## 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".



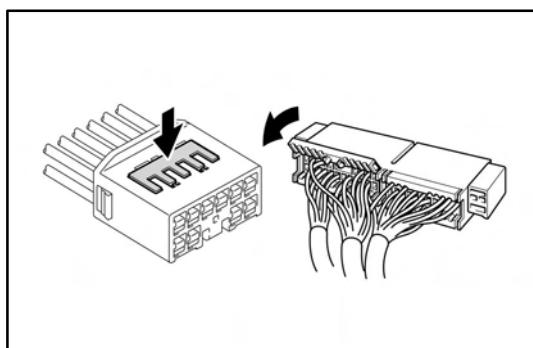
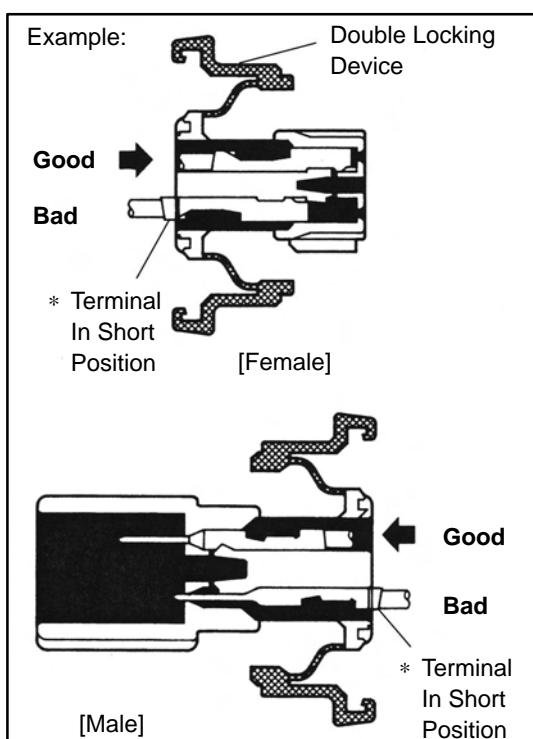
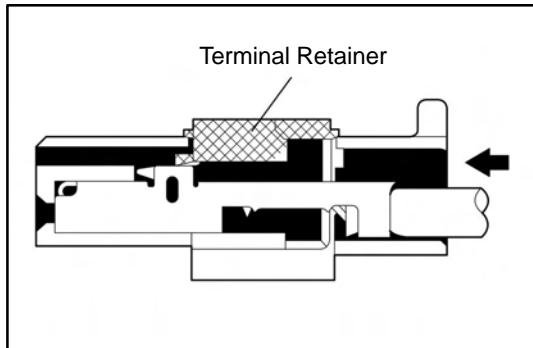
**NOTICE:**

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

## TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT

**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)

- Insert the terminal.

HINT:

- Make sure the terminal is positioned correctly.
  - Insert the terminal with terminal retainer in the temporary lock position.
- Insert the terminal until the locking clip locks firmly.

HINT:

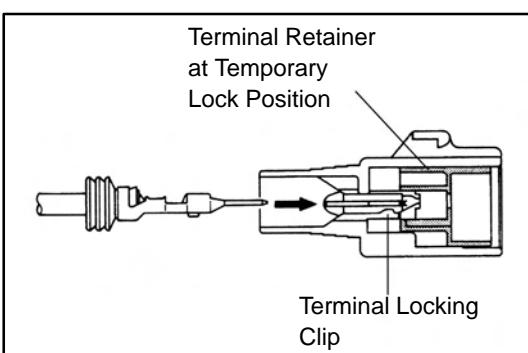
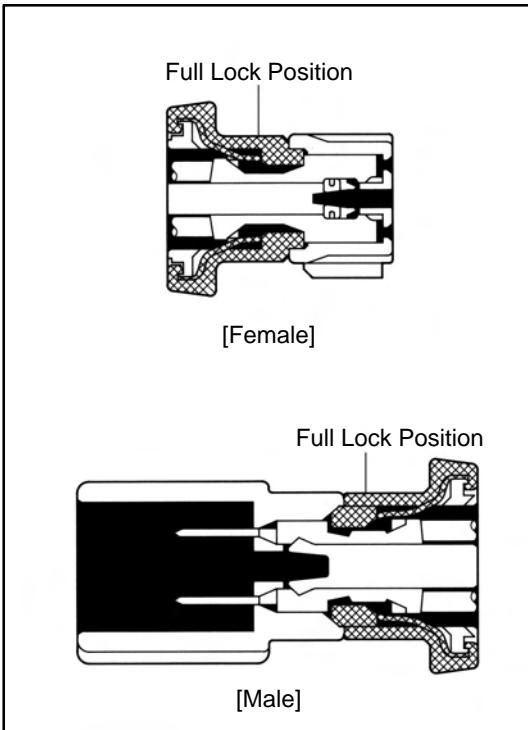
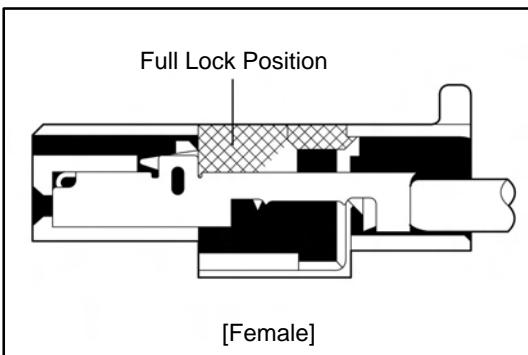
- Pull the terminal back gently to check whether it is locked correctly.
- If it cannot be inserted easily, check the terminal and the connector for damage.

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.

- 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.

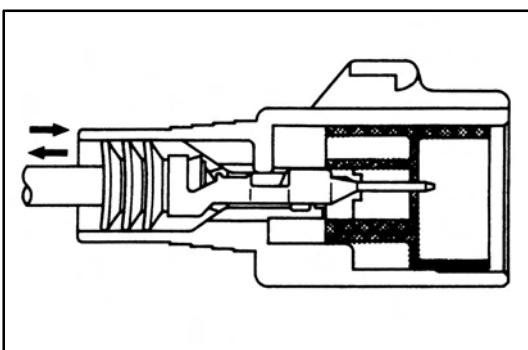
HINT:

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:

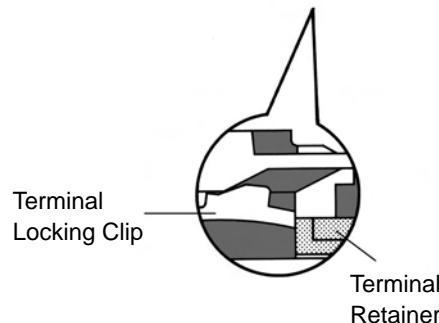
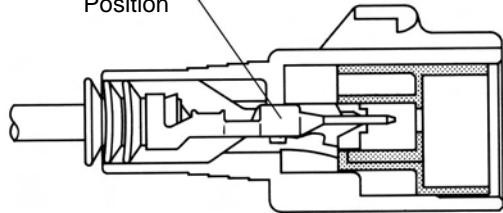
1. Pull the terminal back gently to check whether it is locked correctly.
2. If it cannot be inserted easily, check the terminal and the connector for damage.



## TERMINAL AND CONNECTOR REPAIR—TERMINAL REPLACEMENT

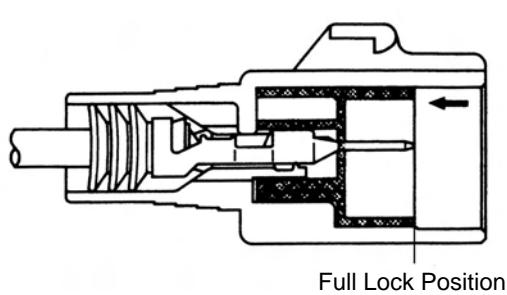
Bad Example:

Terminal in Short Position



**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.

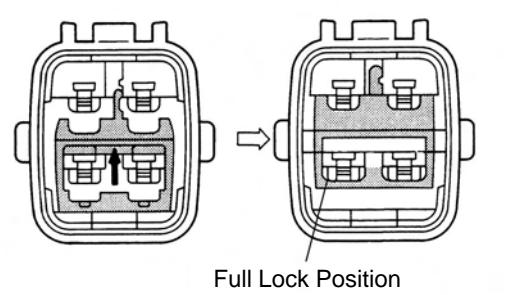
[Case 1]



(c) "For Case 1"

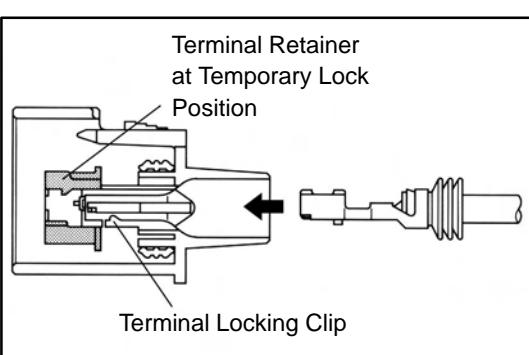
Push the terminal retainer in to the full lock position.

[Case 2]



"For Case 2"

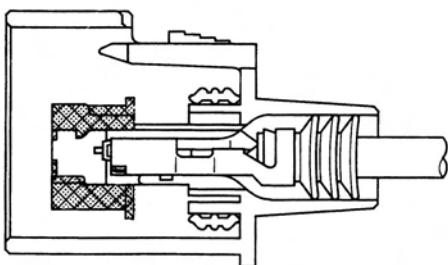
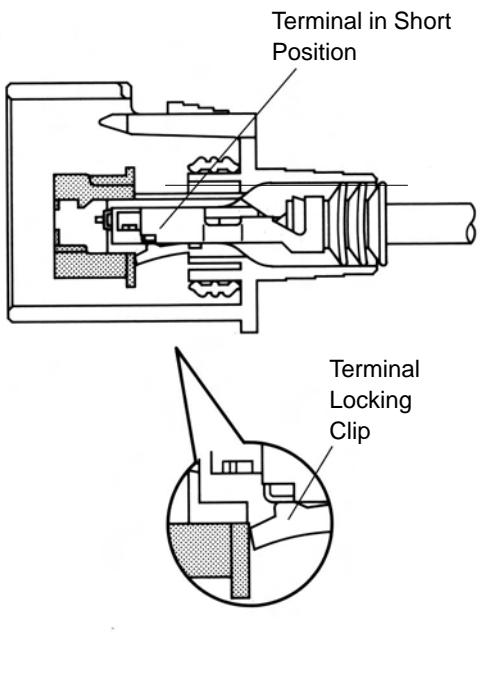
Raise the terminal retainer up to the full lock position.

**(For Female Connector)**

- Insert the terminal.

**HINT:**

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

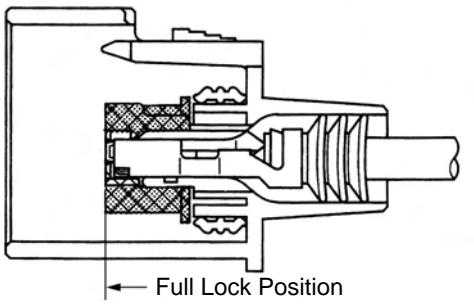
**TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT****Bad Example:**

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

HINT:

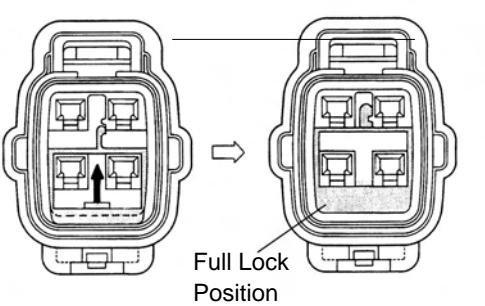
1. Pull the terminal back gently to check whether it is locked correctly.
2. If it cannot be inserted easily, check the terminal and the connector for damage.

**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.

**[Case 1]**

- (c) "For Case 1"

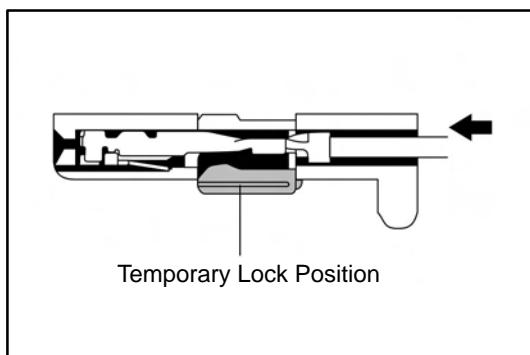
Push the terminal retainer in to the full lock position.

**[Case 2]**

- "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:

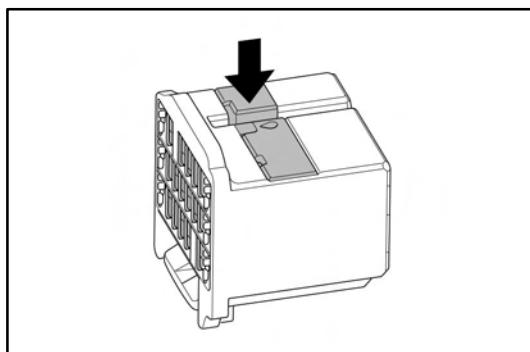
1. Make sure the terminal is positioned correctly.
2. Insert the terminal with terminal retainer in the temporary lock position.

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

## HINT:

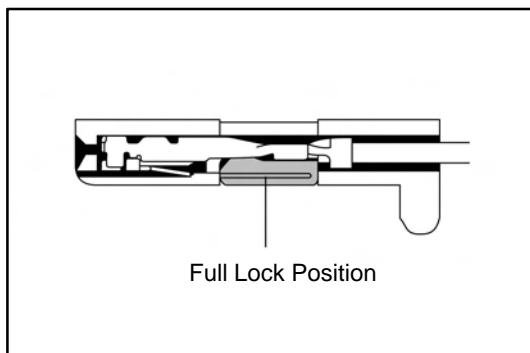
1. Pull the terminal back gently to check whether it is locked correctly.
2. If it cannot be inserted easily, check the terminal and the connector for damage.

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.



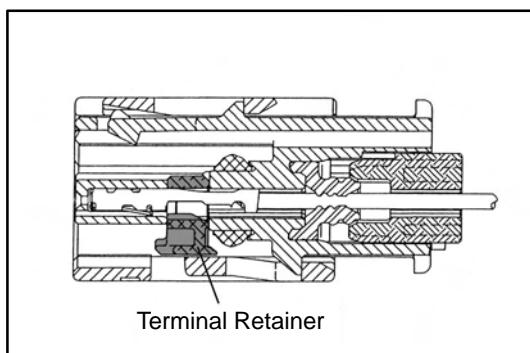
- (c) Close terminal retainer.

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

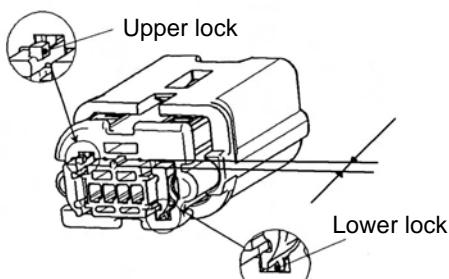


## Type D (For 0.64 Splash Proof Type Connector)

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



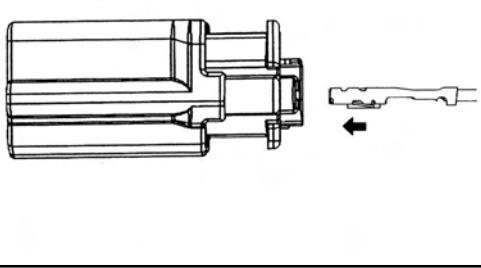
## TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT



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

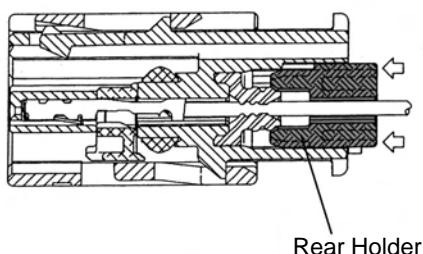
**NOTICE:**

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

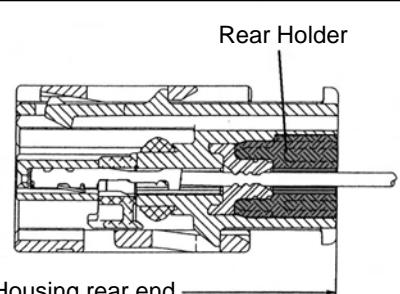


- (c) Insert the terminal fully into the housing until it is locked.

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

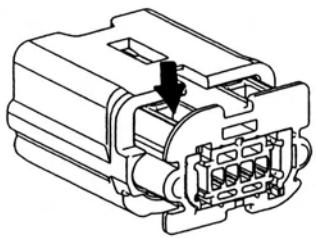


- (d) Set Rear holder to locked position.  
Push Rear holder in the direction of arrow until it is locked.



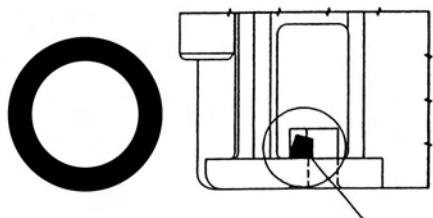
- (e) Verify that Rear holder is at the specified position.  
The rear end of Rear holder is flush with the rear end of Housing.

## TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT

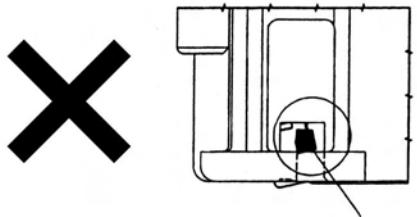


Lock check position, upper

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

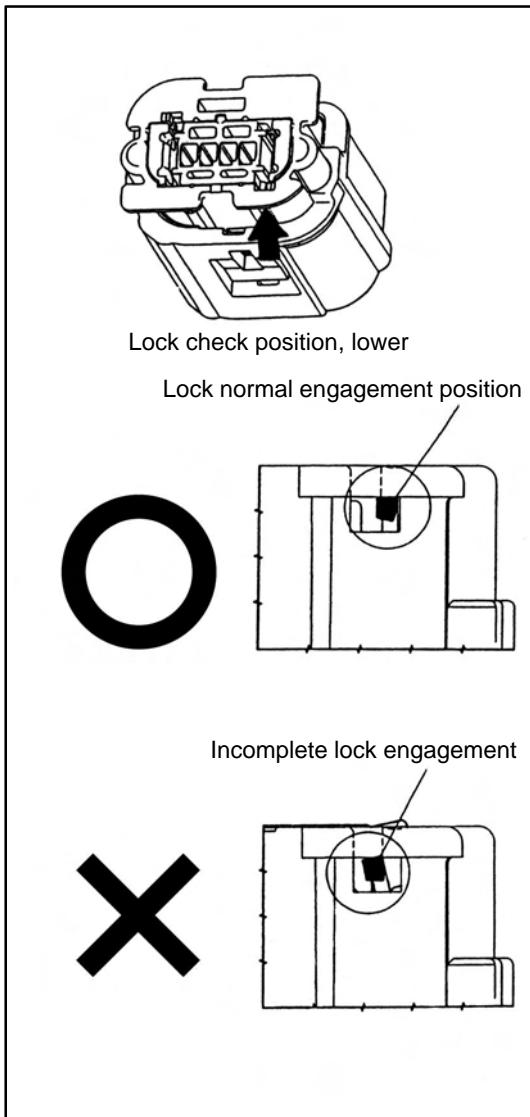


Lock normal engagement position

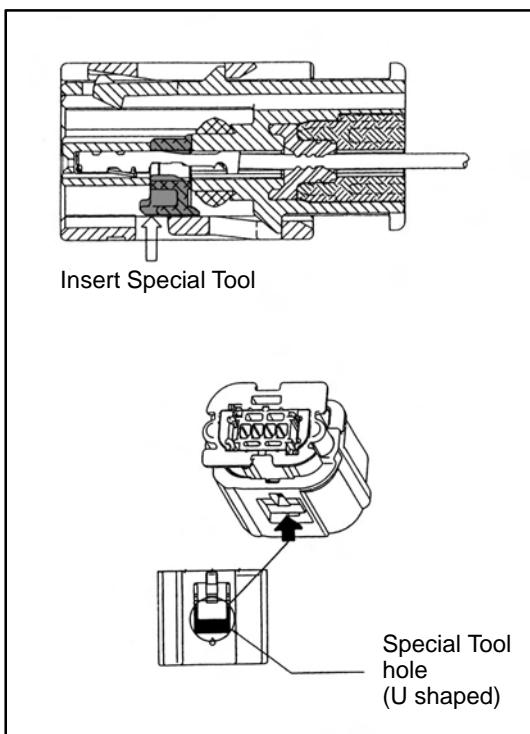


Incomplete lock engagement

## TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT



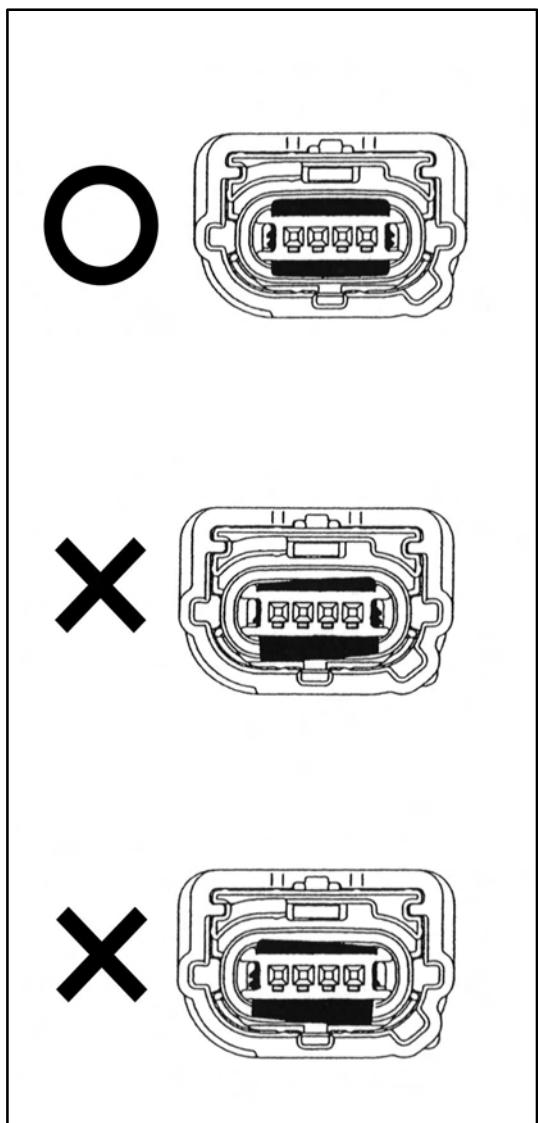
Verify that the lock (lower side) is at the specified position under the locked status.



- (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

---



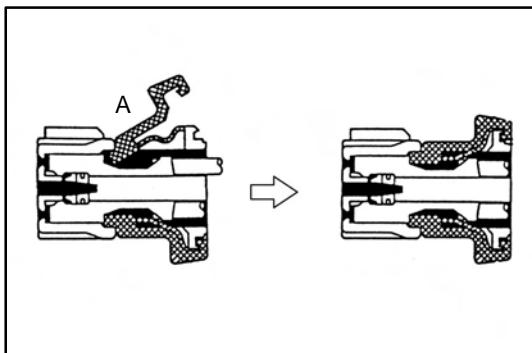
- (g) Verify that Terminal retainer is inserted to the specified position.

**NOTICE:**

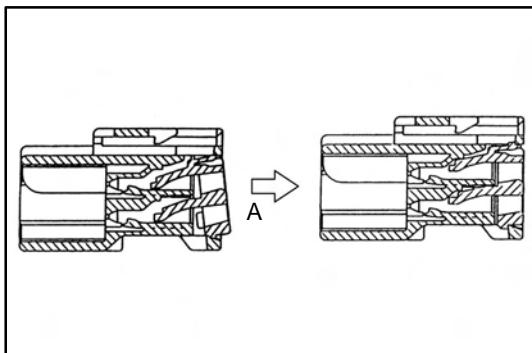
If Terminal retainer is stopped at its middle of insertion, holding wire, push Terminal to help it for full insertion.

**TERMINAL AND CONNECTOR REPAIR-TERMINAL REPLACEMENT****SPECIAL EXAMPLE**

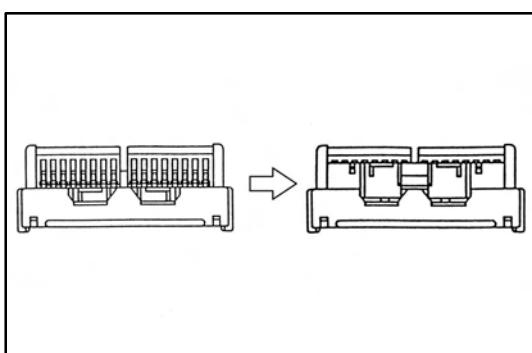
- First fit the section A.



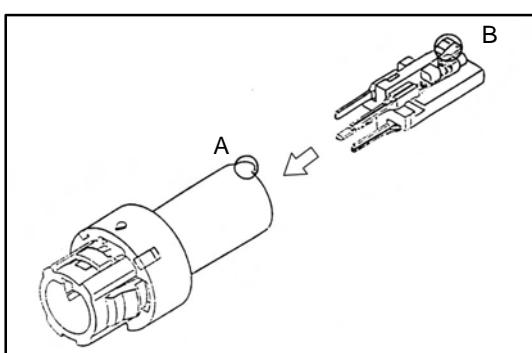
- Install the lock of the section A first.



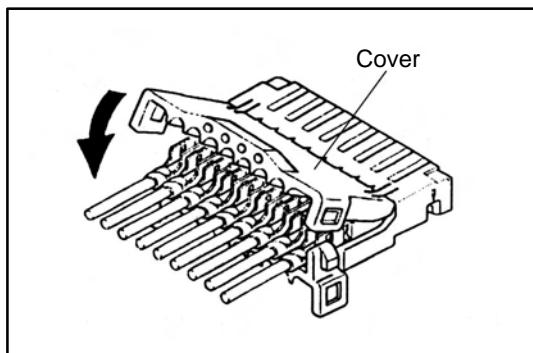
- Install the lock of the retainer and pull the white cover until you hear a click sound.



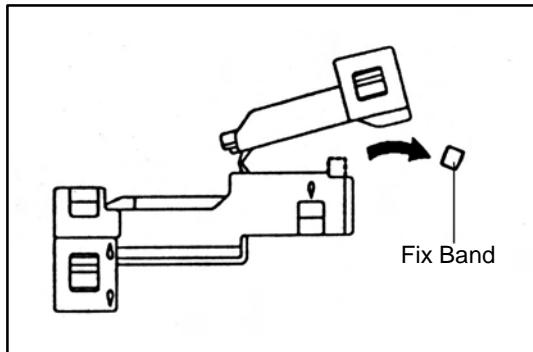
- Install the convex part (A) of the outer part correctly to the section B of the inner part.



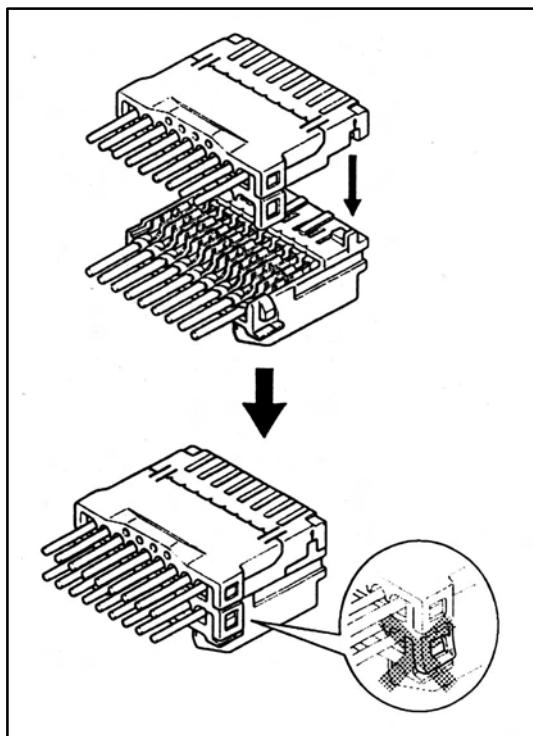
## TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT

**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.

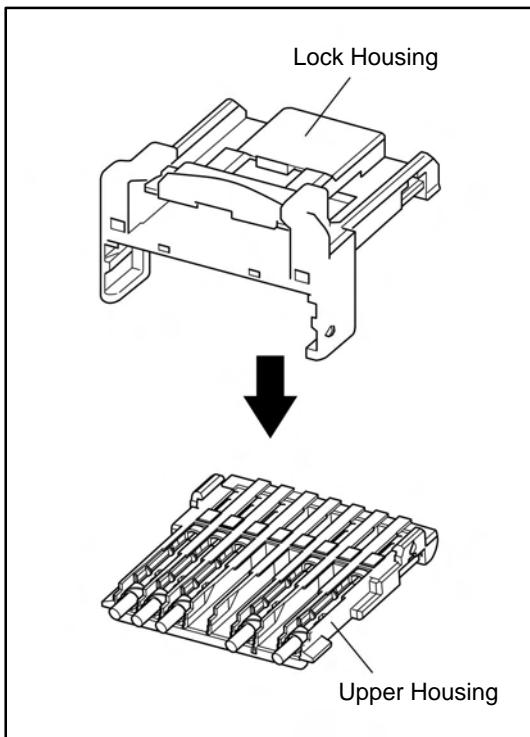
**UNITE CONNECTOR**

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.

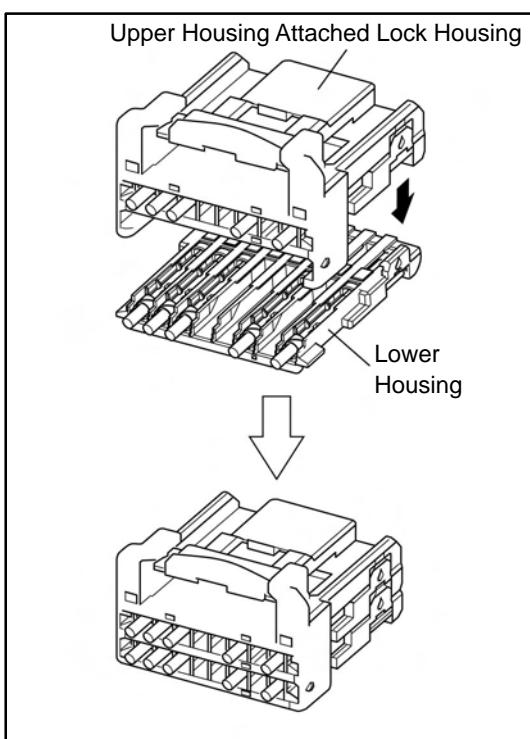
## TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT

**Insulation Displacement Connector (0.64 Type)**

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

**NOTICE:**

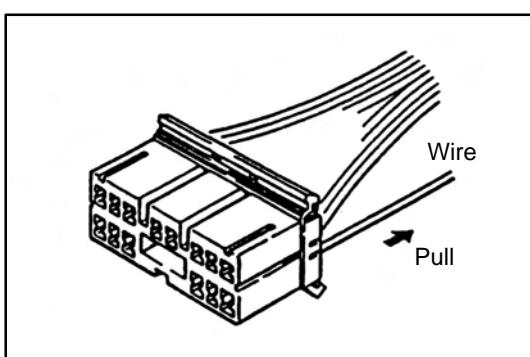
- Securely Lock it.
- Be careful not to mistake the upper housing and lower housing when putting together.



- (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:**

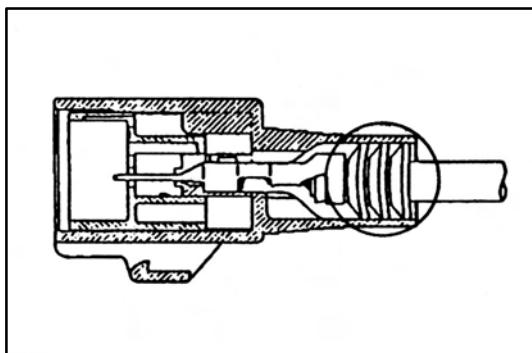
- Afteruniting, securely lock it for not leaving the rear lock arm deformed.
- Make sure that the terminals will not become loose by pulling the wires lightly.
- Be careful not to mistake the upper housing and lower housing when putting together.



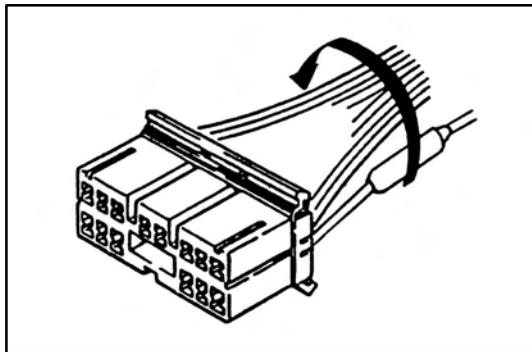
3. When properly installed, pulling gently on the wire lead will prove the terminal is locked in the connector.

TERMINAL AND CONNECTOR REPAIR–TERMINAL REPLACEMENT

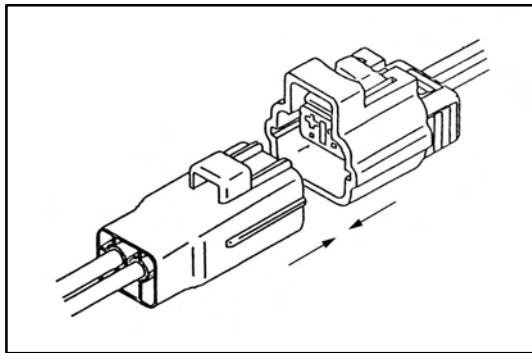
---

**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**

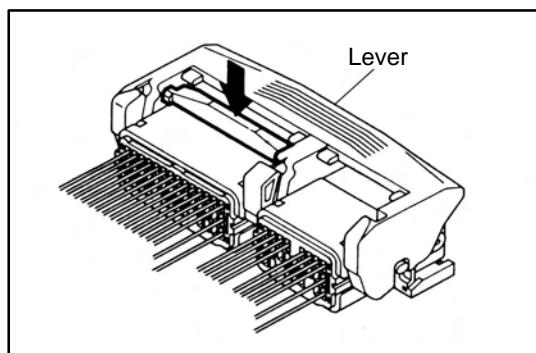
If the wire is not in the conduit, or secured by other means, wrap vinyl tape around the bundle to keep it together with the other wires.

**5. Connect Connector**

- Fit the male connector to the female terminal.

**NOTICE:**

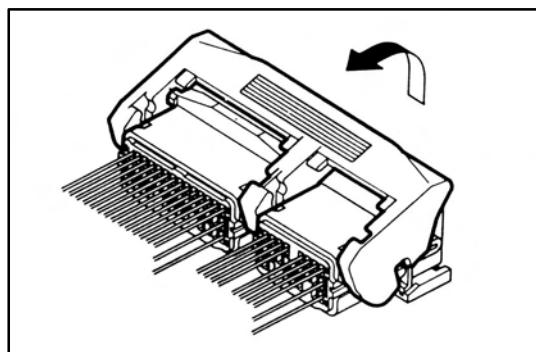
- Do not twist the connector when fitting.
- Insert it until fully locked.

**TERMINAL AND CONNECTOR REPAIR—HOW TO INSTALL AND REMOVE SPECIAL CONNECTORS****HOW TO INSTALL AND REMOVE SPECIAL CONNECTORS****Low Fit and Lever Type Connector**

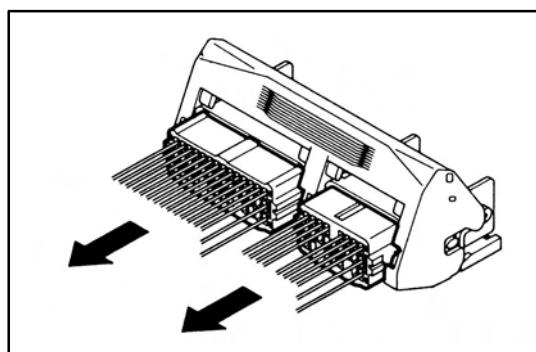
[Case 1]

**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.



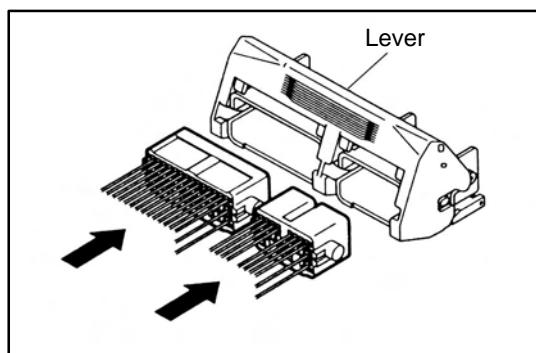
- (3) Lift the lever up until it stops.



- (4) Cut the connection of the connector.

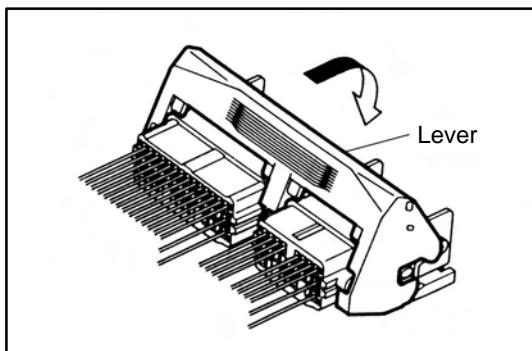
**NOTICE:**

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

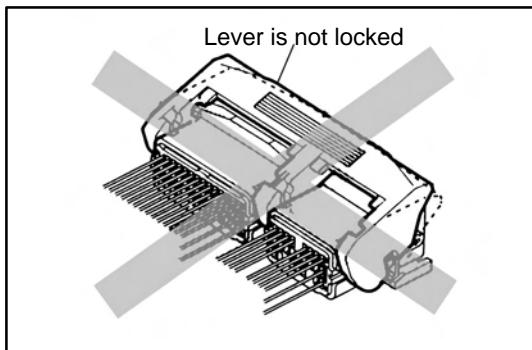
**2. Connect the connector**

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

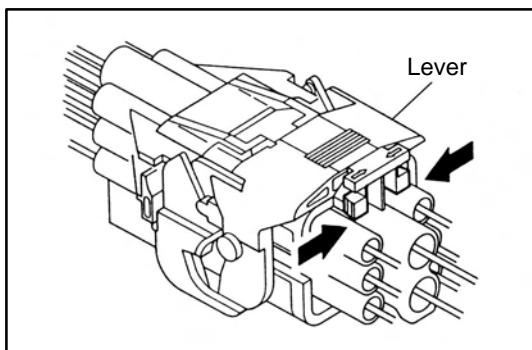
**HINT:** If the lever is locked at the lower position, follow the procedure [Case 1]. (1) to (3) and lift the lever up fully.

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

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



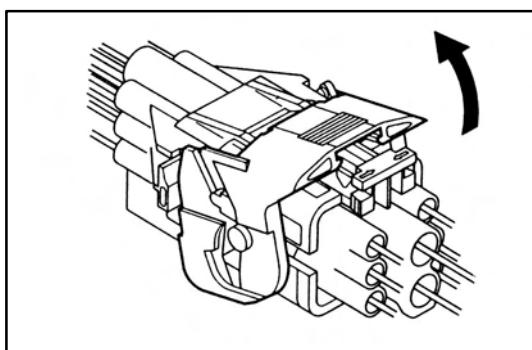
- (3) Confirm that the lever is securely locked.



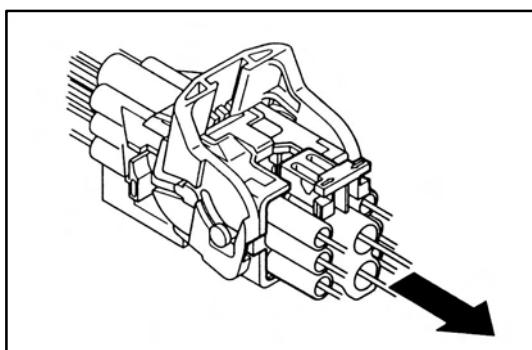
[Case 2]

**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.



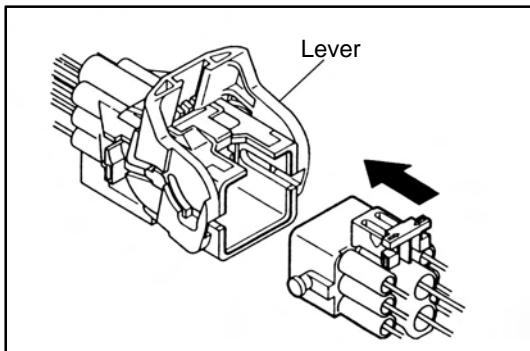
- (3) Lift the lever up fully.



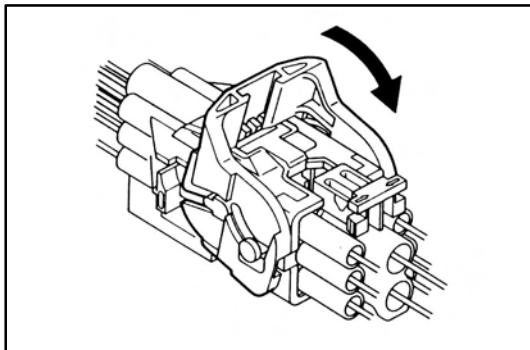
- (4) Cut the connection of the connector.

**NOTICE:**

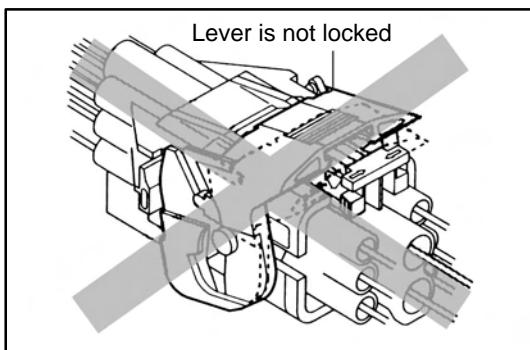
**Do not hold the wire harness to pull it.**

**TERMINAL AND CONNECTOR REPAIR—HOW TO INSTALL AND REMOVE SPECIAL CONNECTORS****2. Connect the connector**

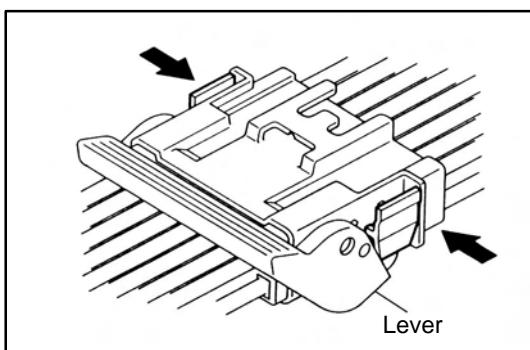
- (1) Connect the connector in the condition that the lever is fully lifted up.



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



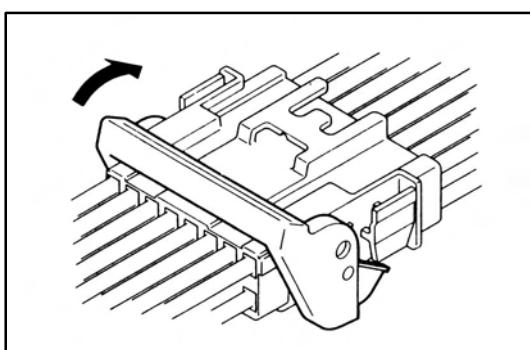
- (3) Confirm that the lever is securely locked.



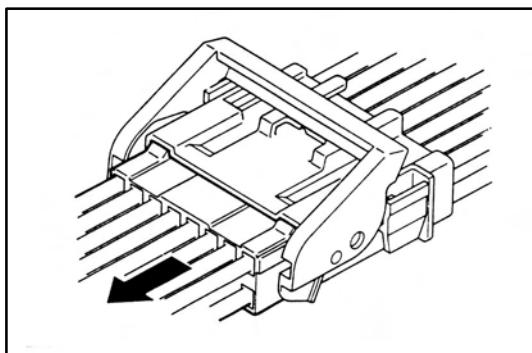
[Case 3]

**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.



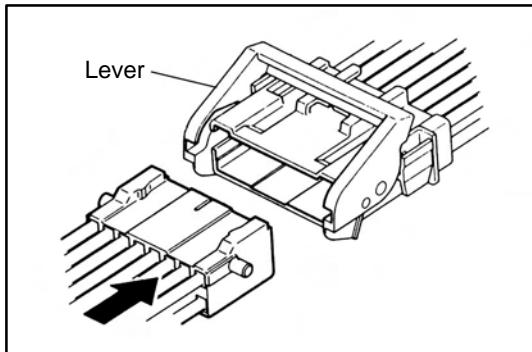
- (3) Lift the lever up fully.

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

- (4) Cut the connection of the connector.

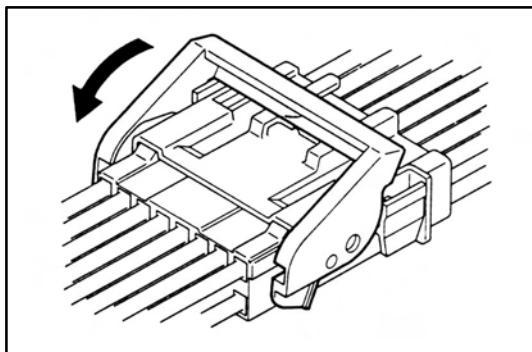
**NOTICE:**

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

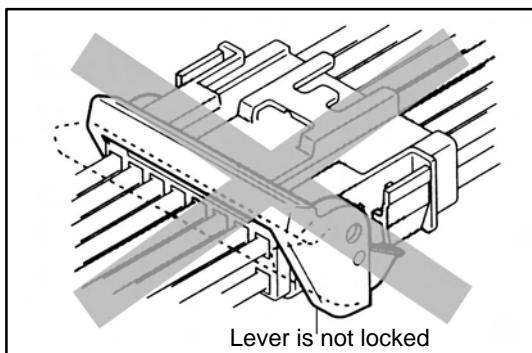
**2. Connect the connector**

- (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.

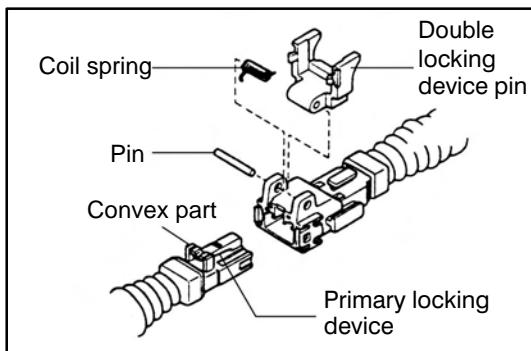


- (2) Hold the connector to prevent it from slip off and push it down until you hear a click to lock it.



- (3) Confirm that the lever is securely fitted

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



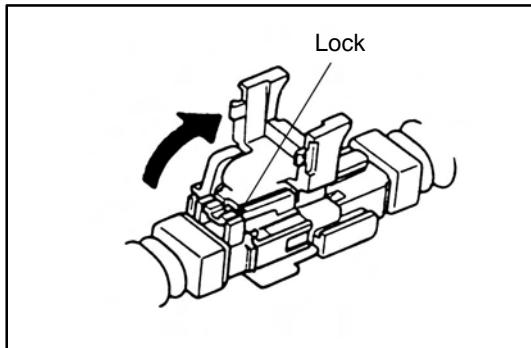
### The connector with secondary locking device

#### 1. Area used

- Wire harness for SRS airbag deployment

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

- (1) Release the double locking.



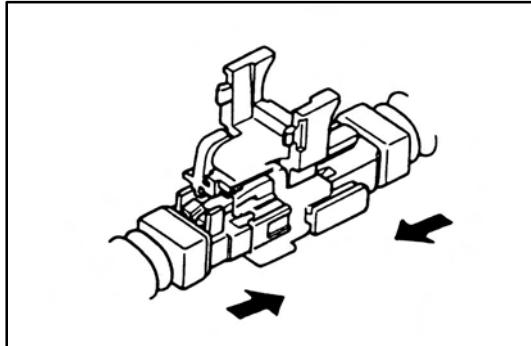
- (2) Release the primary locking and separate the connector.

**NOTICE:**

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

#### 3. Connect the connector

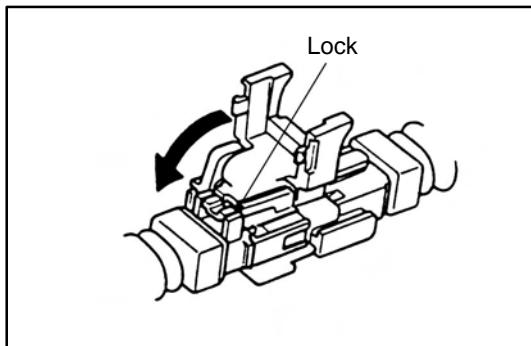
- (1) Install the primary locking device and connect the connector.



- (2) Install the double locking device.

**NOTICE:**

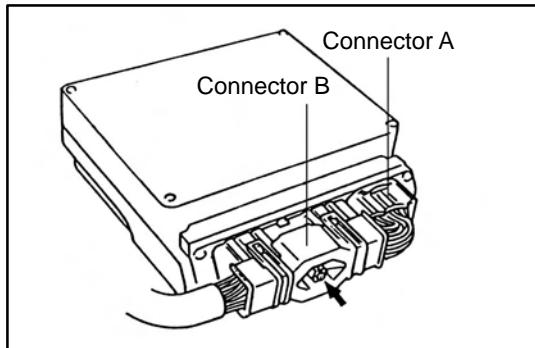
**The double locking device can not be installed unless the primary locking device is installed.**



### Connector fixed by bolts

#### 1. Area used

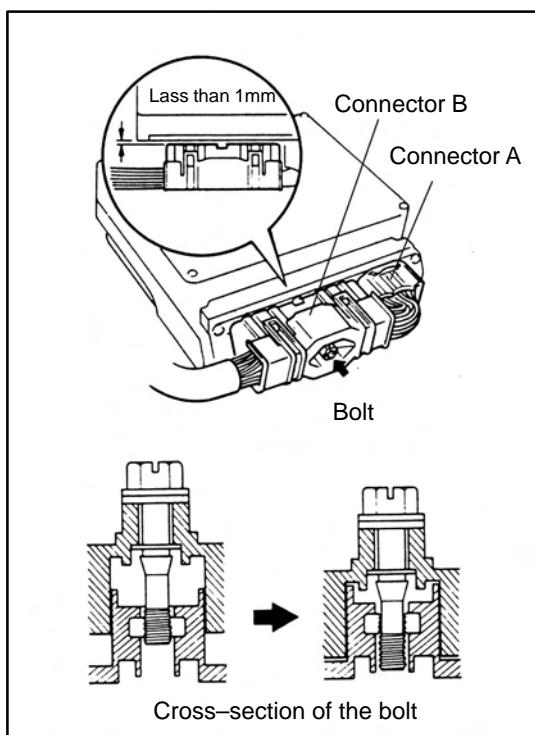
- Engine control computer harness



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

- (1) Remove the connector A.
- (2) Loose 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.



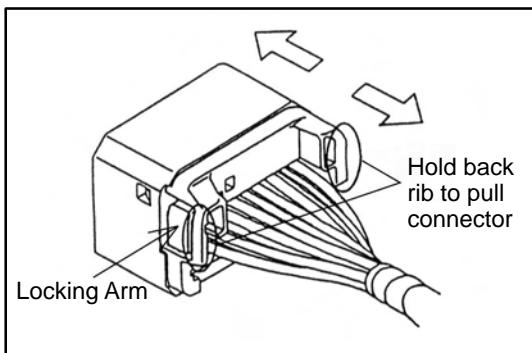
#### 3. Connection of the connector

- (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.

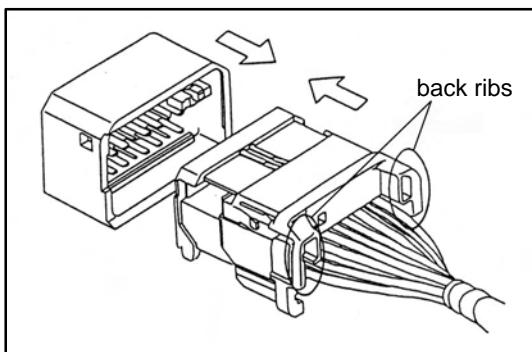
**TERMINAL AND CONNECTOR REPAIR—HOW TO INSTALL AND REMOVE SPECIAL CONNECTORS****1. Cut the connection of the connector**

- (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.

**memo**

---

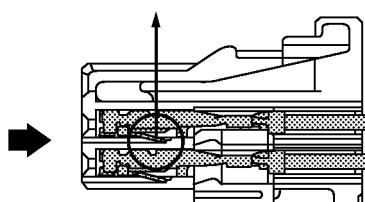
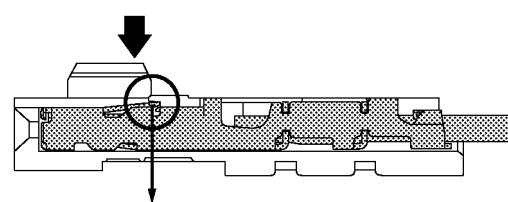
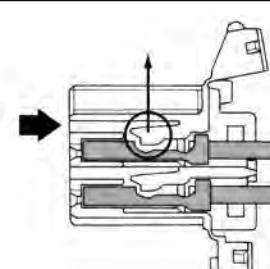
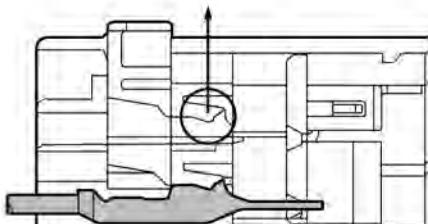
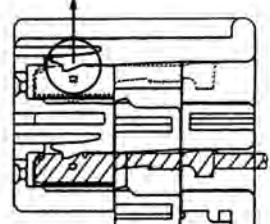
---

# TABLE OF HOUSING CROSS SECTION

C

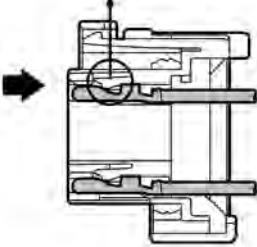
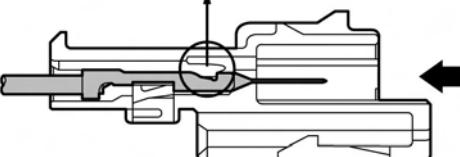
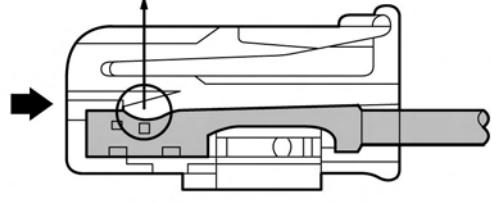
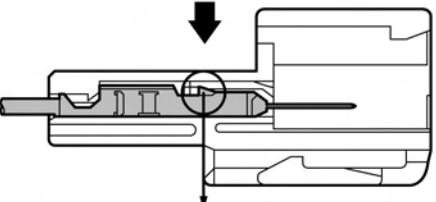
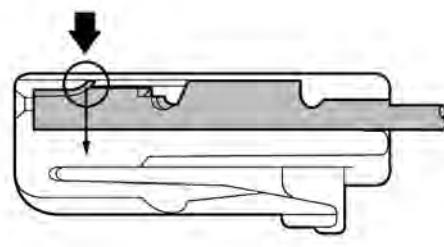
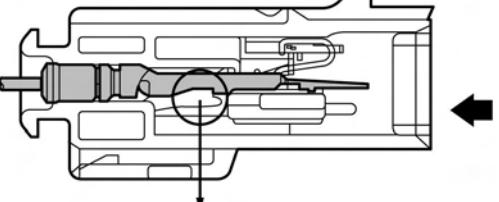
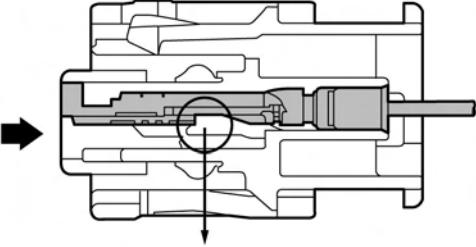
C

## TABLE OF HOUSING CROSS SECTION

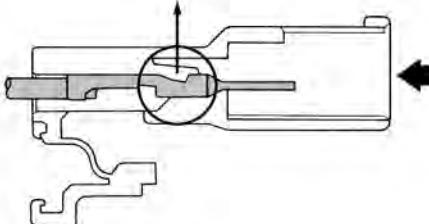
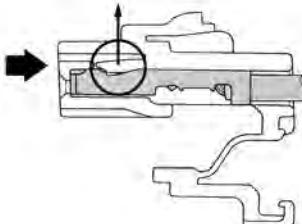
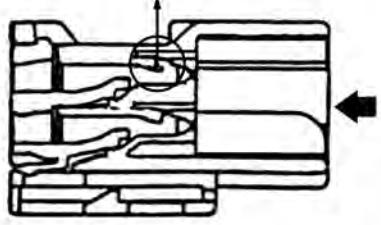
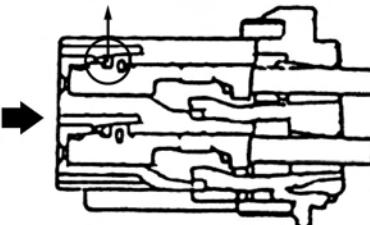
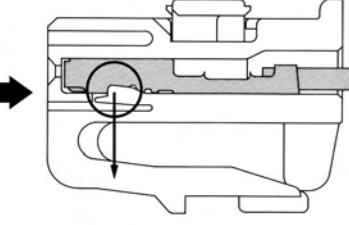
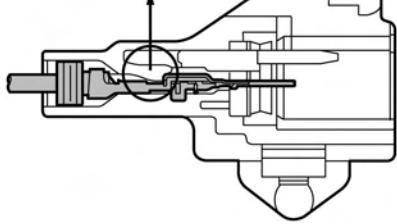
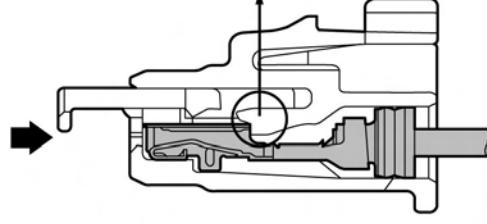
Type			 : Position of the lance  : Direction of lock released  : Direction of the special tool inserted
	Male	Female	
0.64			 (Double Lock Type) [Terminal Lance]
0.64 IDC			 [Terminal Lance]
1.0			 (Double Lock Type) [Housing Lance]
1.0II Non-waterproof Type	 (Double Lock Type) [Housing Lance]	 (Double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

C

## TABLE OF HOUSING CROSS SECTION

Type		
	Male	Female
1.0II Waterproof Type		 [ Housing Lance ]
1.0III 1.0IV Non-waterproof Type	 (Double Lock Type) [Housing Lance]	 (Double Lock Type) [Housing Lance]
1.0III IDC	 [ Terminal Lance ]	 [ Terminal Lance ]
1.0III Waterproof Type	 (Double Lock Type) [Housing Lance]	 (Double Lock Type) [Housing Lance]

## 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	 (Double Lock Type) [Housing Lance]	 (Double Lock Type) [Housing Lance]		
1.3 Non-waterproof Type	 (Double Lock Type) [Housing Lance]	 (Double Lock Type) [Housing Lance]		
1.3 Non-waterproof Type			 (Double Lock Type) [Housing Lance]	
1.3 Waterproof Type	 (Double Lock Type) [Housing Lance]	 (Double Lock Type) [Housing Lance]		

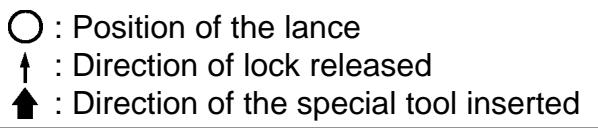
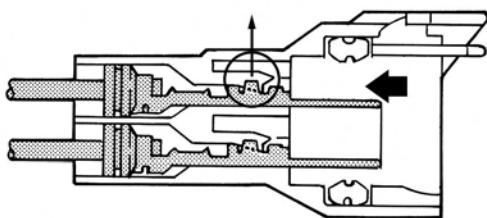
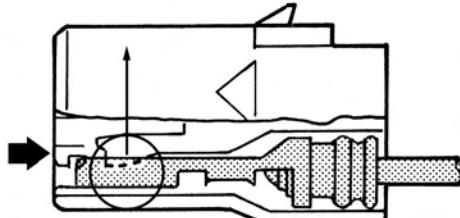
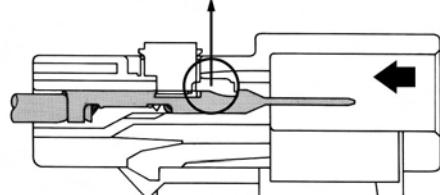
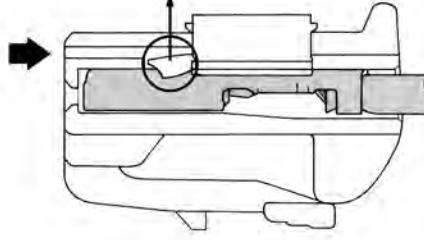
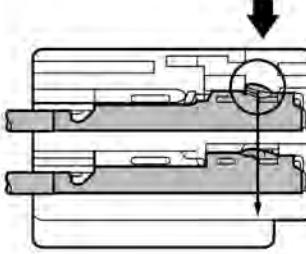
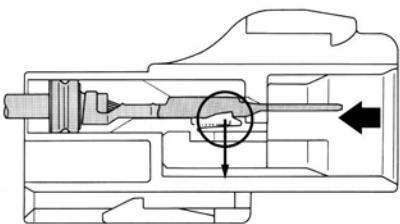
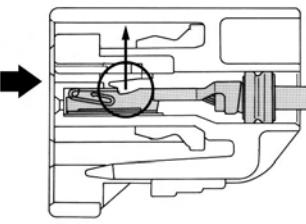
C

## TABLE OF HOUSING CROSS SECTION

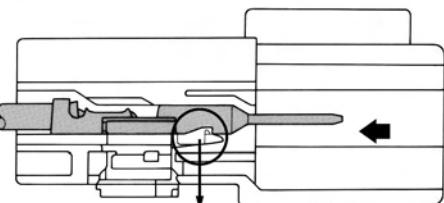
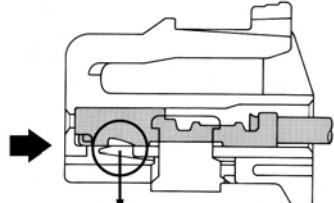
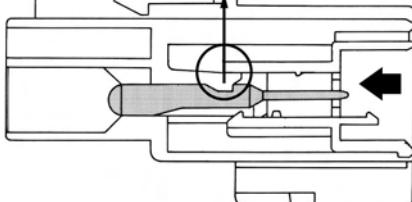
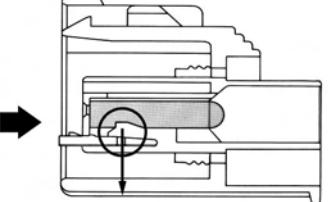
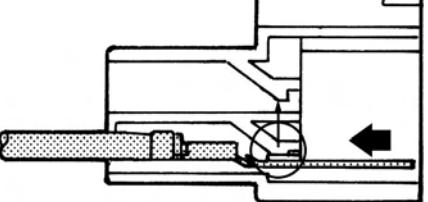
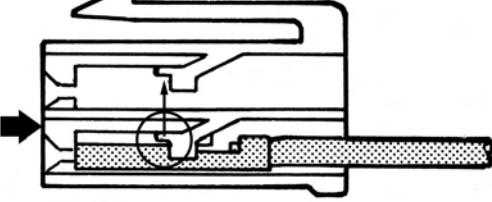
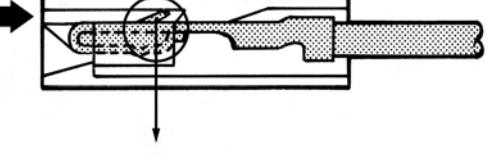
Type			Position of the lance Direction of lock released Direction of the special tool inserted
	Male	Female	
1.8 Non-waterproof Type	 (Double Lock Type) [ Housing Lance ]	 (Double Lock Type) [ Housing Lance ]	
1.8 Waterproof Type	 (Double Lock Type) [ Housing Lance ]	 (Double Lock Type) [ Housing Lance ]	
1.8II	 (Double Lock Type) [ Housing Lance ]	 (Double Lock Type) [ Housing Lance ]	
2.3 Non-waterproof Type	 [ Housing Lance ]	 [ Housing Lance ]	

## TABLE OF HOUSING CROSS SECTION

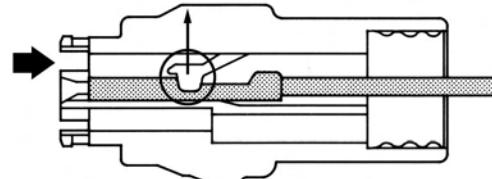
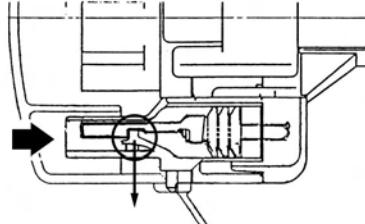
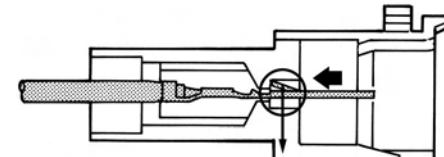
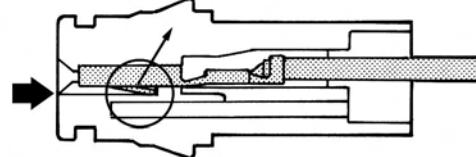
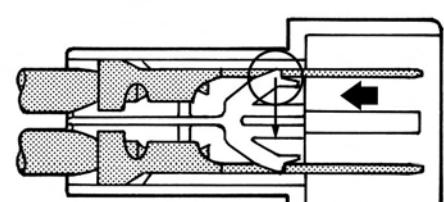
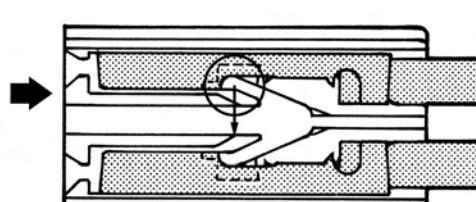
C

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

## TABLE OF HOUSING CROSS SECTION

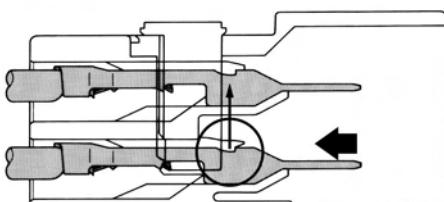
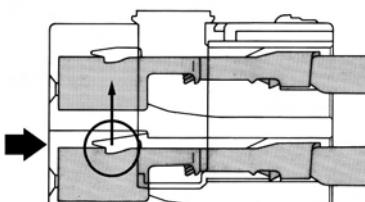
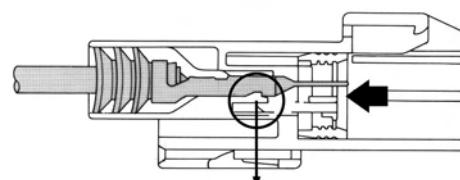
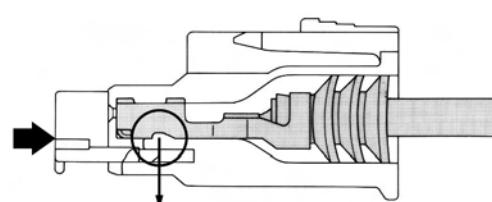
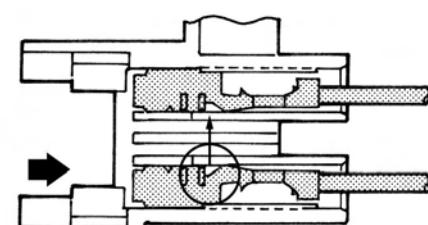
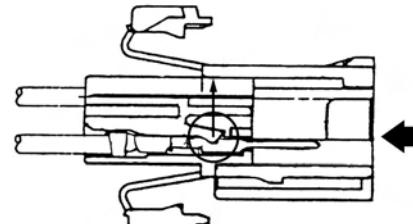
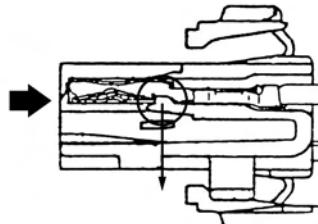
Type		
	Male	Female
4.8 Non-waterproof Type	 <p>(Double Lock Type) [Housing Lance]</p>	 <p>(Double Lock Type) [Housing Lance]</p>
4.8 Waterproof Type	 <p>(Double Lock Type) [Housing Lance]</p>	 <p>(Double Lock Type) [Housing Lance]</p>
6.3 Non-waterproof Type	 <p>[Housing Lance]</p>	 <p>[Housing Lance]</p>
6.3 Single Terminal		 <p>[Terminal Lance]</p>

## TABLE OF HOUSING CROSS SECTION

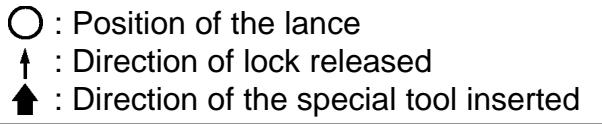
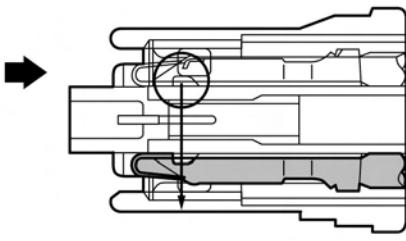
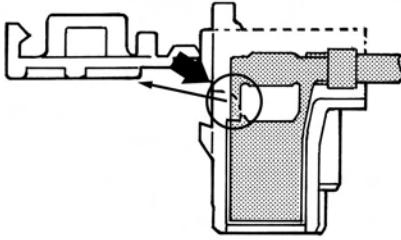
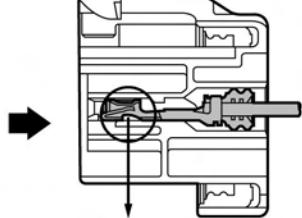
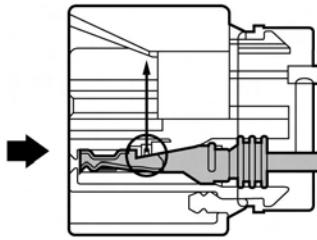
Type		
	Male	Female
6.3 Waterproof Type	_____	 [ <b>Housing Lance</b> ]
6.3 Waterproof Type	_____	 [ <b>Housing Lance</b> ]
7.7	 [ <b>Terminal Lance</b> ]	 [ <b>Terminal Lance</b> ]
7.7	 [ <b>Housing Lance</b> ]	 [ <b>Housing Lance</b> ]

C

## TABLE OF HOUSING CROSS SECTION

Type		
	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>

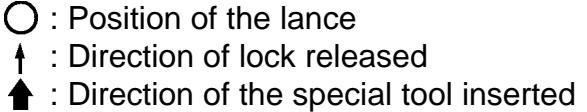
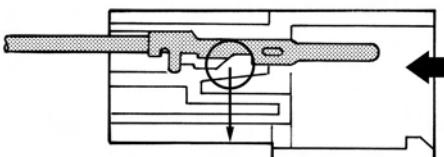
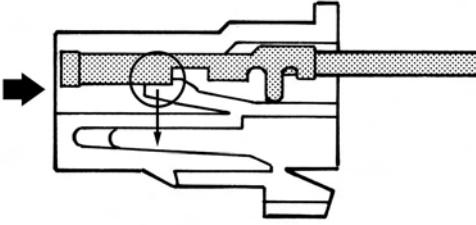
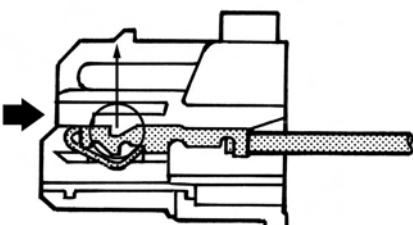
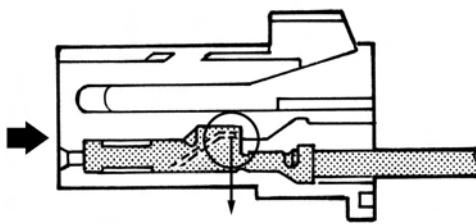
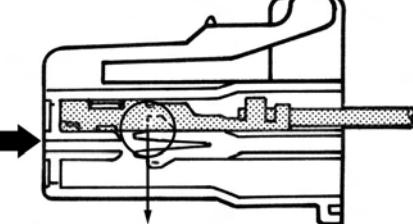
## TABLE OF HOUSING CROSS SECTION

Type		
	Male	Female
FOG-LP	_____	 (Double Lock Type) [Housing Lance]
FTC	_____	 (Double Lock Type) [Housing Lance]
HEAD LAMP Waterproof Type	_____	 [Housing Lance]
HB3 HB4	_____	 [Housing Lance]

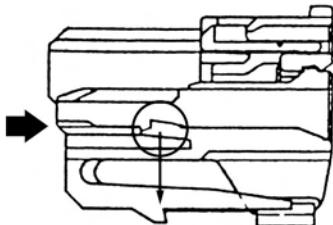
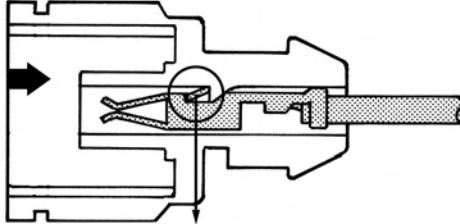
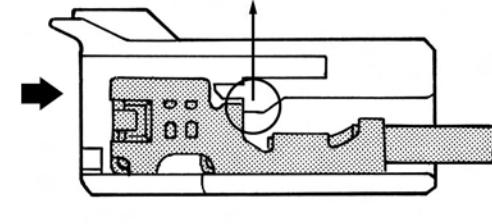
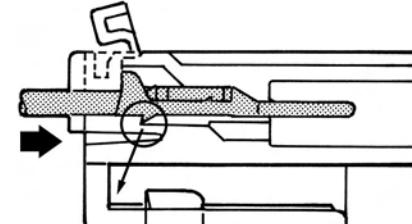
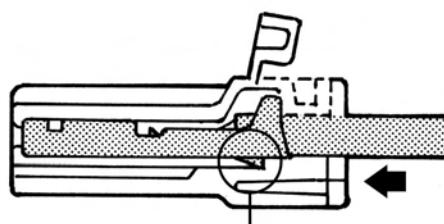
C

## TABLE OF HOUSING CROSS SECTION

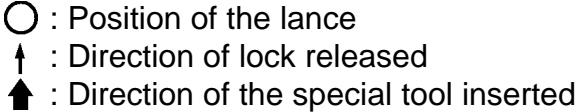
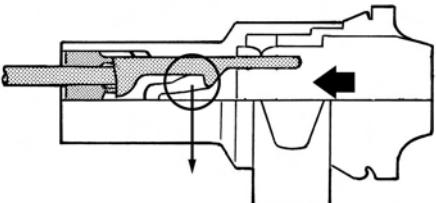
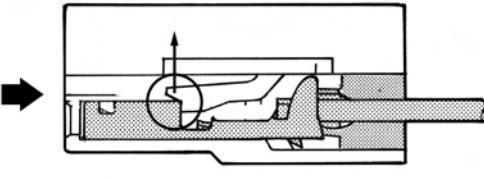
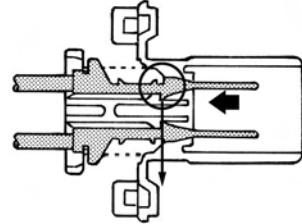
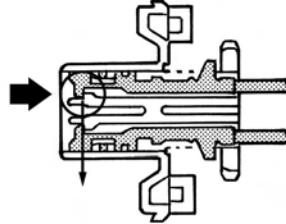
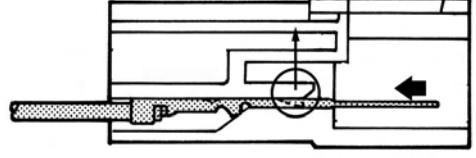
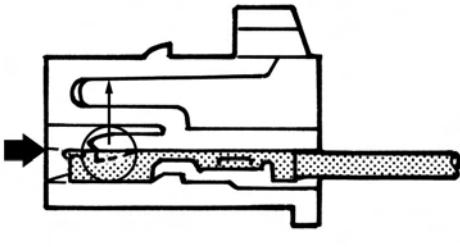
**C**

Type	 ○ : Position of the lance ↑ : Direction of lock released ↗ : Direction of the special tool inserted	
	Male	Female
LAC	 [ Housing Lance ]	 [ Housing Lance ]
MFPC	 [ Housing Lance ]	
MIC	 [ Terminal Lance ]	
PULSE LOCK	 [ Housing Lance ]	

## TABLE OF HOUSING CROSS SECTION

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

## 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	 [Housing Lance]	 [Housing Lance]
TNS	 (Double Lock Type) [Housing Lance]	 (Double Lock Type) [Housing Lance]
TODC	 [Housing Lance]	 (Double Lock Type) [Housing Lance]

# TABLE OF HOUSING SHAPE

## FEMALE

WATERPROOF TYPE ..... D-1

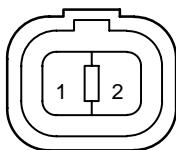
NON-WATERPROOF TYPE ..... D-26

## MALE

WATERPROOF TYPE ..... D-117

NON-WATERPROOF TYPE ..... D-132

The front view of the housing



90980-10498  
90980-10706

D

### NOTICE:

- In case that two or more part Nos. of housing are shown, carefully check differences of the arrangement of gold-plated terminals or whether there is clamps or not.
- Please refer to HOUSING PART NUMBER LIST for the availability of the supply parts.

D

TABLE OF HOUSING SHAPE

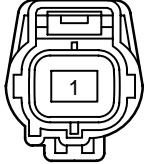
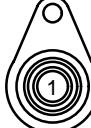
## &lt;FEMALE&gt; 1P Waterproof Type

			
90980-10090	90980-10115	90980-10197	90980-10201
			
90980-10241	90980-10247 90980-10705	90980-10439	90980-10837
			
90980-10893	90980-10983	90980-11007	90980-11166
			
90980-11184	90980-11243	90980-11252	90980-11271
			
90980-11282	90980-11363	90980-11400	90980-11428

D

## TABLE OF HOUSING SHAPE

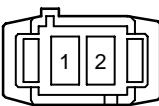
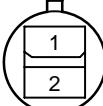
## &lt;FEMALE&gt; 1P Waterproof Type

			
90980-11941	90980-11942	90980-11943	90980-11944
			
90980-11963	90980-12125	90980-12129 90980-12136	

D

## TABLE OF HOUSING SHAPE

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

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

D

## TABLE OF HOUSING SHAPE

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

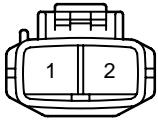
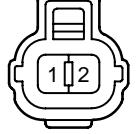
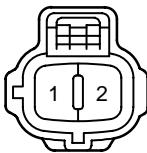
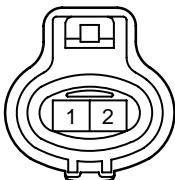
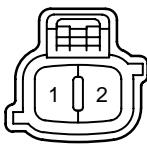
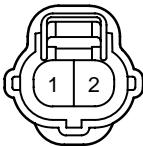
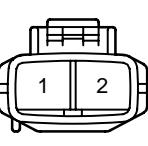
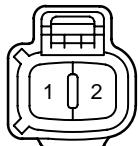
			
90980-10598	90980-10609	90980-10617	90980-10622
			
90980-10623	90980-10626	90980-10702	90980-10720
			
90980-10734	90980-10735	90980-10736	90980-10737
			
90980-10748 90980-10846	90980-10839	90980-10843	90980-10847
			
90980-10853	90980-10887	90980-10899	90980-10901

TABLE OF HOUSING SHAPE

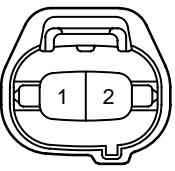
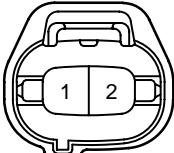
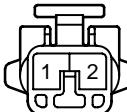
## &lt;FEMALE&gt; 2P Waterproof Type

			
90980-10923	90980-10928	90980-10947	90980-10949
			
90980-10974	90980-11003	90980-11005	90980-11009
			
90980-11019	90980-11025 90980-11401	90980-11030	90980-11032
			
90980-11038	90980-11051	90980-11061	90980-11062
			
90980-11068	90980-11070	90980-11075	90980-11095

D

## TABLE OF HOUSING SHAPE

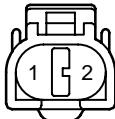
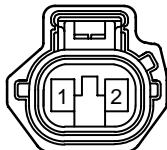
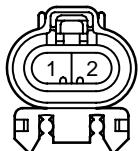
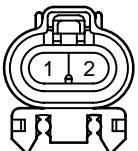
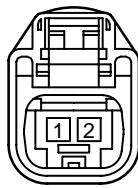
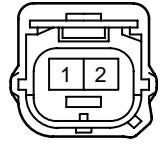
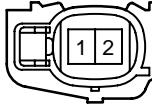
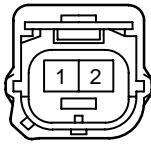
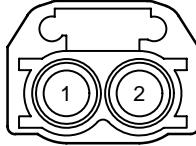
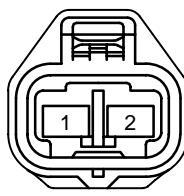
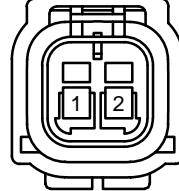
## &lt;FEMALE&gt; 2P Waterproof Type

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

D

## TABLE OF HOUSING SHAPE

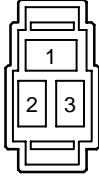
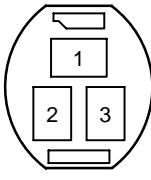
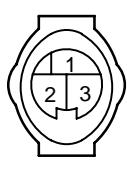
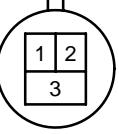
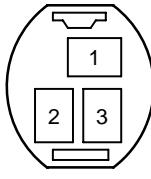
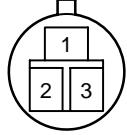
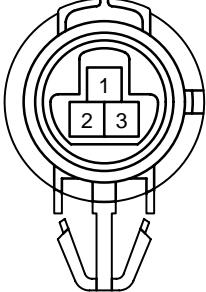
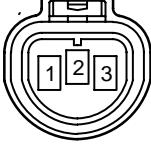
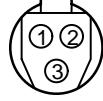
## &lt;FEMALE&gt; 2P Waterproof Type

			
90980-11286	90980-11410	90980-11448	90980-11467
			
90980-11659	90980-11660	90980-11773	90980-11790
			
90980-11856	90980-11859	90980-11864	90980-11875
			
90980-11898	90980-11900	90980-12028	90980-12068
			
90980-12117	90980-12188	90980-12195	

D

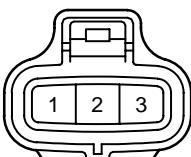
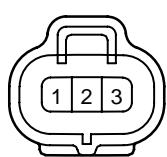
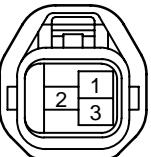
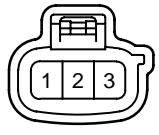
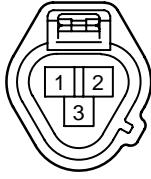
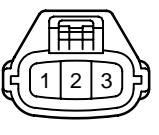
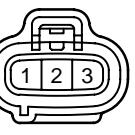
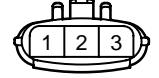
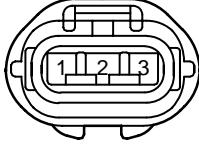
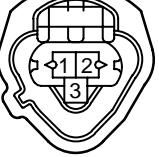
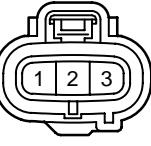
## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 3P Waterproof Type

			
90980-10088	90980-10110	90980-10191	90980-10199
			 90980-10341 90980-11491
			
90980-10353	90980-10395	90980-10494	90980-10501
			
90980-10554	90980-10574	90980-10579	90980-10629
			
90980-10683	90980-10690 90980-11157	90980-10695	90980-10834

## TABLE OF HOUSING SHAPE

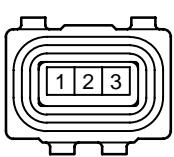
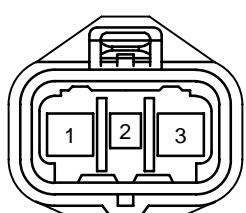
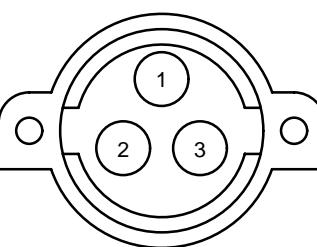
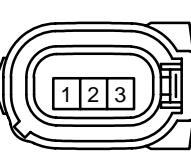
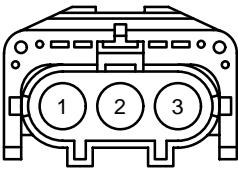
## &lt;FEMALE&gt; 3P Waterproof Type

			
90980-10841	90980-10845	90980-10902	90980-10919
			
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

D

## TABLE OF HOUSING SHAPE

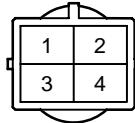
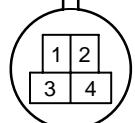
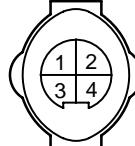
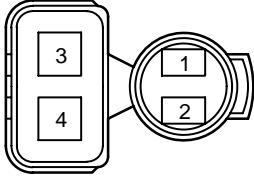
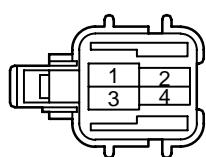
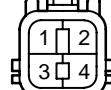
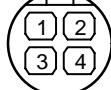
## &lt;FEMALE&gt; 3P Waterproof Type

			
90980-11907	90980-12058	90980-12095	90980-12168
			
90980-12228			

D

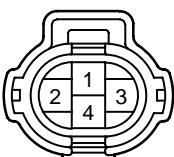
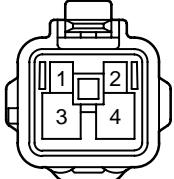
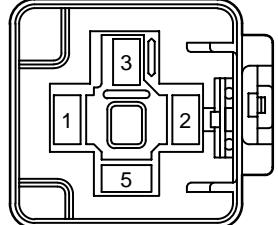
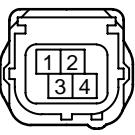
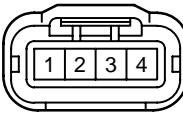
TABLE OF HOUSING SHAPE

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

			
90980-10095	90980-10140 90980-10220	90980-10203	90980-10218
			
90980-10373	90980-10476	90980-10549	90980-10551
			
90980-10591	90980-10649	90980-10663 90980-10664	90980-10685
			
90980-10701	90980-10711	90980-10831	90980-10844
			
90980-10869	90980-10929	90980-10940	90980-10942

## TABLE OF HOUSING SHAPE

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

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

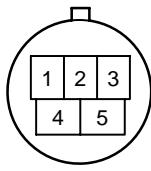
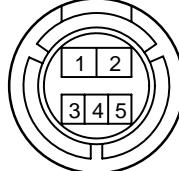
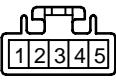
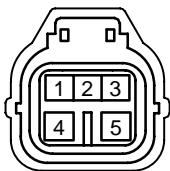
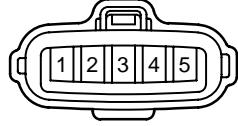
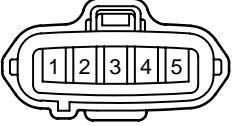
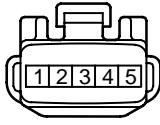
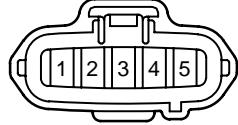
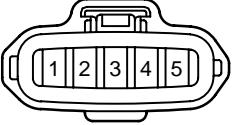
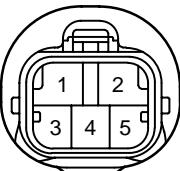
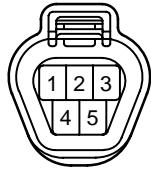
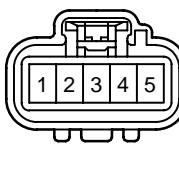
## TABLE OF HOUSING SHAPE

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

			
90980-11930	90980-11964	90980-12005	90980-12057

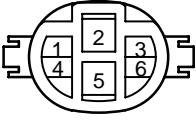
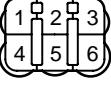
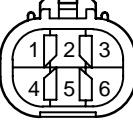
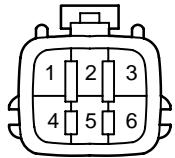
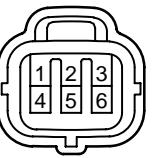
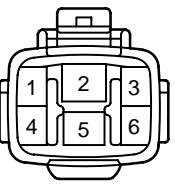
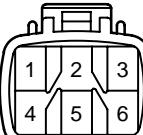
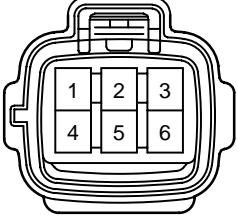
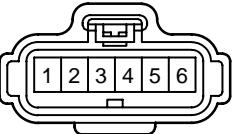
## TABLE OF HOUSING SHAPE

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

			
90980-10162	90980-10393	90980-10550	90980-10558
			
90980-10624	90980-10710	90980-10712	90980-10946
			
90980-11022	90980-11024	90980-11049	90980-11077
			
90980-11182	90980-11232	90980-11317	90980-11413
			
90980-11599	90980-11904	90980-11960	

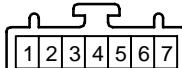
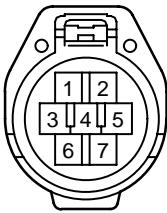
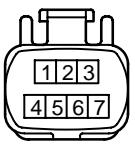
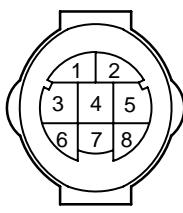
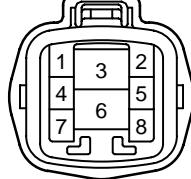
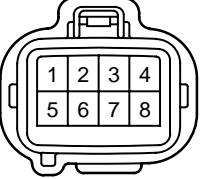
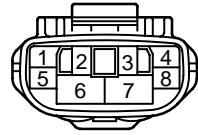
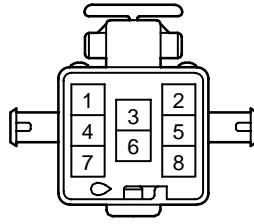
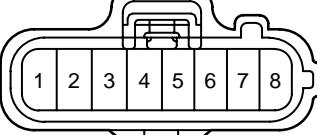
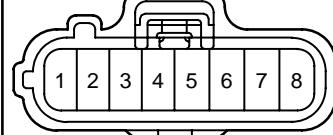
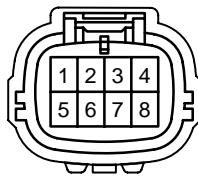
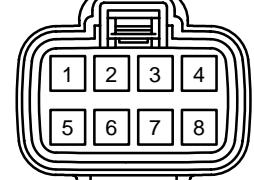
## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 6P Waterproof Type

			
90980-10097	90980-10195	90980-10478	90980-10597
			
90980-10643	90980-10651	90980-10854	90980-10939
			
90980-10988	90980-11034	90980-11144	90980-11194
			
90980-11197	90980-11290	90980-11663	90980-11858

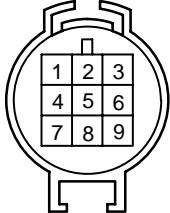
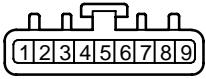
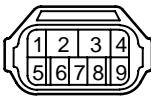
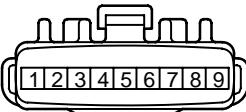
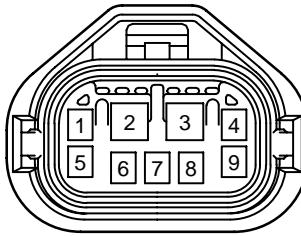
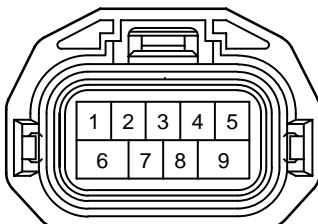
## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 7P, 8P Waterproof Type

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

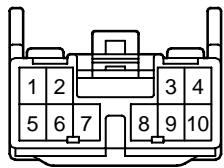
## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 9P Waterproof Type

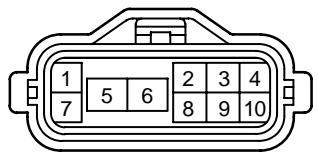
		
90980-10380 90980-10381	90980-10678	90980-10686
		
90980-10776	90980-11192	90980-11643
		
90980-11784		

## TABLE OF HOUSING SHAPE

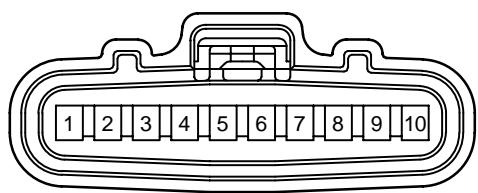
## &lt;FEMALE&gt; 10P Waterproof Type



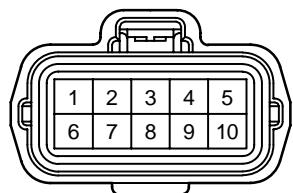
90980-11231



90980-11332



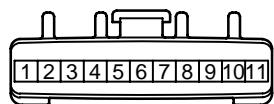
90980-11653



90980-11658

## TABLE OF HOUSING SHAPE

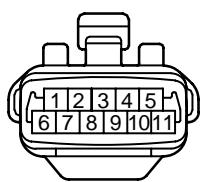
## &lt;FEMALE&gt; 11P Waterproof Type



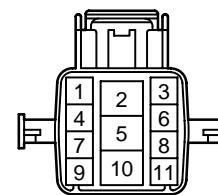
90980-11174



90980-11240



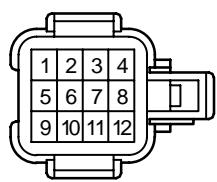
90980-11257



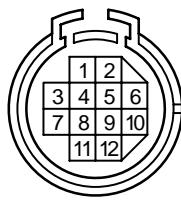
90980-11612

## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 12P Waterproof Type



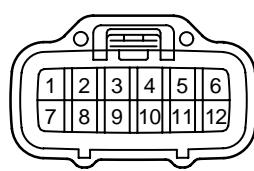
90980-10548



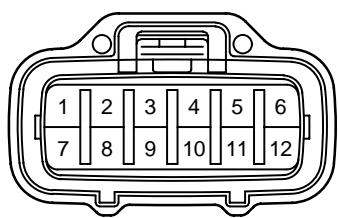
90980-10569



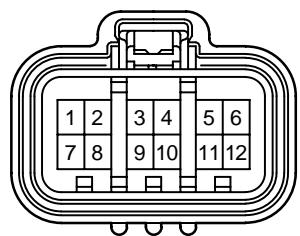
90980-11087



90980-11151



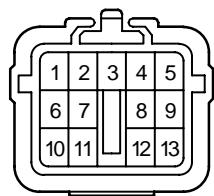
90980-11664



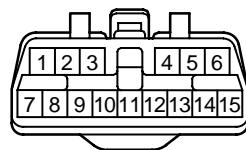
90980-11698

## TABLE OF HOUSING SHAPE

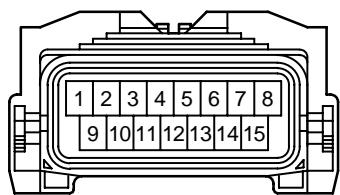
## &lt;FEMALE&gt; 13P, 15P Waterproof Type



90980-10654



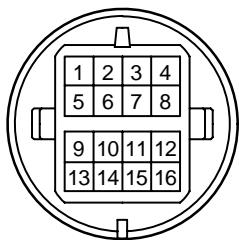
90980-11089



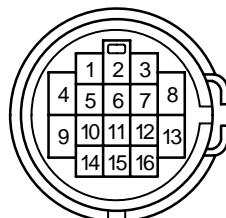
90980-11677

## TABLE OF HOUSING SHAPE

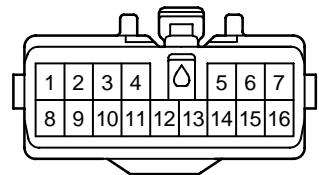
## &lt;FEMALE&gt; 16P, 17P, 23P Waterproof Type



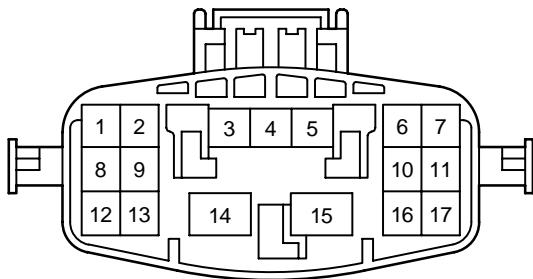
90980-10101



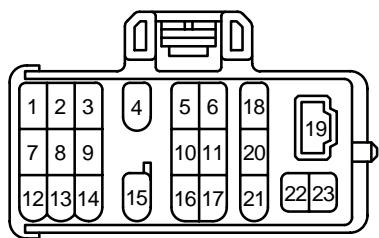
90980-10288



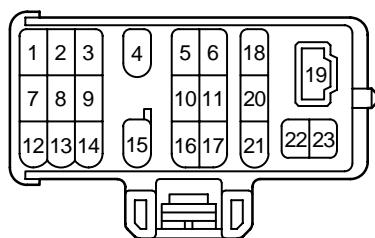
90980-11463



90980-11601



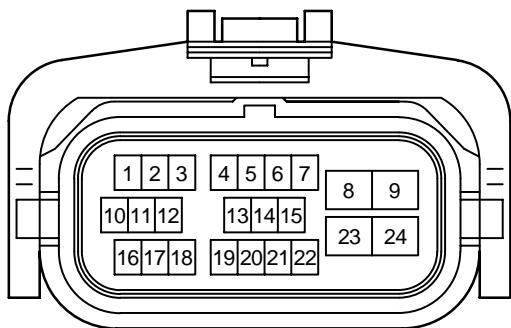
90980-11195



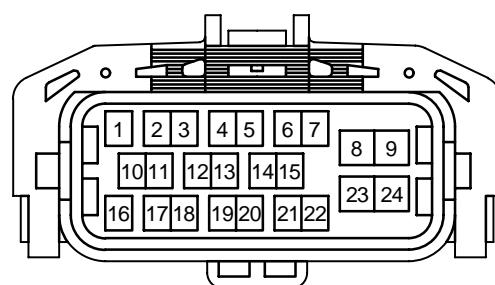
90980-11323

## TABLE OF HOUSING SHAPE

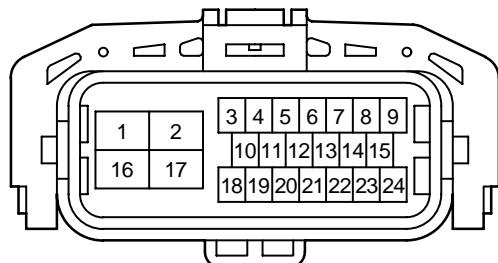
## &lt;FEMALE&gt; 24P, 25P Waterproof Type



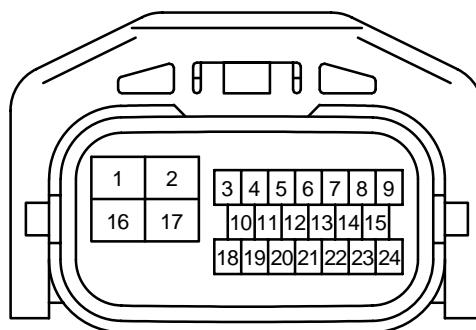
90980-11851



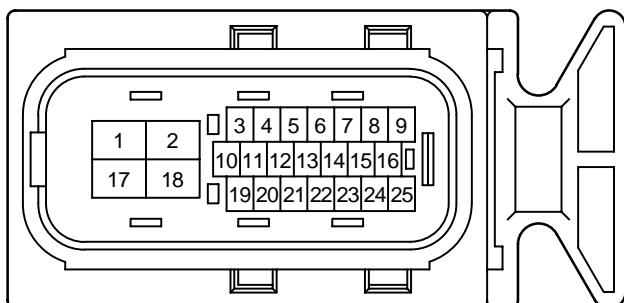
90980-11882



90980-11893



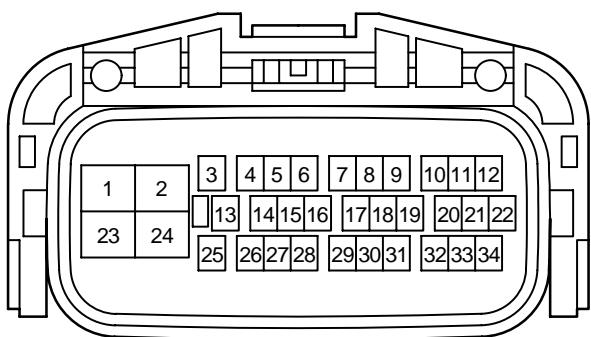
90980-12116



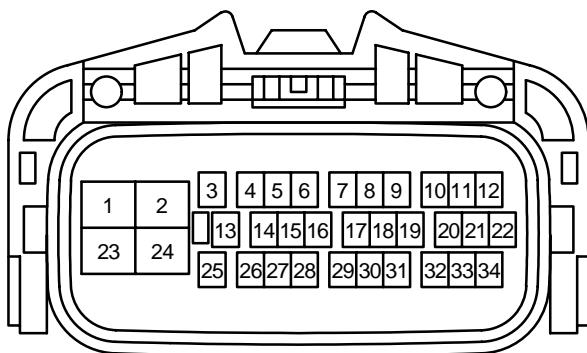
90980-11861

## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 34P, 40P Waterproof Type

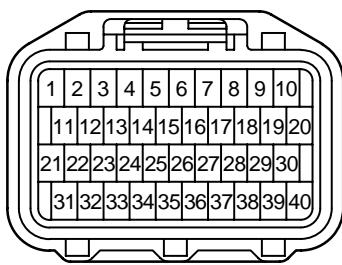


90980-12020

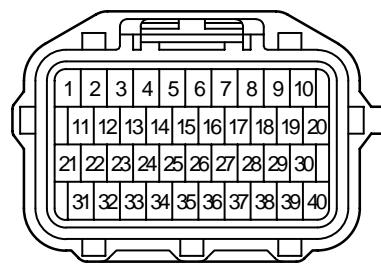


90980-12021

90980-12022

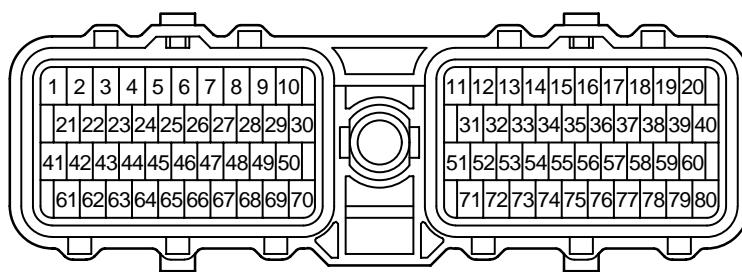


90980-11215



90980-11566

## TABLE OF HOUSING SHAPE

**<FEMALE> 80P Waterproof Type**

90980-11214

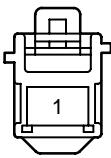
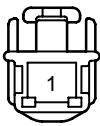
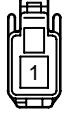
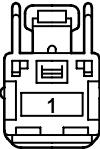
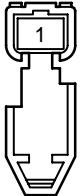
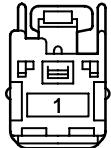
## TABLE OF HOUSING SHAPE

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

			
90980-10165	90980-10179	90980-10183	90980-10229
			
90980-10250	90980-10252	90980-10254	90980-10332
			
90980-10343	90980-10359	90980-10363	90980-10398
			
90980-10435	90980-10619	90980-10652	90980-10688
			
90980-10703	90980-10782	90980-10786	90980-10792

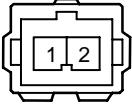
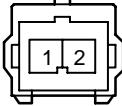
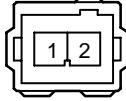
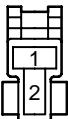
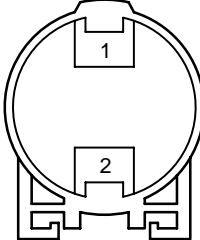
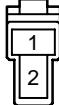
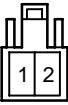
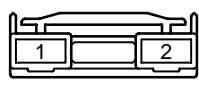
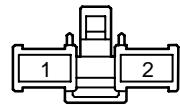
## TABLE OF HOUSING SHAPE

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

			
90980-10871	90980-10911	90980-10912	90980-10913
			
90980-10914	90980-10995	90980-11147	90980-11259
			
90980-11315	90980-11703	90980-11738	90980-11775
			
90980-11853	90980-11881		

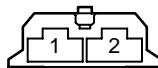
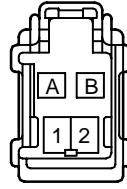
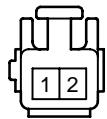
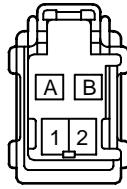
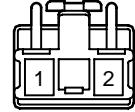
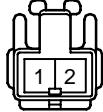
## TABLE OF HOUSING SHAPE

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

			
90980-10012	90980-10039	90980-10069	90980-10108
			
90980-10109	90980-10121	90980-10124	90980-10141
			
90980-10185	90980-10214	90980-10256	90980-10298
			
90980-10320	90980-10333	90980-10345	90980-10348
			
90980-10355	90980-10357	90980-10362	90980-10385

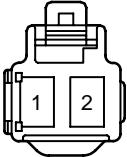
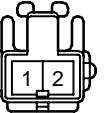
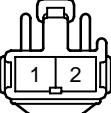
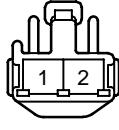
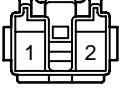
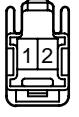
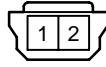
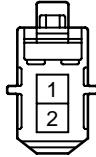
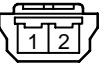
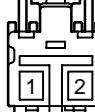
## TABLE OF HOUSING SHAPE

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

			
90980-10423	90980-10425	90980-10426	90980-10465
			
90980-10481	90980-10482	90980-10491	90980-10511
			
90980-10512	90980-10559	90980-10621	90980-10637
			
90980-10679	90980-10760	90980-10783	90980-10823
			
90980-10825	90980-10835	90980-10850	90980-10855

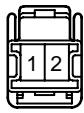
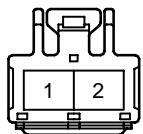
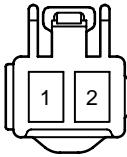
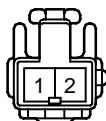
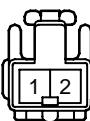
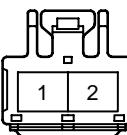
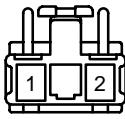
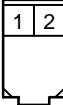
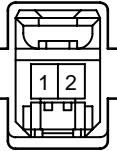
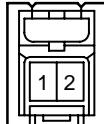
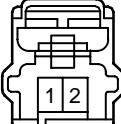
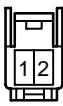
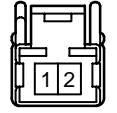
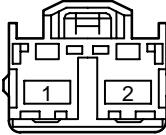
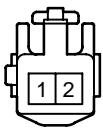
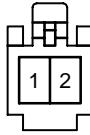
## TABLE OF HOUSING SHAPE

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

			
90980-10860	90980-10903	90980-10906	90980-10916
			
90980-10935	90980-10960	90980-10962	90980-11080
			
90980-11094	90980-11098	90980-11148	90980-11212
			
90980-11227	90980-11278	90980-11306	90980-11369
			
90980-11386	90980-11388	90980-11396	90980-11429

## TABLE OF HOUSING SHAPE

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

			
90980-11436	90980-11579	90980-11608	90980-11684
			
90980-11687	90980-11736	90980-11769	90980-11824
			
90980-11839	90980-11840	90980-11862	90980-11884
			
90980-11886	90980-11890	90980-11918	90980-11919
			
90980-11996	90980-12014	90980-12039	90980-12063

## TABLE OF HOUSING SHAPE

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

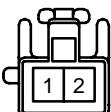
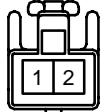
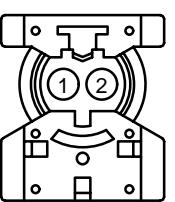
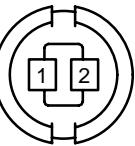
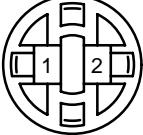
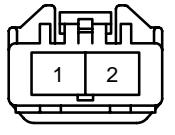
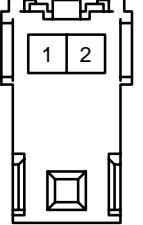
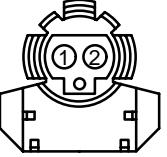
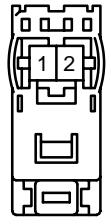
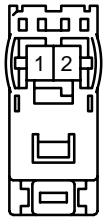
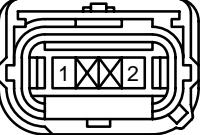
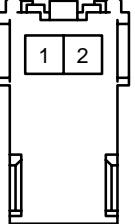
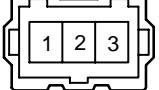
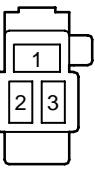
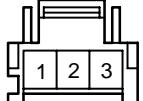
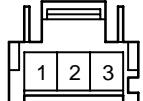
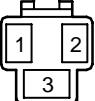
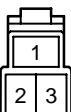
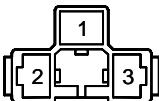
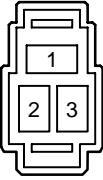
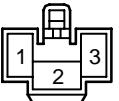
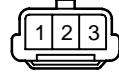
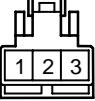
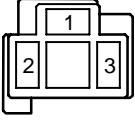
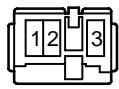
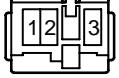
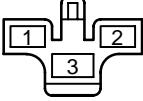
			
90980-12088	90980-12089	90980-12109	90980-12110
			
90980-12111	90980-12120	90980-12138	90980-12191
			
90980-12219 90980-12242	90980-12224 90980-12243	90980-12241	90980-12253

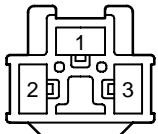
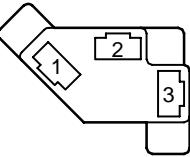
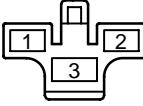
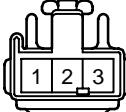
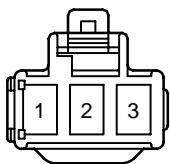
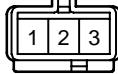
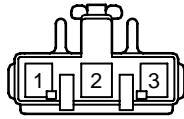
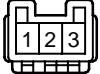
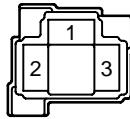
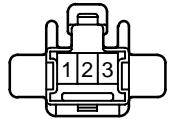
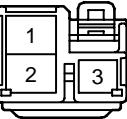
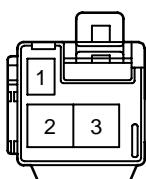
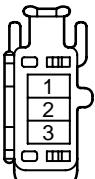
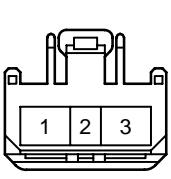
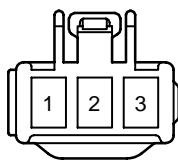
TABLE OF HOUSING SHAPE

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

			
90980-10056	90980-10070	90980-10072	90980-10111
			
90980-10143	90980-10189	90980-10216	90980-10222
			
90980-10228	90980-10232	90980-10234	90980-10258
			
90980-10365	90980-10420	90980-10428	90980-10464
			
90980-10483	90980-10489	90980-10490	90980-10618

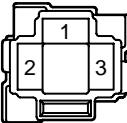
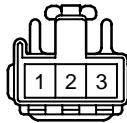
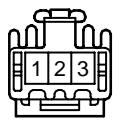
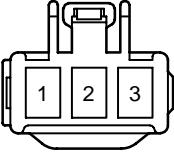
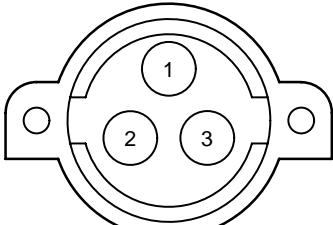
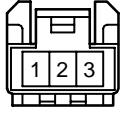
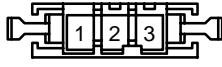
## TABLE OF HOUSING SHAPE

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

			
90980-10638 90980-10660	90980-10704	90980-10747	90980-10784
			
90980-10908	90980-10956	90980-10980	90980-11053
			
90980-11071	90980-11079	90980-11251	90980-11296
			
90980-11314	90980-11336	90980-11387	90980-11471
			
90980-11485	90980-11490	90980-11667	90980-11685

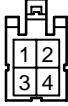
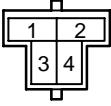
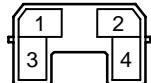
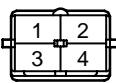
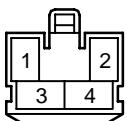
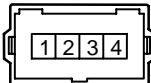
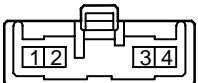
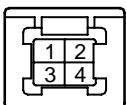
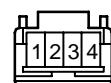
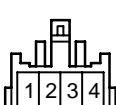
## TABLE OF HOUSING SHAPE

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

			
90980-11731	90980-11764	90980-11777	90980-11880
			
90980-11938	90980-11987	90980-12197	

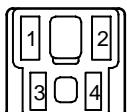
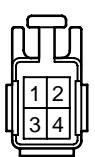
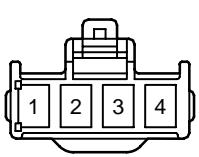
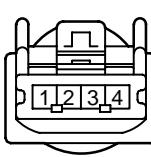
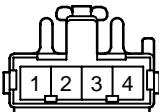
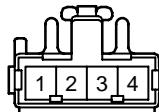
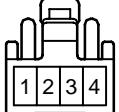
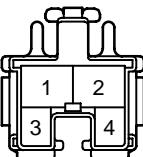
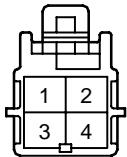
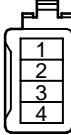
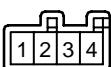
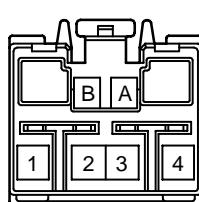
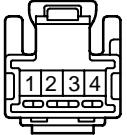
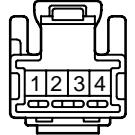
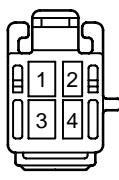
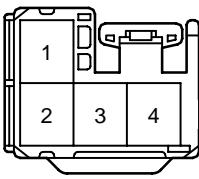
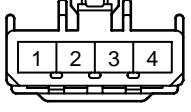
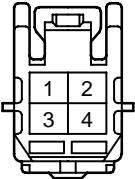
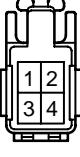
## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 4P Non-waterproof Type

			
90980-10002	90980-10127	90980-10142	90980-10171
			
90980-10196	90980-10221	90980-10260	90980-10307
			
90980-10378	90980-10400	90980-10467	90980-10484
			
90980-10504	90980-10514	90980-10515	90980-10601
			
90980-10645	90980-10692	90980-10716	90980-10717

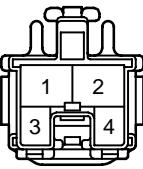
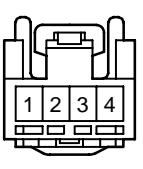
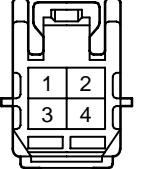
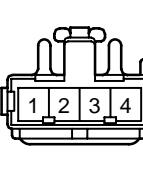
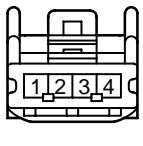
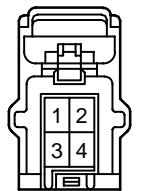
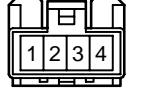
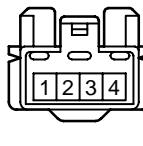
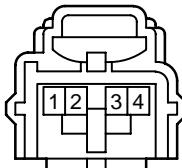
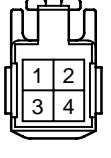
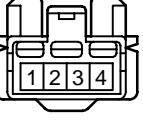
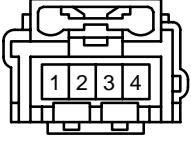
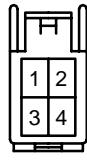
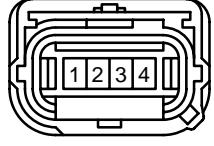
## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 4P Non-waterproof Type

			
90980-10759	90980-10795	90980-10867	90980-10904
			
90980-11013	90980-11090	90980-11107	90980-11118
			
90980-11136	90980-11187	90980-11313	90980-11398
			
90980-11427	90980-11494	90980-11495	90980-11606
			
90980-11662	90980-11676	90980-11742	90980-11766

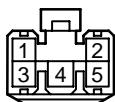
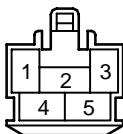
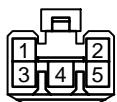
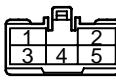
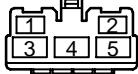
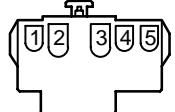
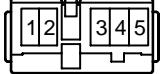
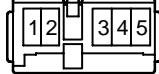
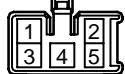
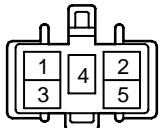
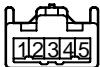
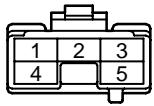
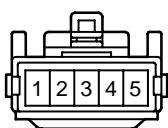
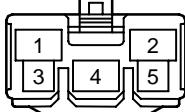
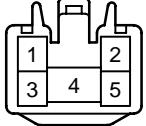
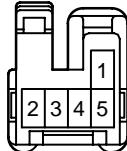
## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 4P Non-waterproof Type

			
90980-11771	90980-11792	90980-11799	90980-11841
			
90980-11842	90980-11892	90980-11950	90980-11988
			
90980-12017	90980-12018	90980-12019	90980-12160
			
90980-12211	90980-12225		

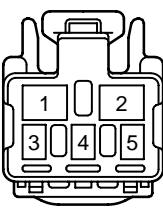
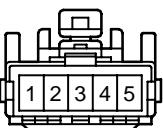
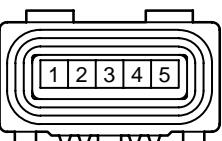
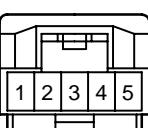
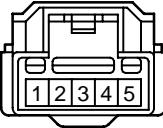
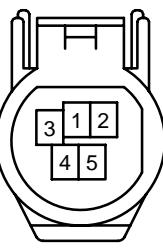
## TABLE OF HOUSING SHAPE

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

			
90980-10041	90980-10262	90980-10274	90980-10339
			
90980-10340	90980-10376	90980-10487	90980-10488
			
90980-10509	90980-10520	90980-10610	90980-10631
			
90980-10644	90980-10659	90980-10713	90980-10718
			
90980-10789	90980-10888	90980-10986	90980-11319

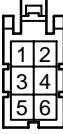
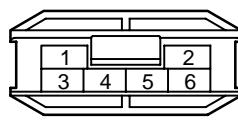
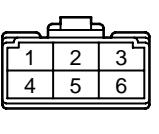
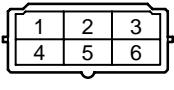
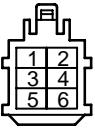
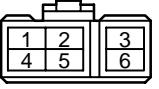
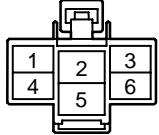
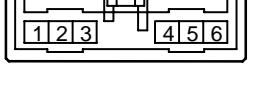
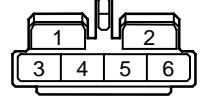
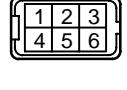
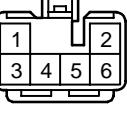
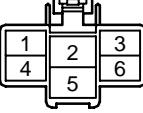
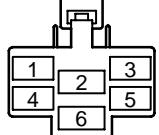
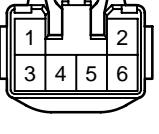
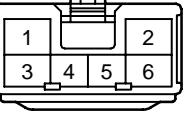
## TABLE OF HOUSING SHAPE

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

			
90980-11603	90980-11772	90980-11908	90980-11909
			
90980-11921	90980-12190		

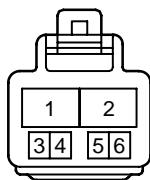
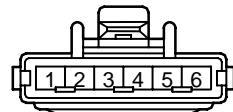
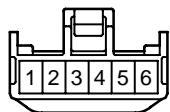
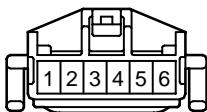
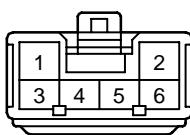
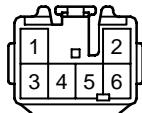
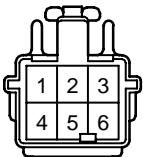
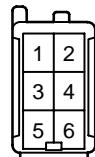
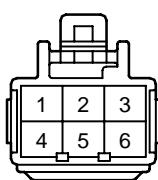
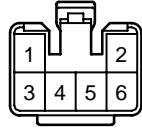
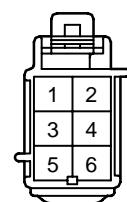
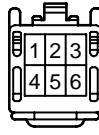
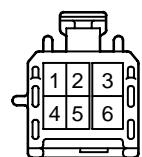
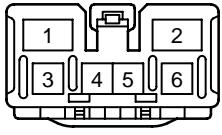
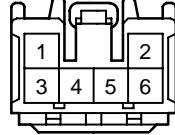
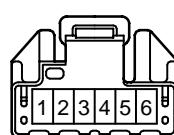
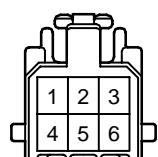
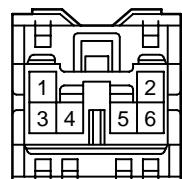
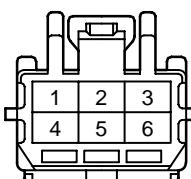
## TABLE OF HOUSING SHAPE

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

			
90980-10004	90980-10029	90980-10173	90980-10224
			
90980-10313	90980-10334	90980-10335	90980-10367
			
90980-10382	90980-10402	90980-10414	90980-10447
			
90980-10604	90980-10605	90980-10672	90980-10673
			
90980-10766	90980-10785	90980-10797	90980-10889

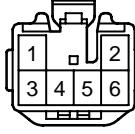
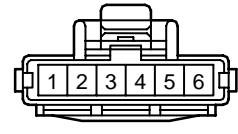
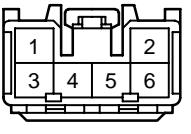
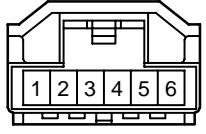
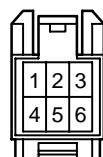
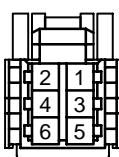
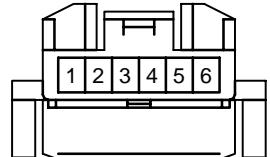
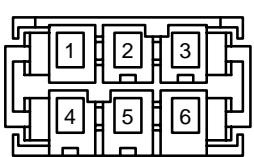
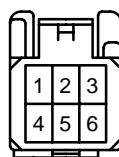
## TABLE OF HOUSING SHAPE

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

			
90980-10910	90980-10933	90980-10957	90980-10964
			
90980-10976	90980-10996	90980-11001	90980-11011
			
90980-11091	90980-11280	90980-11297	90980-11326
			
90980-11488	90980-11493	90980-11552	90980-11583
			
90980-11616	90980-11617	90980-11697	90980-11778

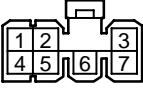
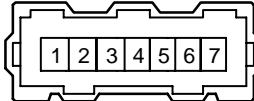
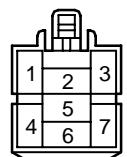
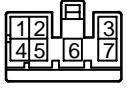
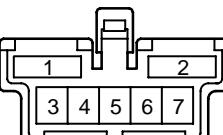
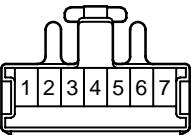
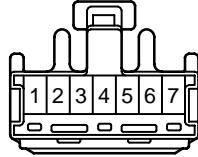
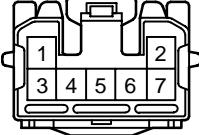
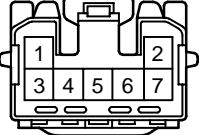
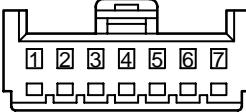
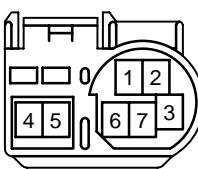
## TABLE OF HOUSING SHAPE

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

			
90980-11780	90980-11820	90980-11879	90980-11986
			
90980-12012	90980-12056	90980-12067	90980-12199
			
90980-12209			

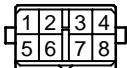
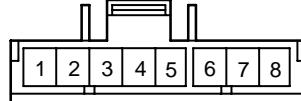
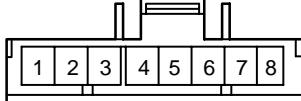
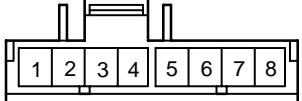
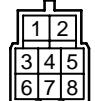
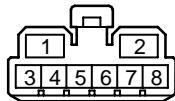
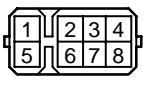
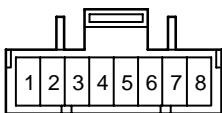
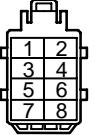
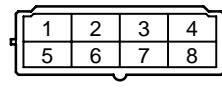
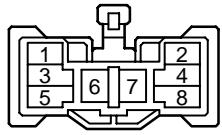
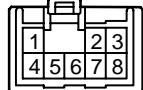
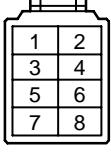
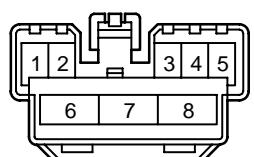
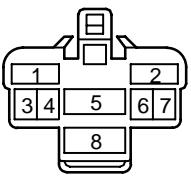
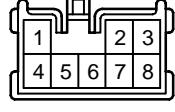
## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 7P Non-waterproof Type

			
90980-10043	90980-10071	90980-10264	90980-10311
		 90980-10729 90980-10772	
90980-10452	90980-10460	90980-10729 90980-10772	90980-11165
			
90980-11340	90980-11529	90980-11740	90980-11794
			
90980-12060			

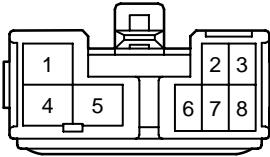
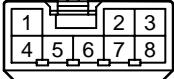
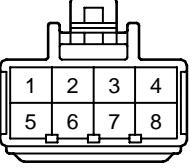
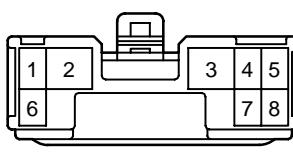
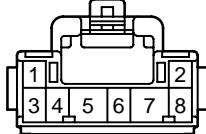
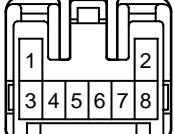
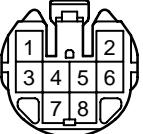
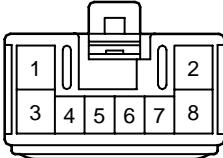
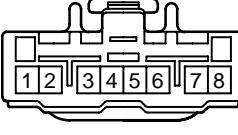
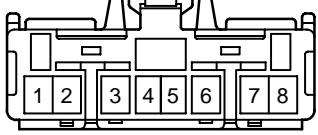
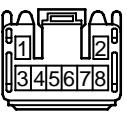
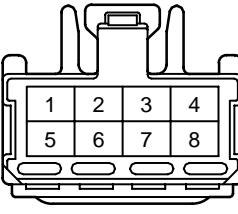
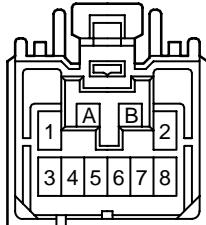
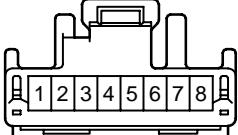
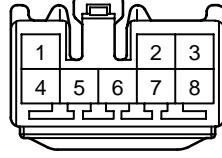
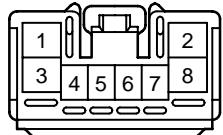
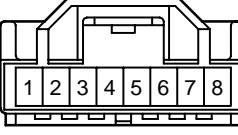
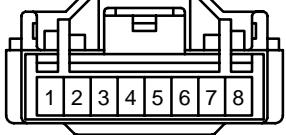
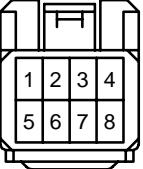
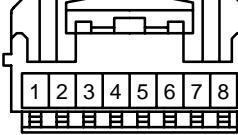
## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 8P Non-waterproof Type

			
90980-10019	90980-10112	90980-10113	90980-10119
			
90980-10148	90980-10175	90980-10209	90980-10280
			
90980-10301	90980-10321	90980-10336	90980-10358
			
90980-10404	90980-10419	90980-10431	90980-10449
			
90980-10463	90980-10517	90980-10523	90980-10799

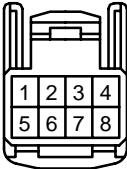
## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 8P Non-waterproof Type

			
90980-10877 90980-11439	90980-10926	90980-11092	90980-11130
			
90980-11279	90980-11321	90980-11354	90980-11362
			
90980-11397	90980-11459	90980-11533	90980-11615
			
90980-11630	90980-11633	90980-11686	90980-11701
			
90980-11989	90980-12091	90980-12113	90980-12217

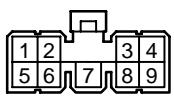
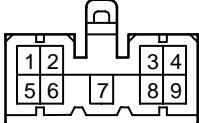
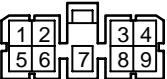
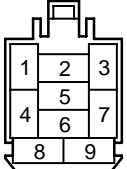
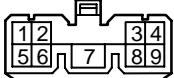
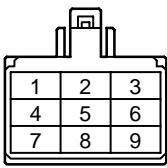
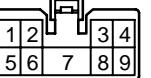
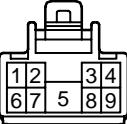
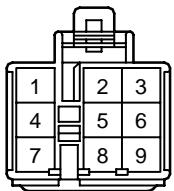
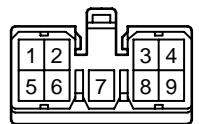
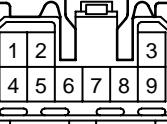
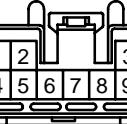
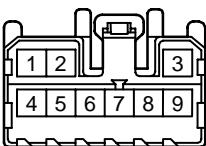
## TABLE OF HOUSING SHAPE

**<FEMALE> 8P Non-waterproof Type**

			
90980-12221			

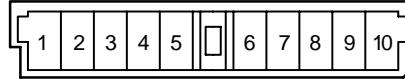
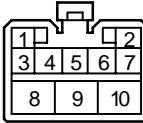
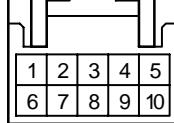
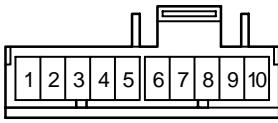
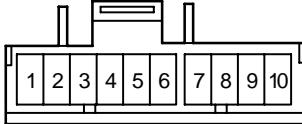
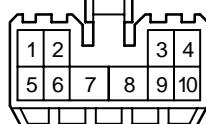
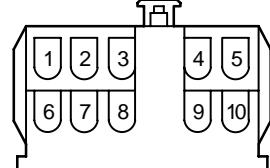
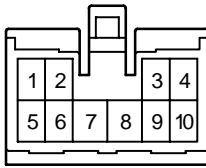
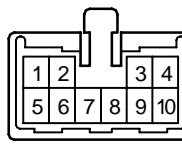
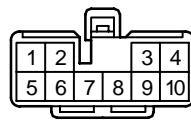
## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 9P Non-waterproof Type

			
90980-10045	90980-10133	90980-10152	90980-10266
			
90980-10318	90980-10386	90980-10536	90980-11277
			
90980-11302	90980-11479	90980-11535	90980-11710
			
90980-12026			

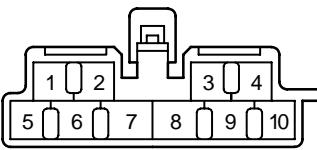
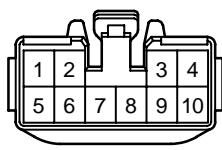
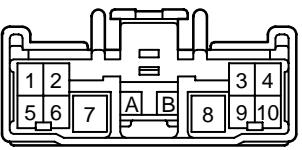
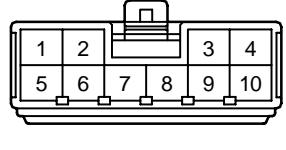
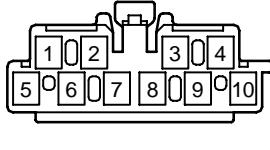
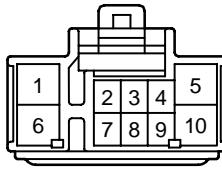
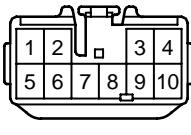
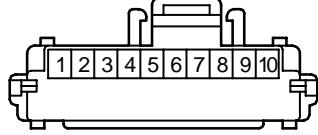
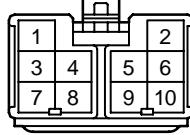
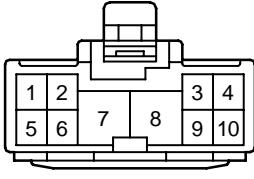
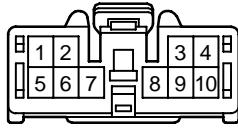
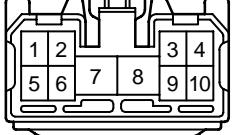
## TABLE OF HOUSING SHAPE

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

		
90980-10158	90980-10159	90980-10177
		
90980-10282	90980-10294	90980-10302
		
90980-10304	90980-10322	90980-10377
		
90980-10469	90980-10528	90980-10669

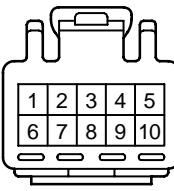
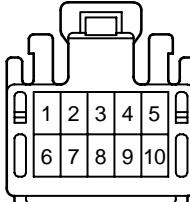
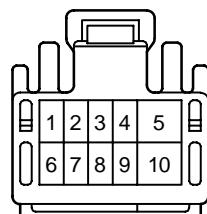
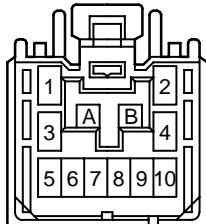
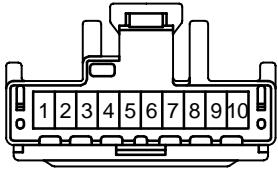
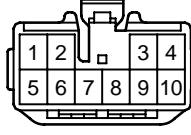
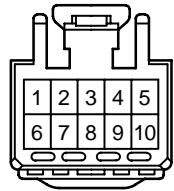
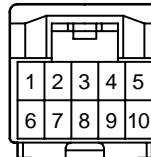
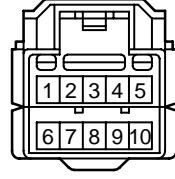
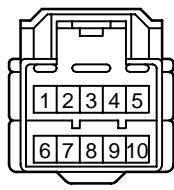
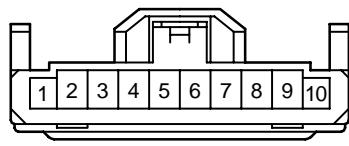
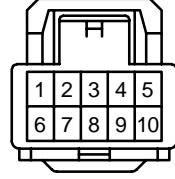
## TABLE OF HOUSING SHAPE

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

		
90980-10721	90980-10801	90980-10822
		
90980-10862	90980-10965	90980-10993
		
90980-10997	90980-11116	90980-11276
		
90980-11366	90980-11450	90980-11527

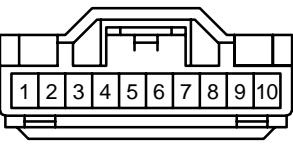
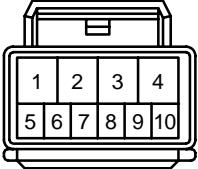
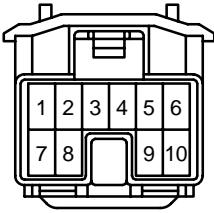
## TABLE OF HOUSING SHAPE

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

		
90980-11537	90980-11581	90980-11614
		
90980-11642	90980-11657	90980-11781
		
90980-11817	90980-11923	90980-11924
		
90980-11948	90980-12008	90980-12135

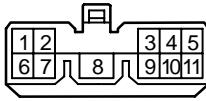
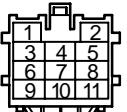
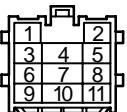
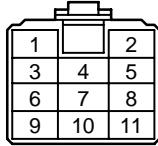
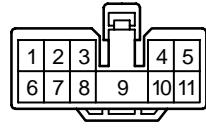
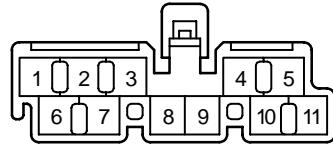
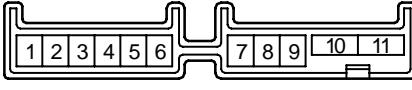
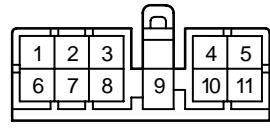
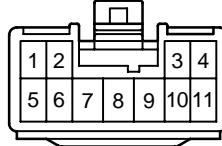
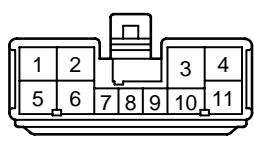
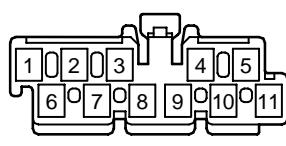
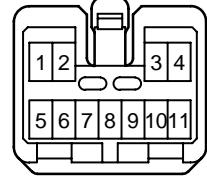
## TABLE OF HOUSING SHAPE

**<FEMALE> 10P Non-waterproof Type**

		
90980-12162	90980-12226	90980-12272

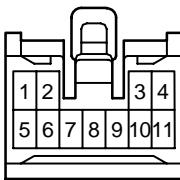
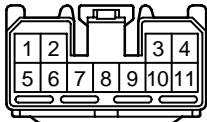
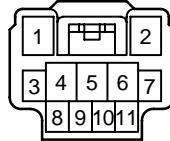
## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 11P Non-waterproof Type

		
90980-10319	90980-10337	90980-10338
		
90980-10450	90980-10537	90980-10723
		
90980-10727	90980-10781	90980-10830
		
90980-10873	90980-10966	90980-11041

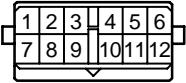
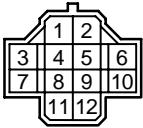
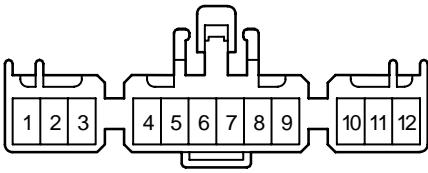
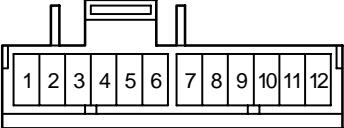
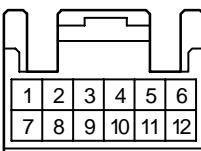
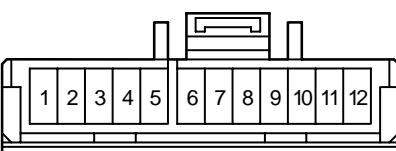
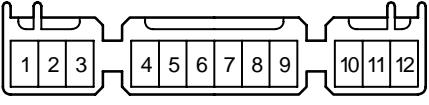
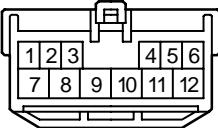
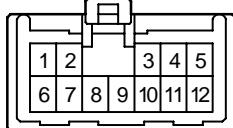
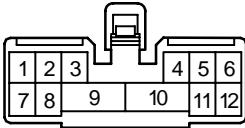
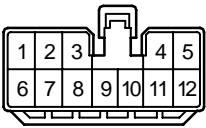
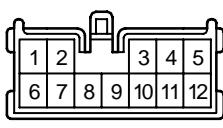
## TABLE OF HOUSING SHAPE

**<FEMALE> 11P Non-waterproof Type**

		
90980-11083	90980-11539	90980-12003

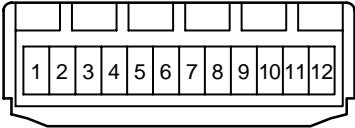
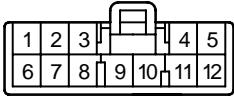
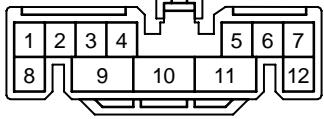
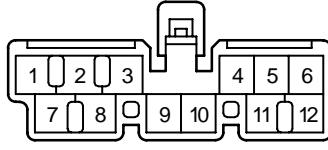
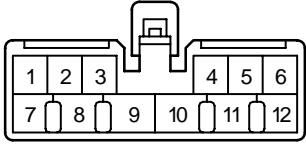
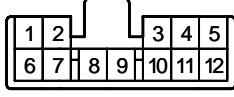
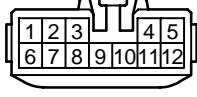
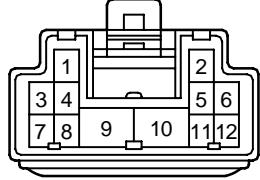
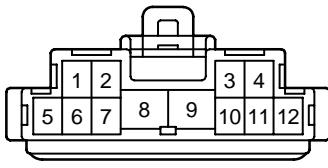
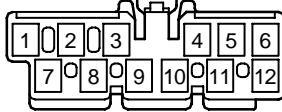
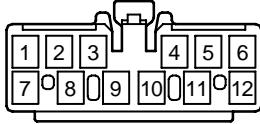
## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 12P Non-waterproof Type

		
90980-10006	90980-10150	90980-10153
		
90980-10303	90980-10351	90980-10372
		
90980-10397	90980-10406	90980-10408
		
90980-10421	90980-10432	90980-10524

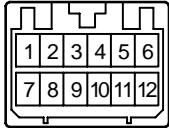
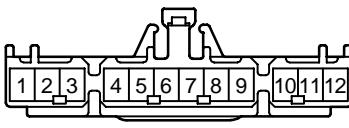
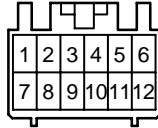
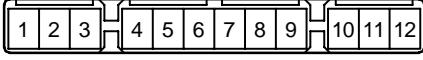
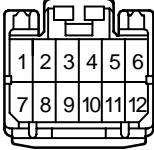
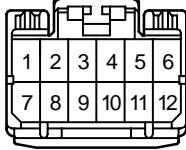
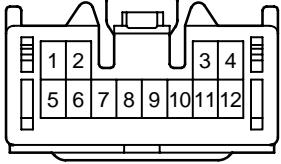
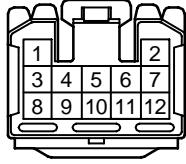
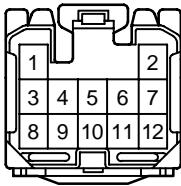
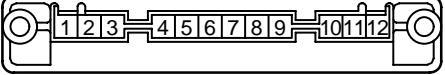
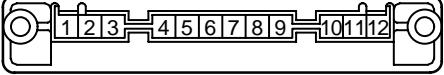
## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 12P Non-waterproof Type

		
90980-10565	90980-10632	90980-10658
		
90980-10714	90980-10724	90980-10725
		
90980-10743	90980-10803	90980-10879
		
90980-10932	90980-10967	90980-10968

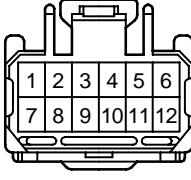
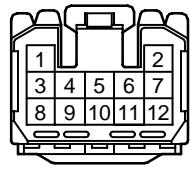
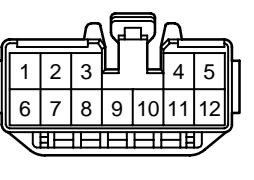
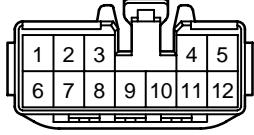
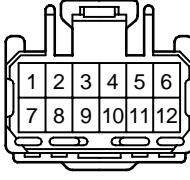
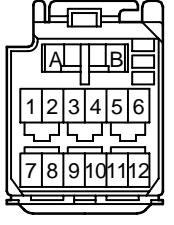
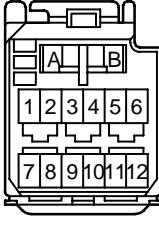
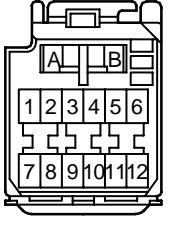
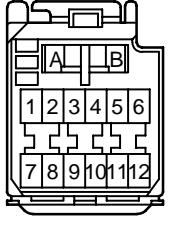
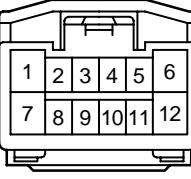
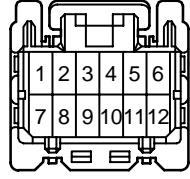
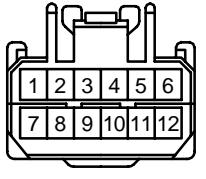
## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 12P Non-waterproof Type

		
90980-10973	90980-11121	90980-11129
		
90980-11311	90980-11408	90980-11424
		
90980-11453	90980-11475	90980-11531
		
90980-11626	90980-11649	90980-11656

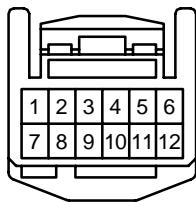
## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 12P Non-waterproof Type

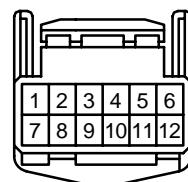
		
90980-11661	90980-11693	90980-11720
		
90980-11782	90980-11847	90980-11867
		
90980-11869	90980-11871	90980-11873
		
90980-11947	90980-12032	90980-12090

## TABLE OF HOUSING SHAPE

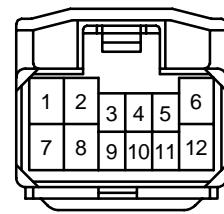
## &lt;FEMALE&gt; 12P Non-waterproof Type



90980-12183



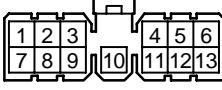
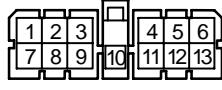
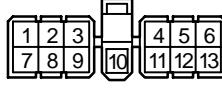
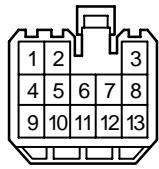
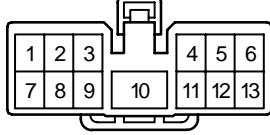
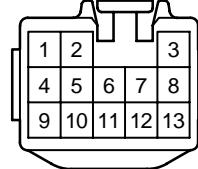
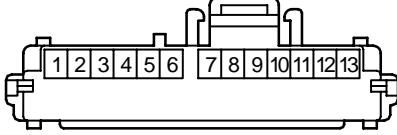
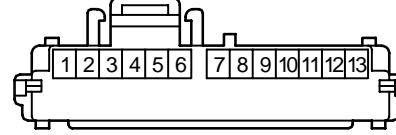
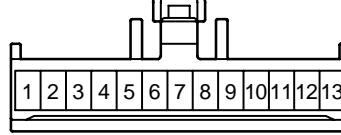
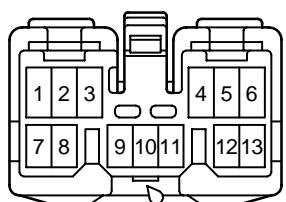
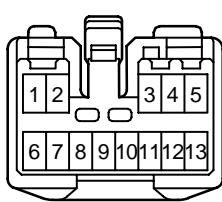
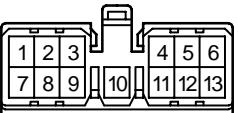
90980-12222



90980-12273

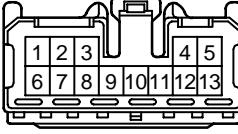
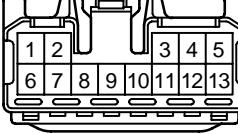
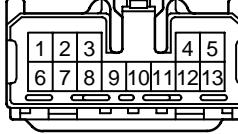
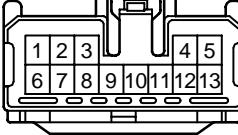
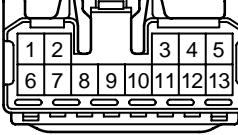
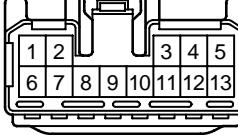
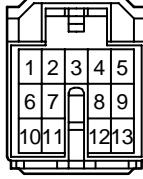
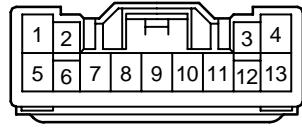
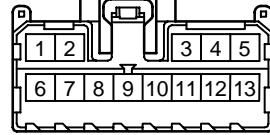
## TABLE OF HOUSING SHAPE

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

		
90980-10033	90980-10062	90980-10132
		
90980-10324	90980-10480	90980-10805
		
90980-11114	90980-11115	90980-11199
		
90980-11350	90980-11394	90980-11478

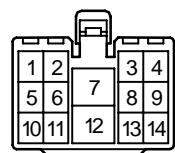
## TABLE OF HOUSING SHAPE

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

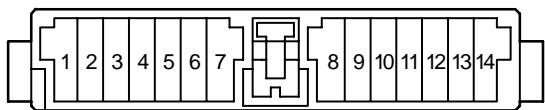
		
90980-11542	90980-11604	90980-11695
		
90980-11714	90980-11827	90980-11848
		
90980-11952	90980-12007	90980-12027

## TABLE OF HOUSING SHAPE

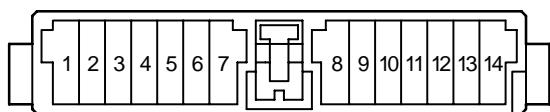
## &lt;FEMALE&gt; 14P Non-waterproof Type



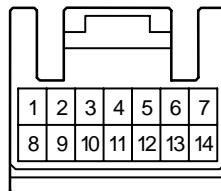
90980-10330



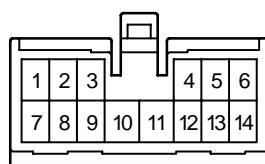
90980-10368



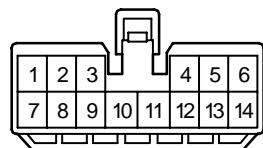
90980-10369



90980-10371



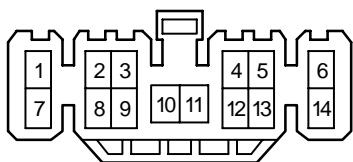
90980-10471



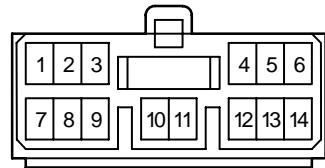
90980-10507

## TABLE OF HOUSING SHAPE

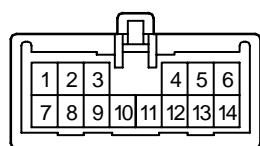
## &lt;FEMALE&gt; 14P Non-waterproof Type



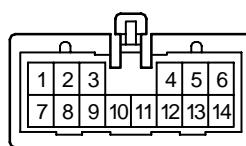
90980-10538



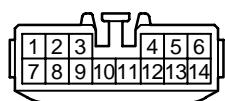
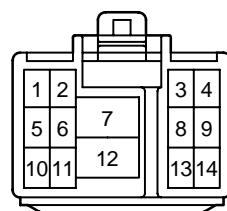
90980-10608



90980-10633



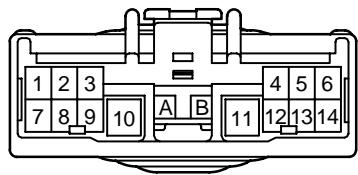
90980-10634

90980-10807  
90980-11437

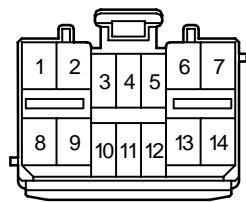
90980-10813

## TABLE OF HOUSING SHAPE

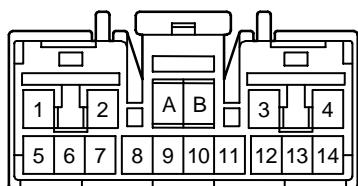
## &lt;FEMALE&gt; 14P Non-waterproof Type



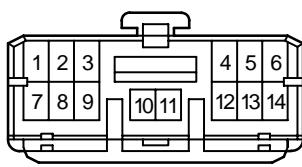
90980-10852



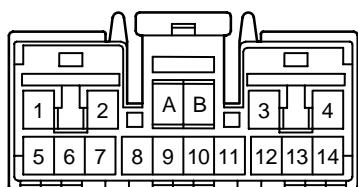
90980-11225



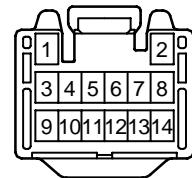
90980-11383



90980-11433



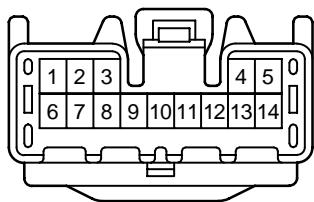
90980-11465



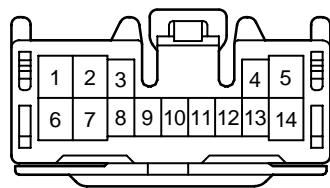
90980-11511

## TABLE OF HOUSING SHAPE

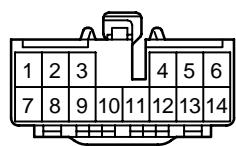
## &lt;FEMALE&gt; 14P Non-waterproof Type



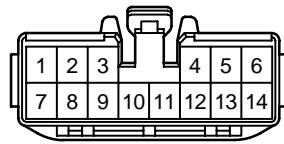
90980-11556



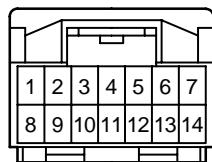
90980-11591



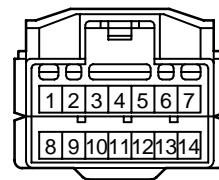
90980-11791



90980-11805

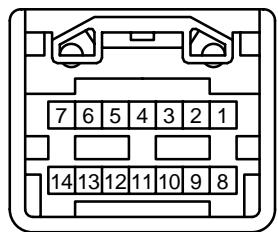


90980-11911



90980-11925

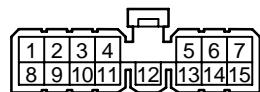
## TABLE OF HOUSING SHAPE

**<FEMALE> 14P Non-waterproof Type**

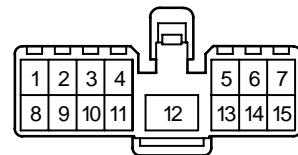
90980-12082


## TABLE OF HOUSING SHAPE

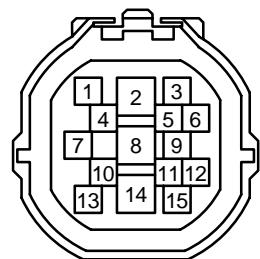
## &lt;FEMALE&gt; 15P Non-waterproof Type



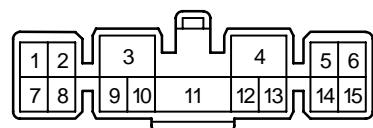
90980-10066



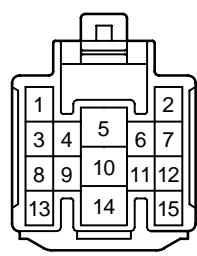
90980-10331



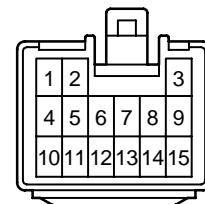
90980-10443



90980-10563



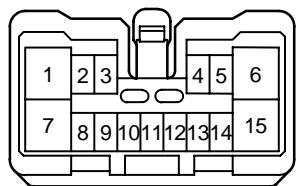
90980-10815



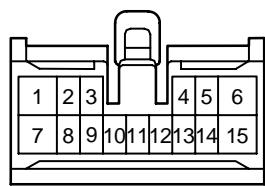
90980-10828

## TABLE OF HOUSING SHAPE

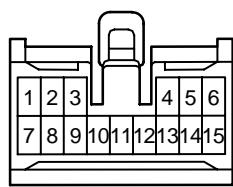
## &lt;FEMALE&gt; 15P Non-waterproof Type



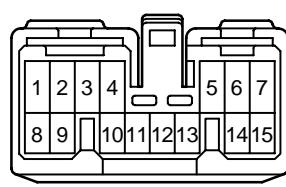
90980-11042



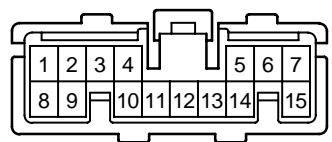
90980-11056



90980-11179



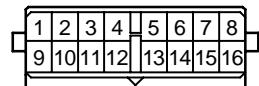
90980-11264



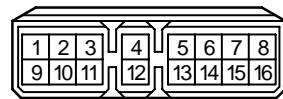
90980-11372

## TABLE OF HOUSING SHAPE

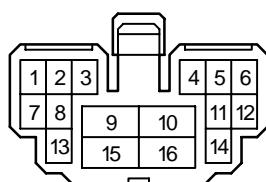
## &lt;FEMALE&gt; 16P Non-waterproof Type



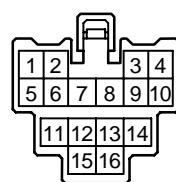
90980-10008



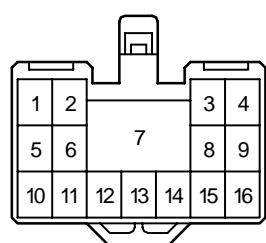
90980-10028



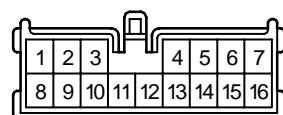
90980-10454



90980-10486



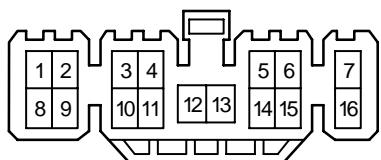
90980-10522



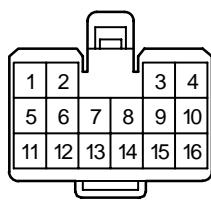
90980-10525

## TABLE OF HOUSING SHAPE

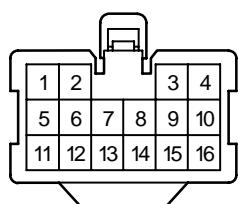
## &lt;FEMALE&gt; 16P Non-waterproof Type



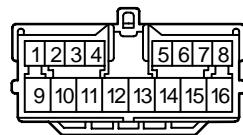
90980-10539



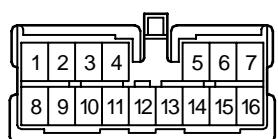
90980-10543



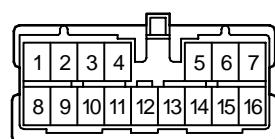
90980-10561



90980-10611



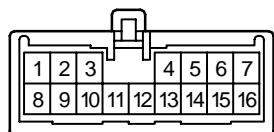
90980-10613



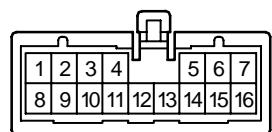
90980-10614

## TABLE OF HOUSING SHAPE

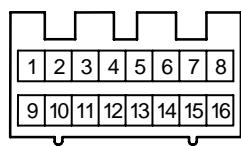
## &lt;FEMALE&gt; 16P Non-waterproof Type



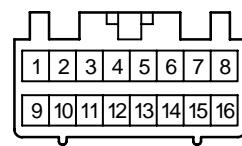
90980-10635



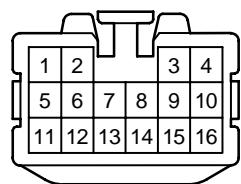
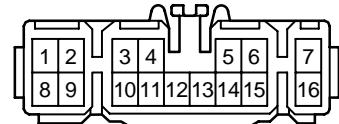
90980-10636



90980-10740



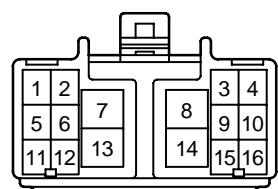
90980-10764

90980-10809  
90980-11445

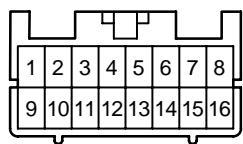
90980-10848

## TABLE OF HOUSING SHAPE

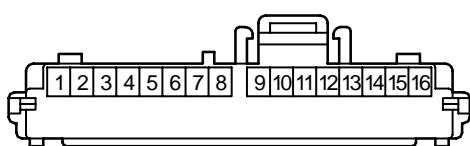
## &lt;FEMALE&gt; 16P Non-waterproof Type



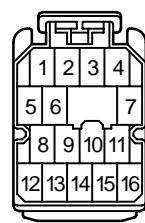
90980-10885



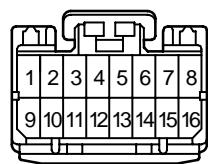
90980-11082



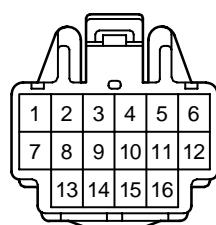
90980-11113



90980-11219



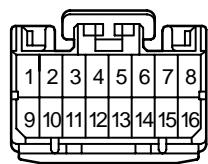
90980-11391



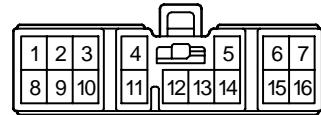
90980-11416

## TABLE OF HOUSING SHAPE

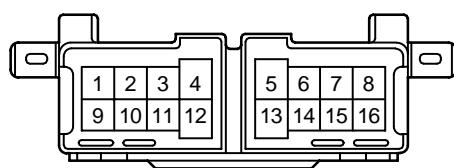
## &lt;FEMALE&gt; 16P Non-waterproof Type



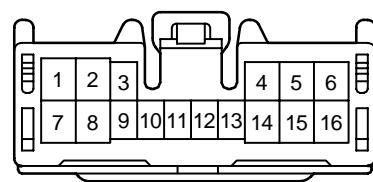
90980-11425



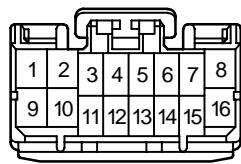
90980-11435



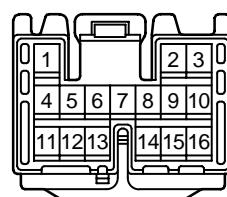
90980-11547



90980-11562



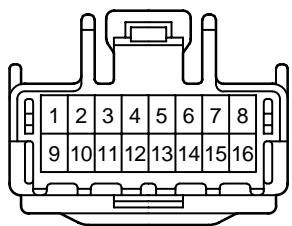
90980-11565



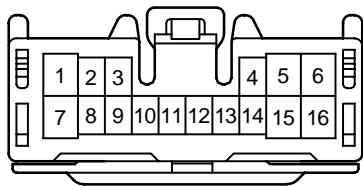
90980-11574

## TABLE OF HOUSING SHAPE

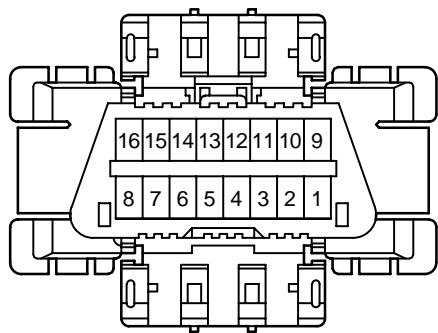
## &lt;FEMALE&gt; 16P Non-waterproof Type



90980-11648

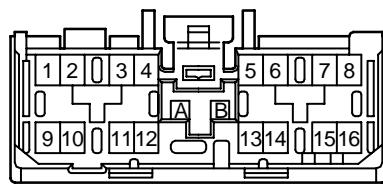


90980-11652

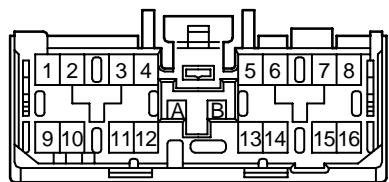


90980-11665

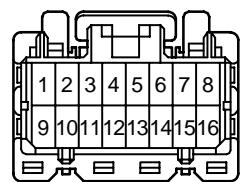
90980-11978



90980-11681



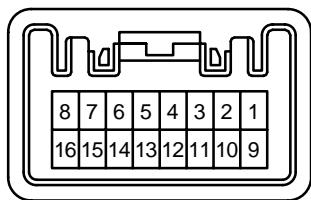
90980-11683



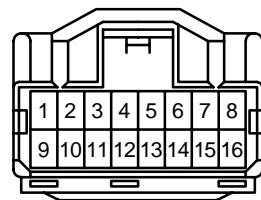
90980-11787

## TABLE OF HOUSING SHAPE

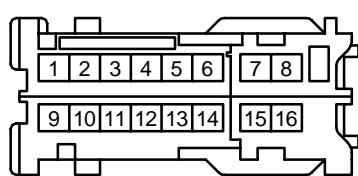
## &lt;FEMALE&gt; 16P Non-waterproof Type



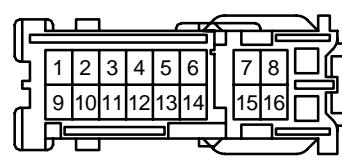
90980-12093



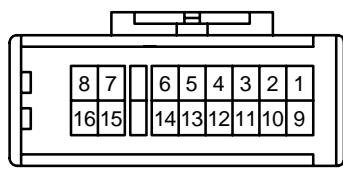
90980-12094



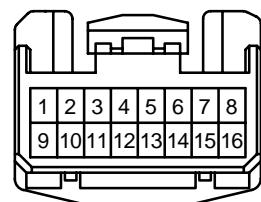
90980-12101



90980-12104

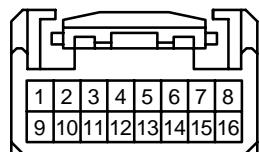


90980-12105



90980-12155

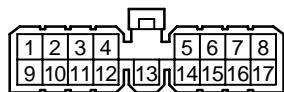
## TABLE OF HOUSING SHAPE

**<FEMALE> 16P Non-waterproof Type**

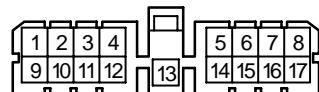
90980-12156


## TABLE OF HOUSING SHAPE

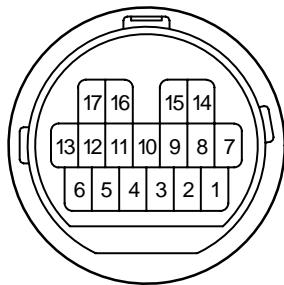
## &lt;FEMALE&gt; 17P Non-waterproof Type



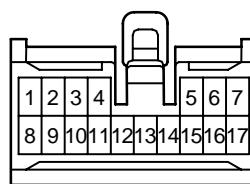
90980-10031



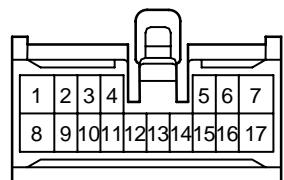
90980-10037



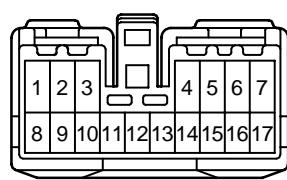
90980-10731  
90980-11417  
90980-11420



90980-11203



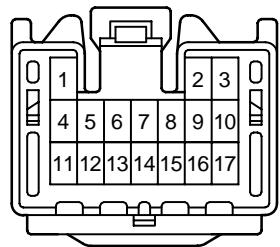
90980-11310



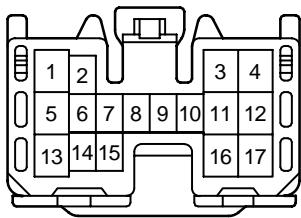
90980-11335

## TABLE OF HOUSING SHAPE

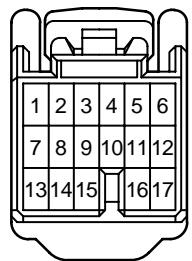
## &lt;FEMALE&gt; 17P Non-waterproof Type



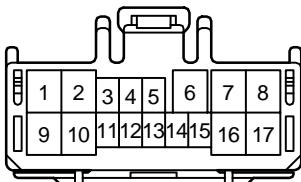
90980-11506



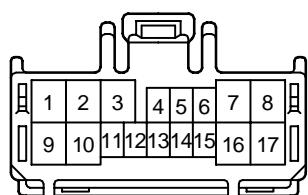
90980-11560



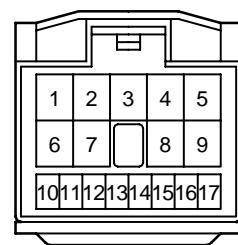
90980-11586



90980-11671



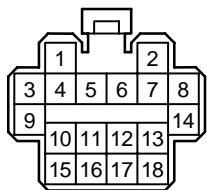
90980-11672



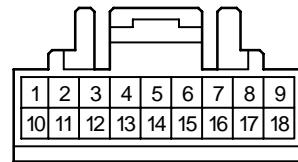
90980-11954

## TABLE OF HOUSING SHAPE

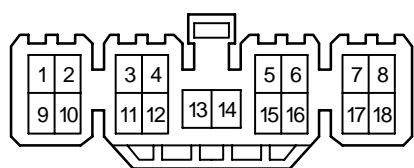
## &lt;FEMALE&gt; 18P Non-waterproof Type



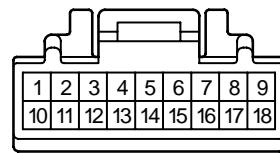
90980-10285



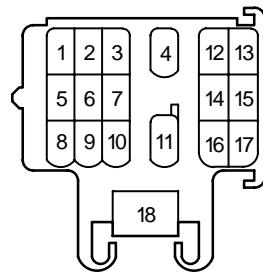
90980-10295



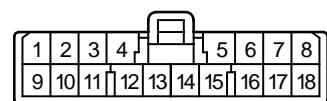
90980-10326



90980-10350



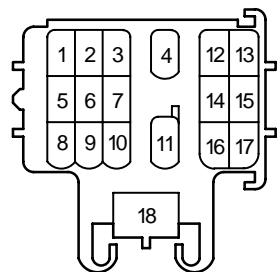
90980-10530



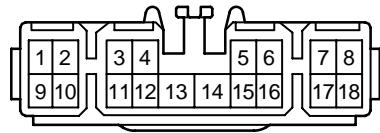
90980-10656

## TABLE OF HOUSING SHAPE

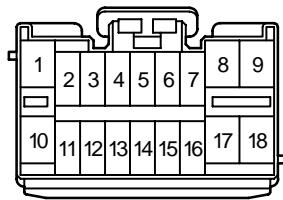
## &lt;FEMALE&gt; 18P Non-waterproof Type



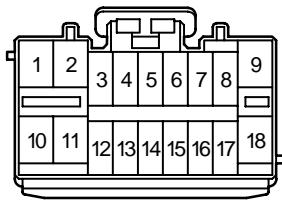
90980-10778



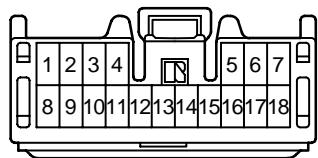
90980-10819



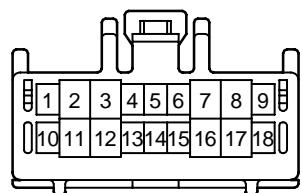
90980-11224



90980-11226



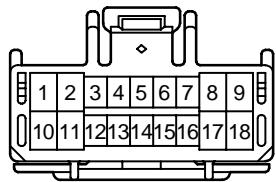
90980-11497



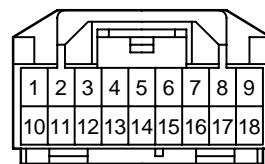
90980-11594

## TABLE OF HOUSING SHAPE

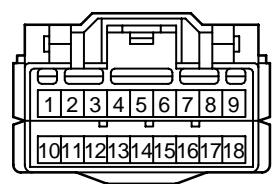
## &lt;FEMALE&gt; 18P Non-waterproof Type



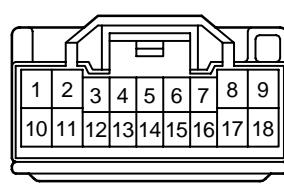
90980-11595



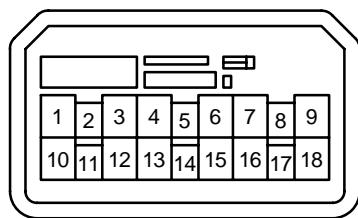
90980-11913



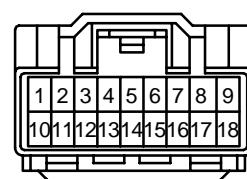
90980-11914



90980-11973



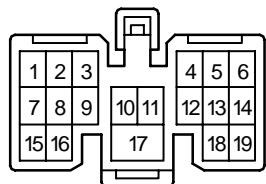
90980-12122



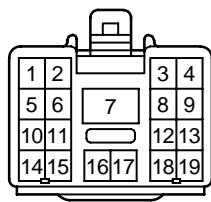
90980-12174

## TABLE OF HOUSING SHAPE

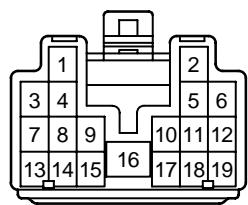
## &lt;FEMALE&gt; 19P Non-waterproof Type



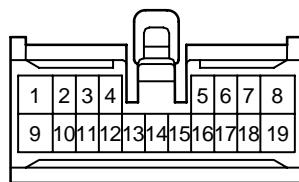
90980-10675



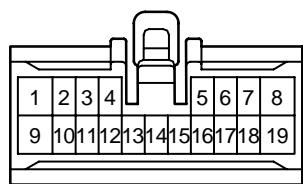
90980-10857



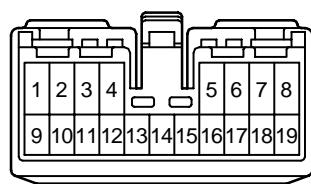
90980-10883



90980-11205



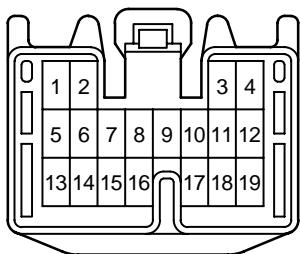
90980-11308



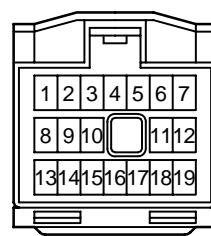
90980-11377

## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 19P Non-waterproof Type



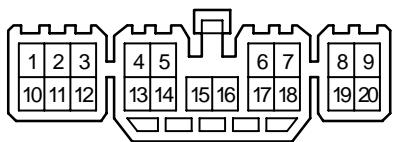
90980-11571



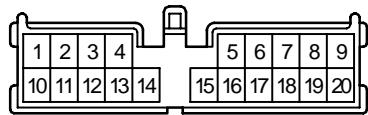
90980-11955

## TABLE OF HOUSING SHAPE

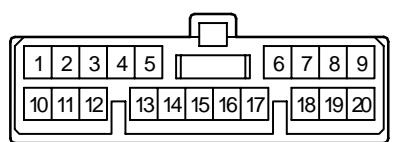
## &lt;FEMALE&gt; 20P Non-waterproof Type



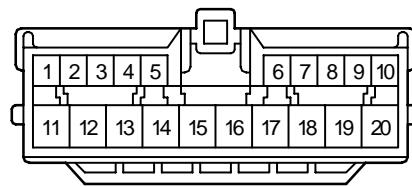
90980-10327



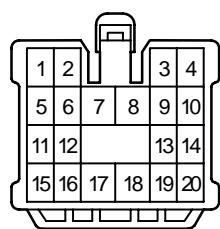
90980-10589



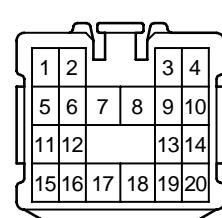
90980-10607



90980-10612

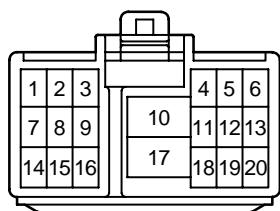


90980-10640

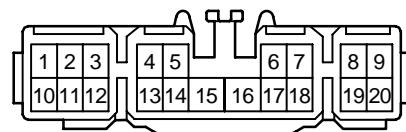
90980-10811  
90980-11441

## TABLE OF HOUSING SHAPE

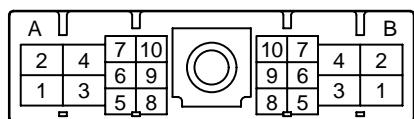
## &lt;FEMALE&gt; 20P Non-waterproof Type



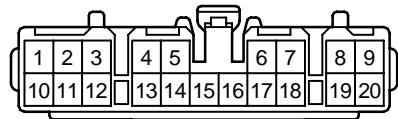
90980-10817



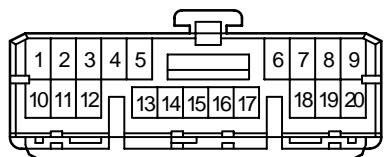
90980-10821



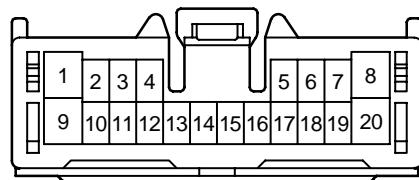
90980-10952



90980-11260



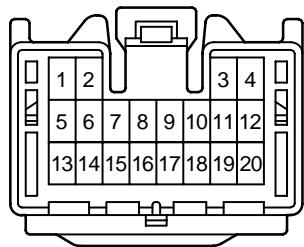
90980-11432



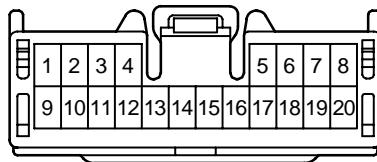
90980-11469

## TABLE OF HOUSING SHAPE

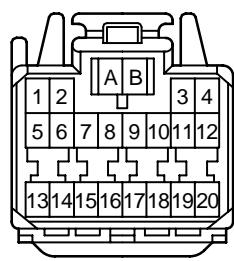
## &lt;FEMALE&gt; 20P Non-waterproof Type



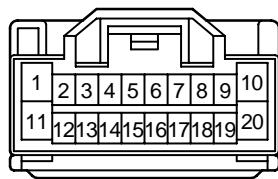
90980-11499



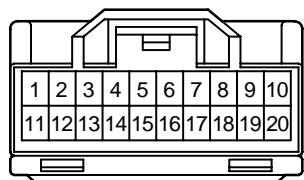
90980-11558



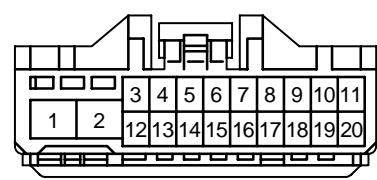
90980-11868



90980-11971



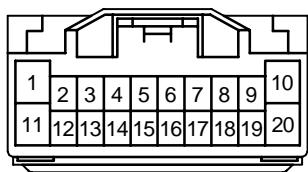
90980-11974



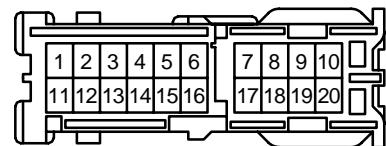
90980-12034

## TABLE OF HOUSING SHAPE

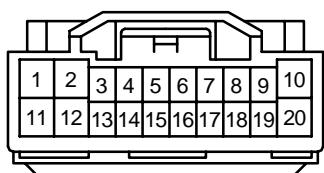
## &lt;FEMALE&gt; 20P Non-waterproof Type



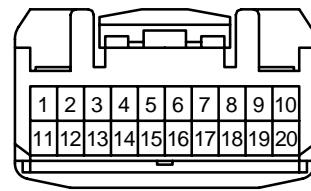
90980-12038



90980-12106



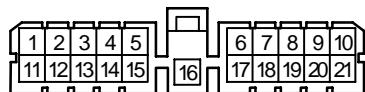
90980-12166



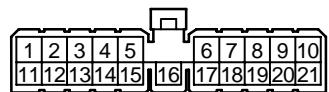
90980-12259

## TABLE OF HOUSING SHAPE

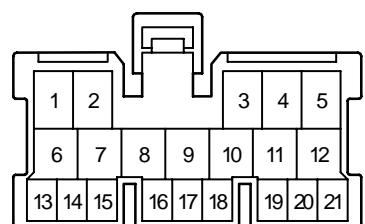
## &lt;FEMALE&gt; 21P Non-waterproof Type



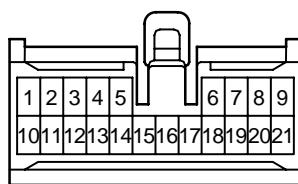
90980-10064



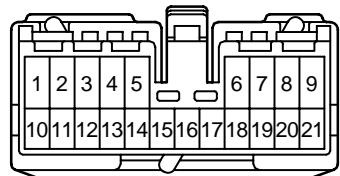
90980-10207



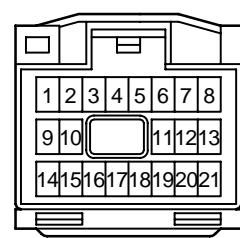
90980-10473



90980-11125

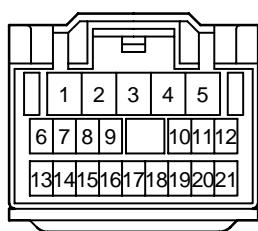


90980-11379



90980-11956

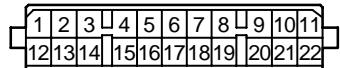
## TABLE OF HOUSING SHAPE

**<FEMALE> 21P Non-waterproof Type**

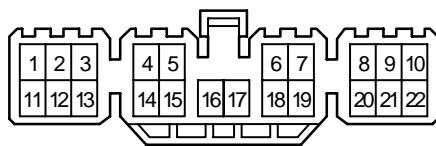
90980-11957

## TABLE OF HOUSING SHAPE

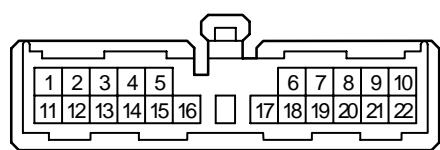
## &lt;FEMALE&gt; 22P Non-waterproof Type



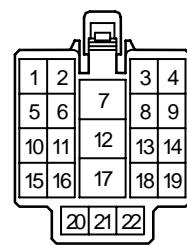
90980-10010



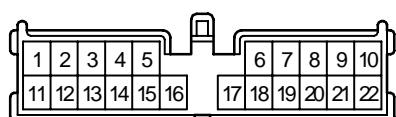
90980-10328



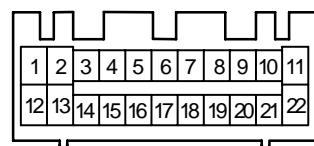
90980-10456



90980-10458



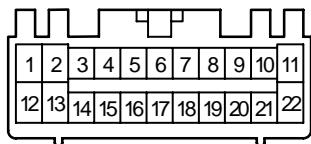
90980-10526



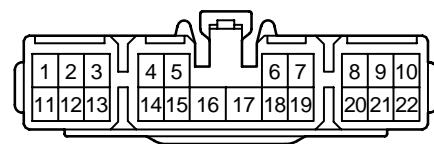
90980-10741

## TABLE OF HOUSING SHAPE

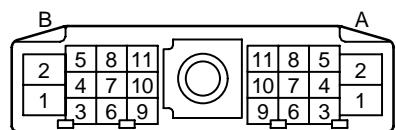
## &lt;FEMALE&gt; 22P Non-waterproof Type



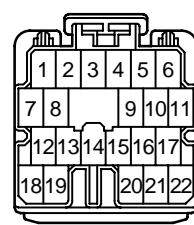
90980-10765



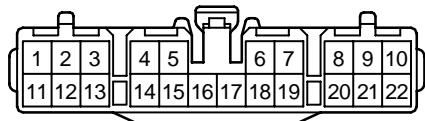
90980-10875



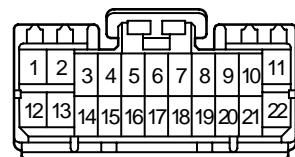
90980-10953



90980-11220



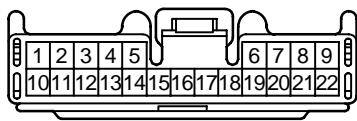
90980-11238



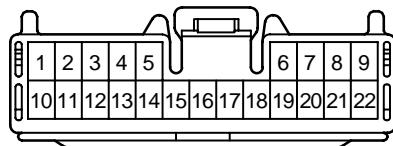
90980-11392

## TABLE OF HOUSING SHAPE

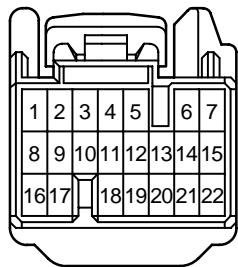
## &lt;FEMALE&gt; 22P Non-waterproof Type



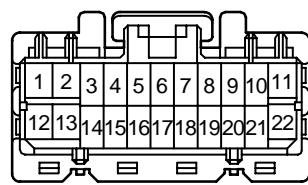
90980-11502



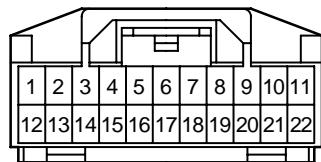
90980-11628



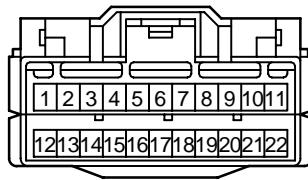
90980-11638



90980-11788



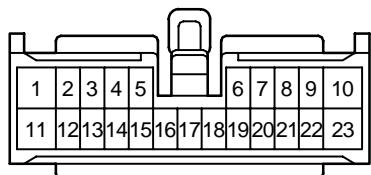
90980-11915



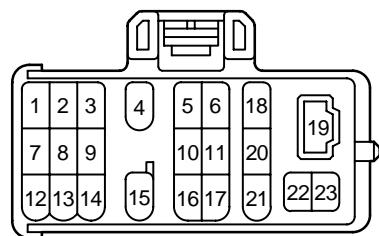
90980-11927

## TABLE OF HOUSING SHAPE

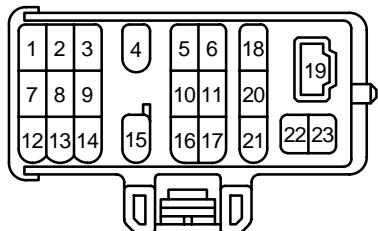
## &lt;FEMALE&gt; 23P Non-waterproof Type



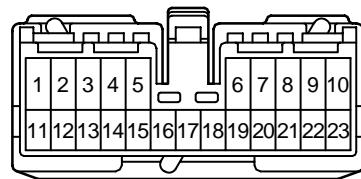
90980-10921



90980-11195

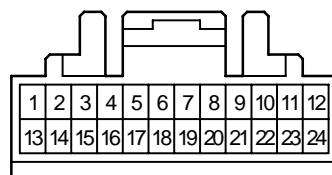


90980-11323

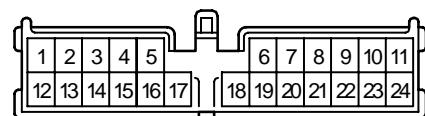


90980-11381

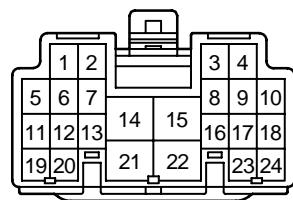
## TABLE OF HOUSING SHAPE

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

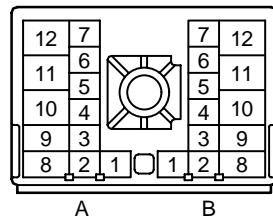
90980-10296



90980-10585



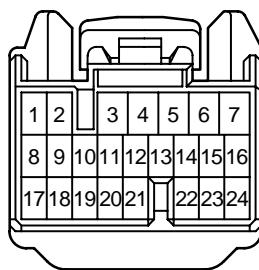
90980-10881



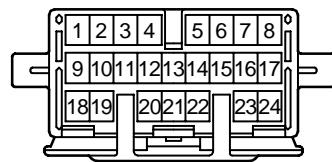
90980-10955

## TABLE OF HOUSING SHAPE

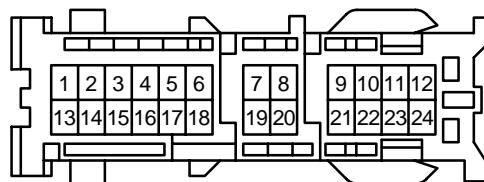
## &lt;FEMALE&gt; 24P Non-waterproof Type



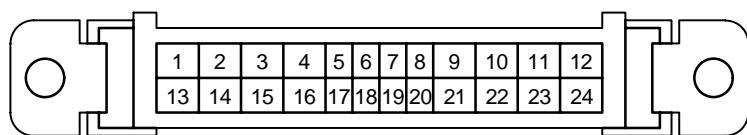
90980-11476



90980-11509

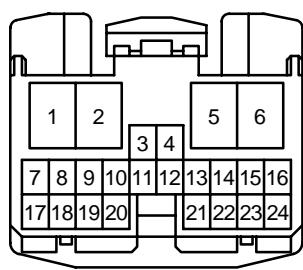


90980-12070

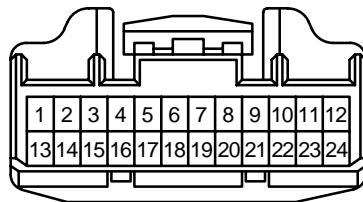


90980-12079

## TABLE OF HOUSING SHAPE

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

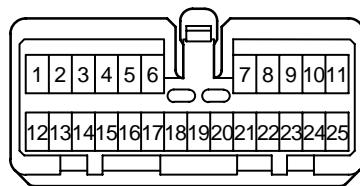
90980-12149



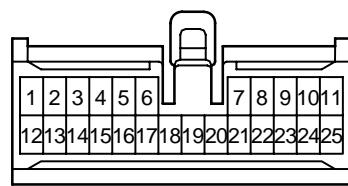
90980-12200

## TABLE OF HOUSING SHAPE

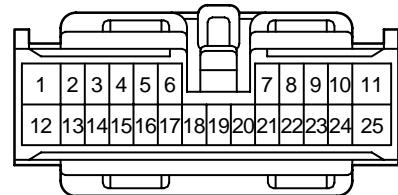
## &lt;FEMALE&gt; 25P Non-waterproof Type



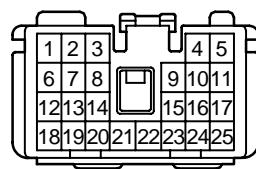
90980-11043



90980-11055

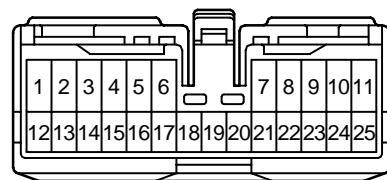


90980-11058

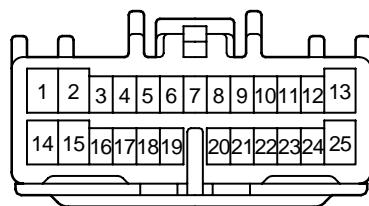


90980-11375

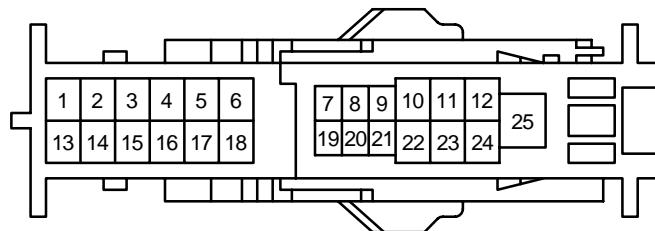
## TABLE OF HOUSING SHAPE

**<FEMALE> 25P Non-waterproof Type**

90980-11404



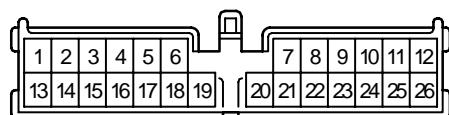
90980-11877



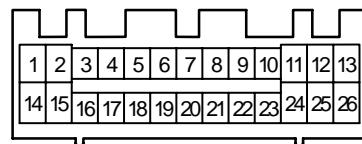
90980-12278

## TABLE OF HOUSING SHAPE

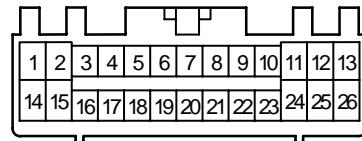
## &lt;FEMALE&gt; 26P Non-waterproof Type



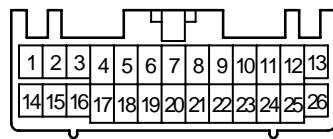
90980-10587



90980-10739

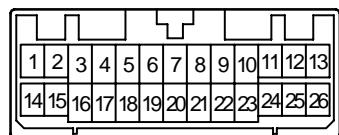


90980-10763

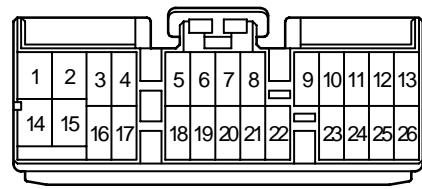


90980-10918

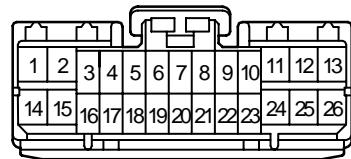
## TABLE OF HOUSING SHAPE

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

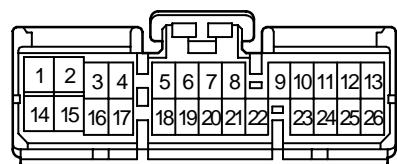
90980-10925



90980-11234



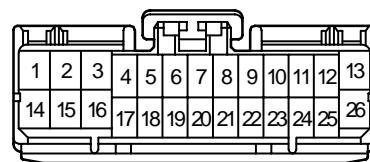
90980-11390



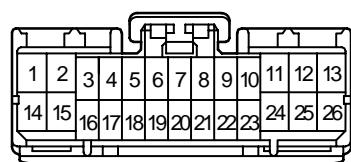
90980-11406

## TABLE OF HOUSING SHAPE

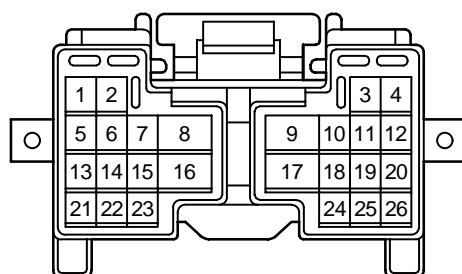
## &lt;FEMALE&gt; 26P Non-waterproof Type



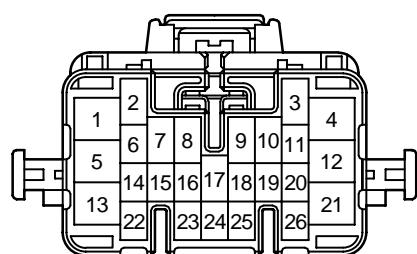
90980-11422



90980-11423

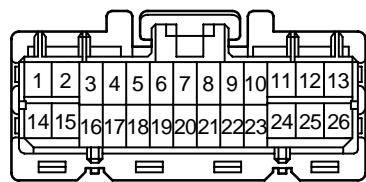


90980-11611

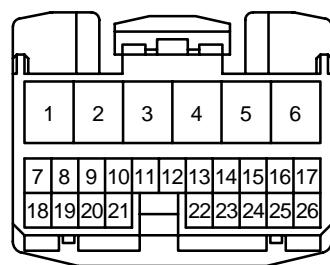


90980-11632

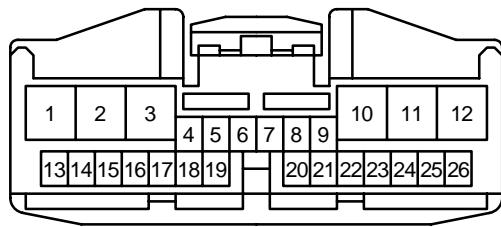
## TABLE OF HOUSING SHAPE

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

90980-11786

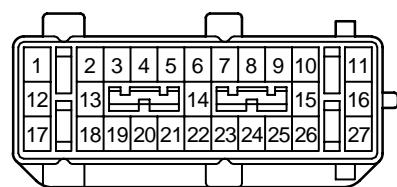


90980-12150



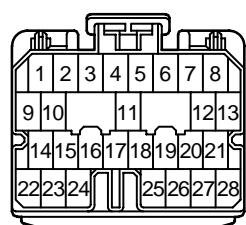
90980-12203

## TABLE OF HOUSING SHAPE

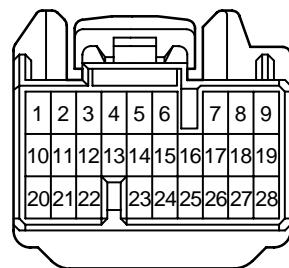
**<FEMALE> 27P Non-waterproof Type**

90980-11670

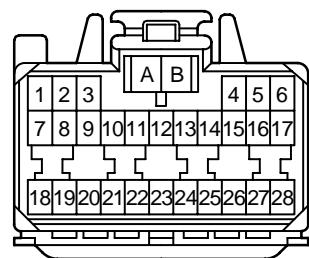
## TABLE OF HOUSING SHAPE

**<FEMALE> 28P Non-waterproof Type**

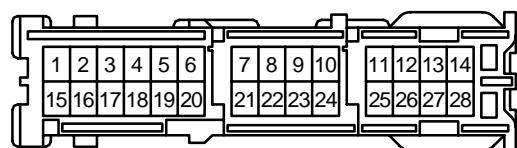
90980-11218



90980-11637



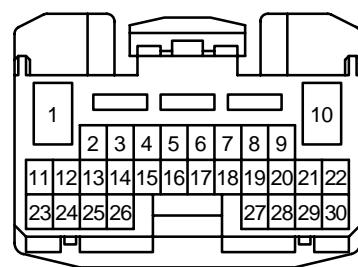
90980-11872



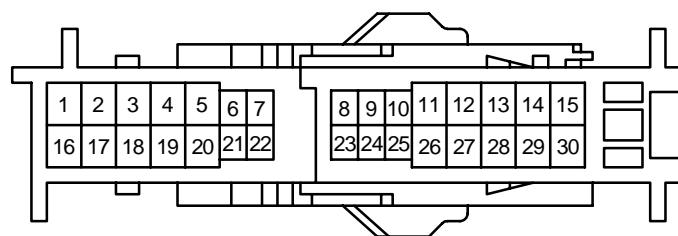
90980-12102

## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 30P Non-waterproof Type

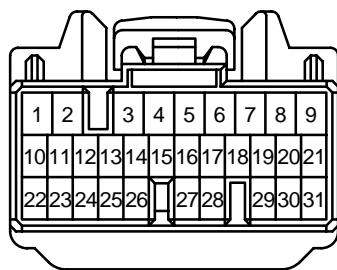


90980-12151

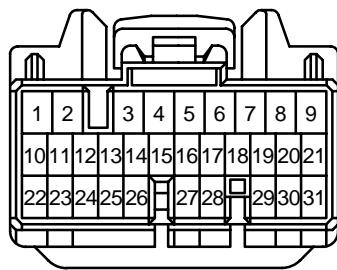


90980-12277

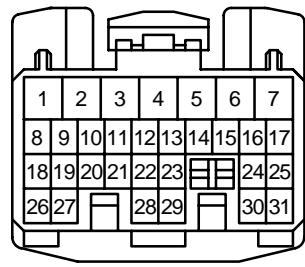
## TABLE OF HOUSING SHAPE

**<FEMALE> 31P Non-waterproof Type**

90980-11421



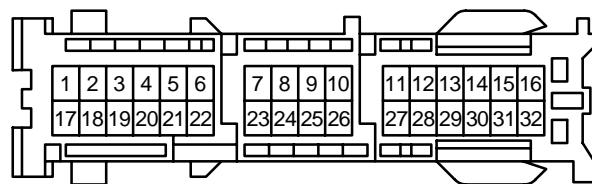
90980-11935



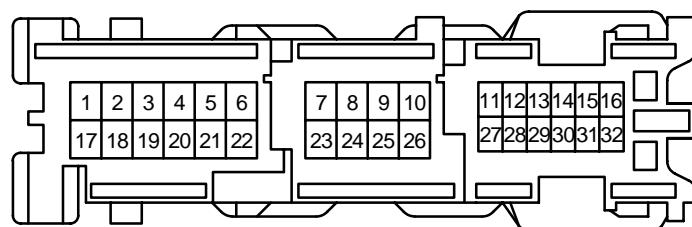
90980-12142

## TABLE OF HOUSING SHAPE

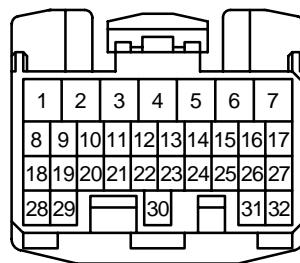
## &lt;FEMALE&gt; 32P Non-waterproof Type



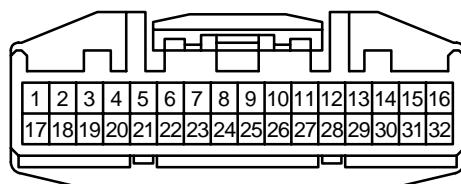
90980-12071



90980-12096

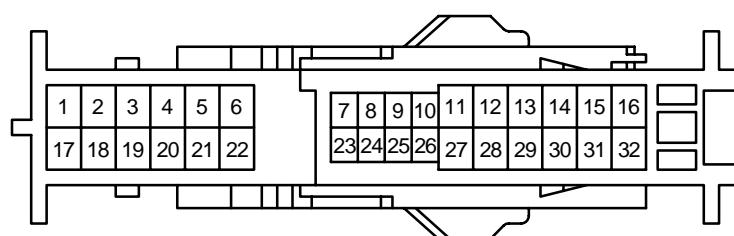


90980-12143



90980-12153

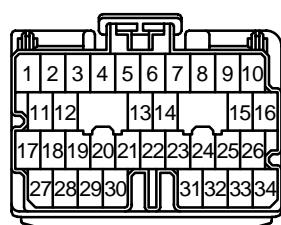
## TABLE OF HOUSING SHAPE

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

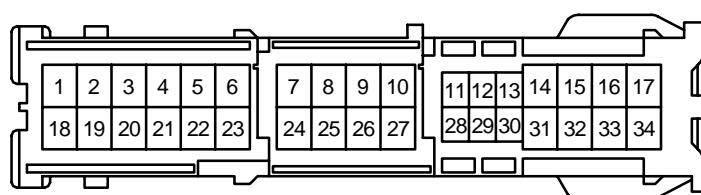
90980-12275

## TABLE OF HOUSING SHAPE

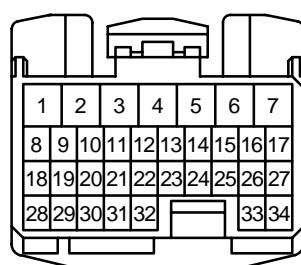
## &lt;FEMALE&gt; 34P Non-waterproof Type



90980-11221

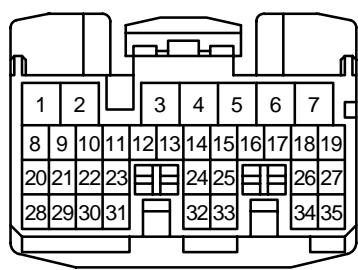


90980-12114

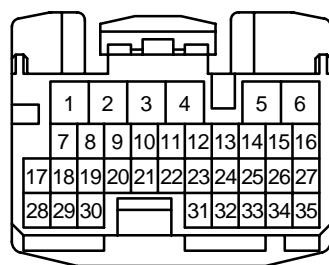


90980-12144

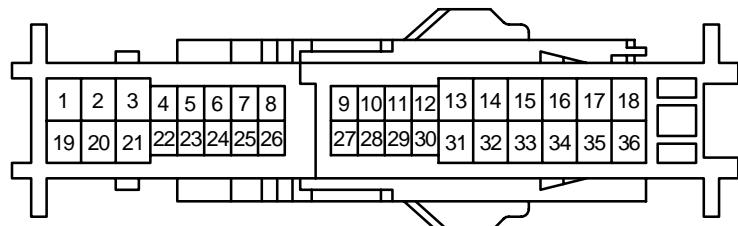
## TABLE OF HOUSING SHAPE

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

90980-12145



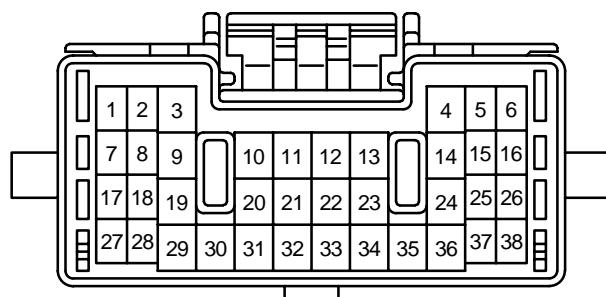
90980-12146



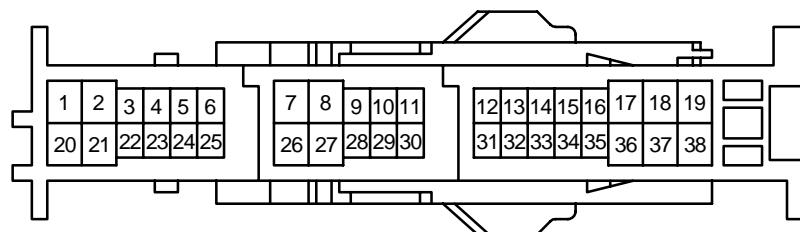
90980-12274

## TABLE OF HOUSING SHAPE

## &lt;FEMALE&gt; 38P Non-waterproof Type

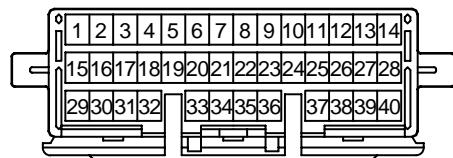


90980-11555

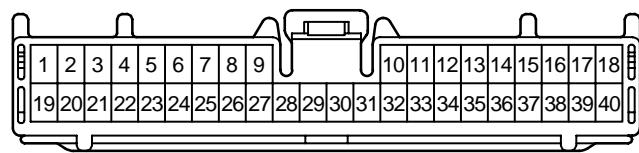


90980-12276

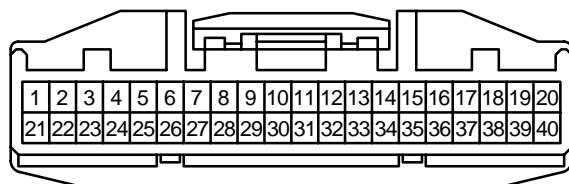
## TABLE OF HOUSING SHAPE

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

90980-11508

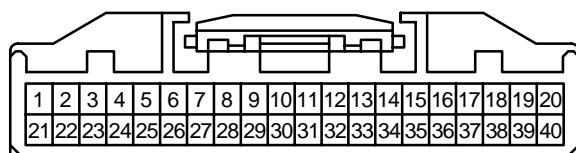


90980-11618



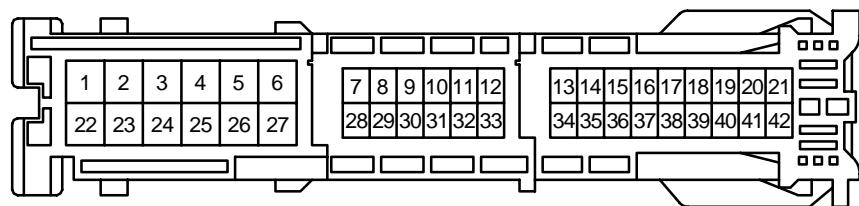
90980-12169

## TABLE OF HOUSING SHAPE

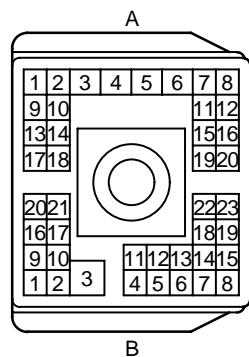
**<FEMALE> 40P Non-waterproof Type**

90980-12170

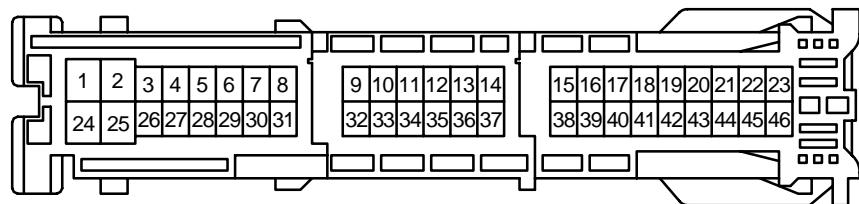
## TABLE OF HOUSING SHAPE

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

90980-12184



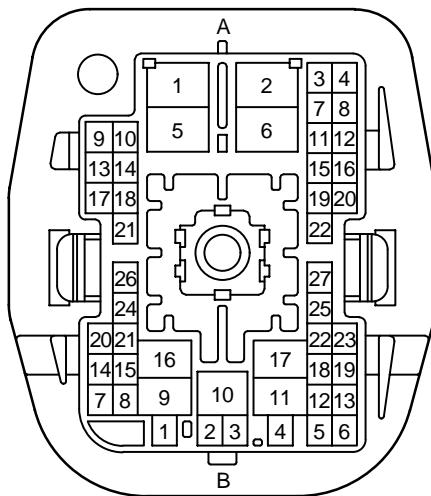
90980-11360



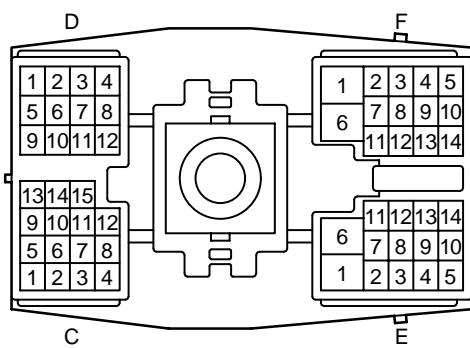
90980-12179

## TABLE OF HOUSING SHAPE

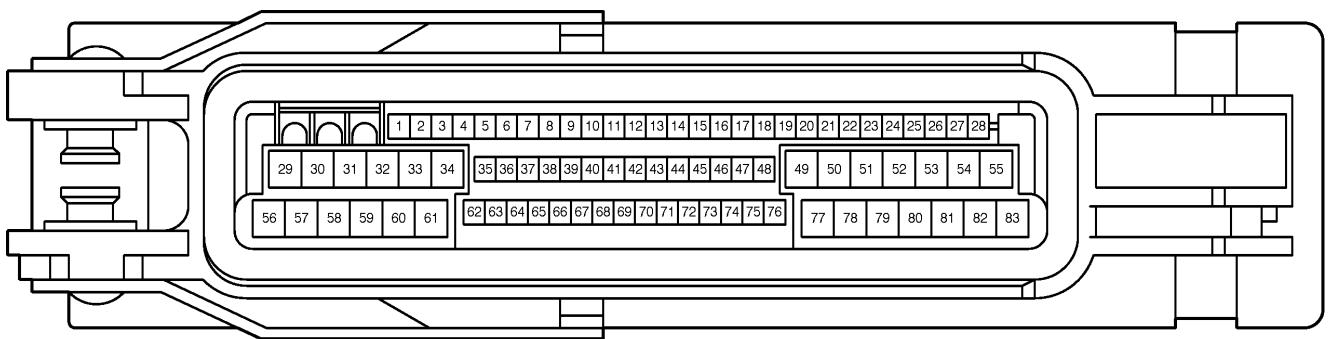
## &lt;FEMALE&gt; 49P, 55P, 83P Non-waterproof Type



90980-11431

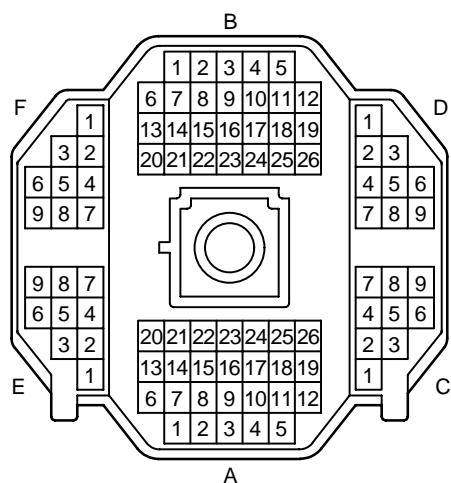


90980-11359



90980-11906

## TABLE OF HOUSING SHAPE

**<FEMALE> 88P Non-waterproof Type**

90980-10950

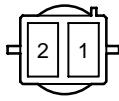
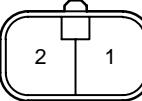
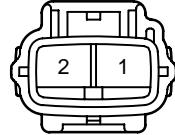
## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 1P Waterproof Type

			
90980-10114	90980-10125	90980-10200	90980-10240
			
90980-10246	90980-10438	90980-10836	90980-10892
			
90980-10982	90980-11006	90980-11183	90980-11270
			
90980-11962			

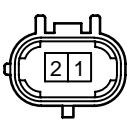
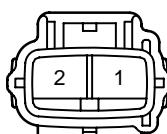
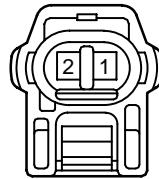
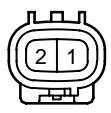
## TABLE OF HOUSING SHAPE

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

			
90980-10091	90980-10122	90980-10156 90980-10412	90980-10192
			
90980-10242	90980-10374	90980-10495	90980-10497
			
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

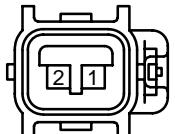
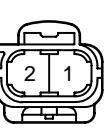
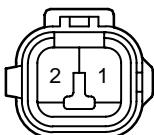
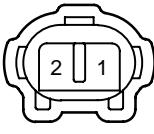
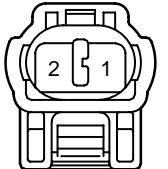
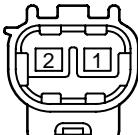
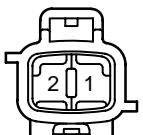
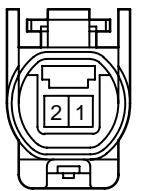
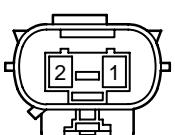
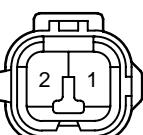
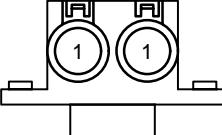
## TABLE OF HOUSING SHAPE

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

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

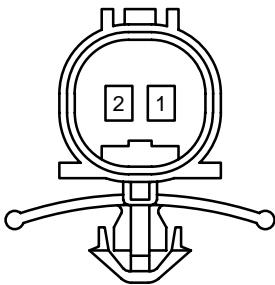
## TABLE OF HOUSING SHAPE

## &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

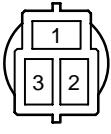
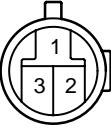
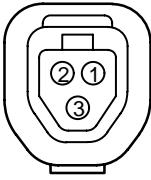
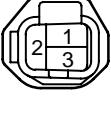
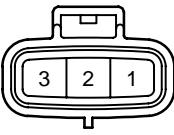
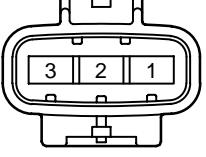
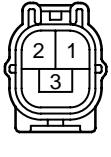
## TABLE OF HOUSING SHAPE

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

 90980-12194			

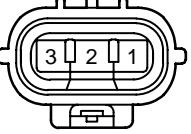
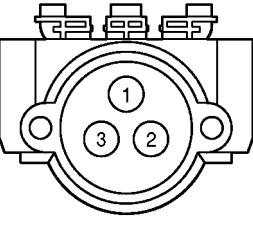
## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 3P Waterproof Type

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

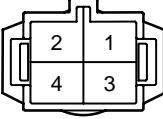
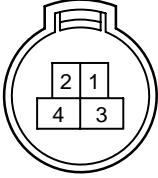
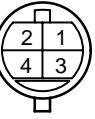
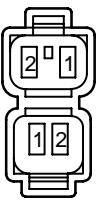
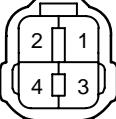
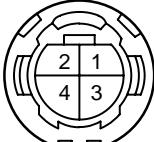
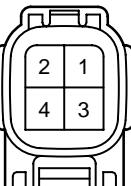
## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 3P Waterproof Type

			
90980-11293	90980-11341	90980-11348	90980-11607
			
90980-11622	90980-12131		

## TABLE OF HOUSING SHAPE

## &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

## TABLE OF HOUSING SHAPE

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

			
90980-11262 90980-11328	90980-11268	90980-11287	90980-11291
			
90980-11929	90980-12177		

## TABLE OF HOUSING SHAPE

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

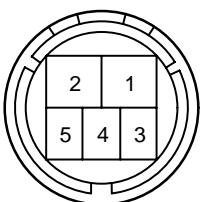
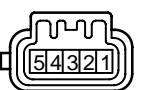
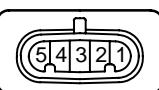
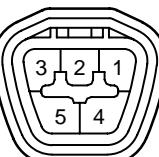
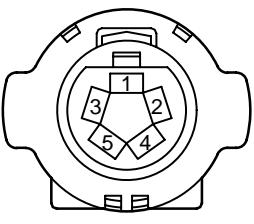
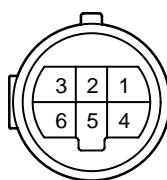
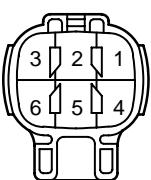
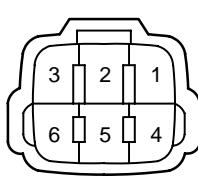
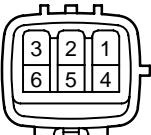
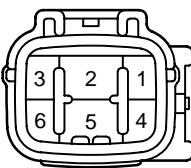
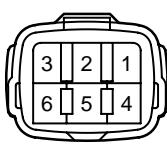
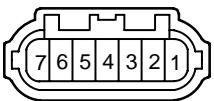
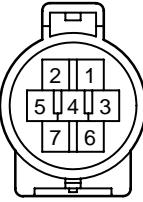
			
90980-10161	90980-10392	90980-10557 90980-10570	90980-10642
			
90980-10709	90980-10945	90980-11021	90980-11078
			
90980-11181	90980-11412	90980-11598	90980-11689

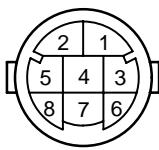
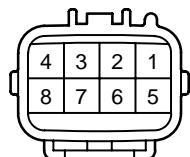
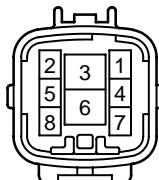
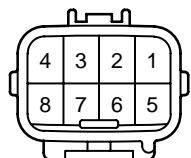
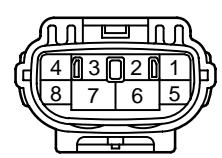
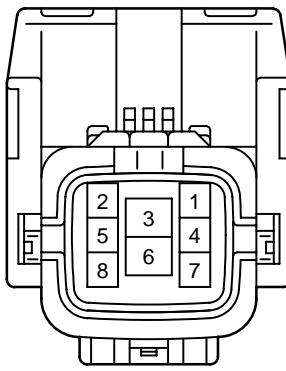
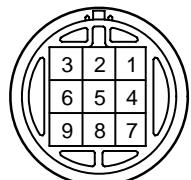
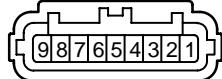
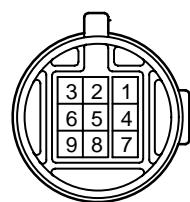
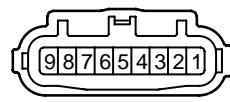
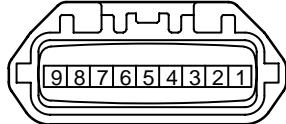
TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 6P, 7P Waterproof Type

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

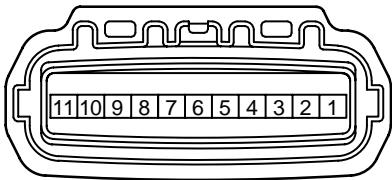
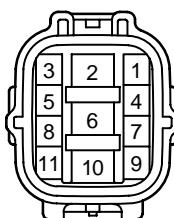
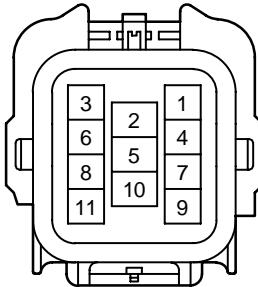
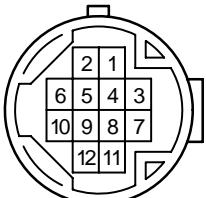
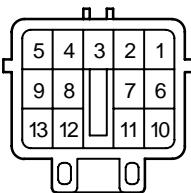
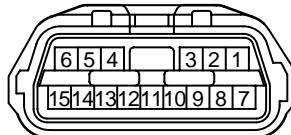
## TABLE OF HOUSING SHAPE

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

		
90980-10204	90980-10890	90980-10894
		
90980-10896	90980-11241	90980-11460
		
90980-10379	90980-10677	90980-10775
		
90980-10826	90980-11191	

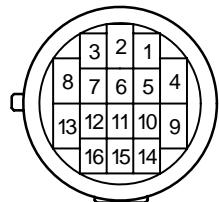
## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 11P, 12P, 13P, 15P Waterproof Type

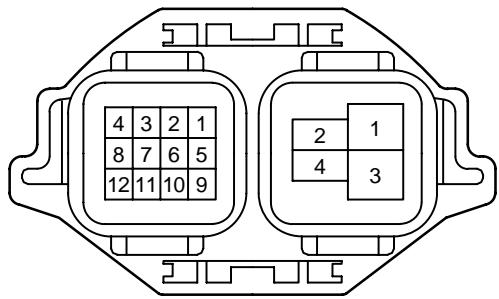
		
90980-11173	90980-11239	90980-11256
		
90980-11609	90980-10568	90980-11086
		
90980-10653	90980-11088	

## TABLE OF HOUSING SHAPE

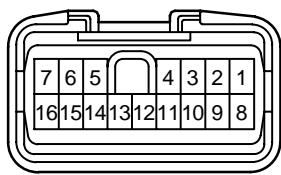
## &lt;MALE&gt; 16P, 17P Waterproof Type



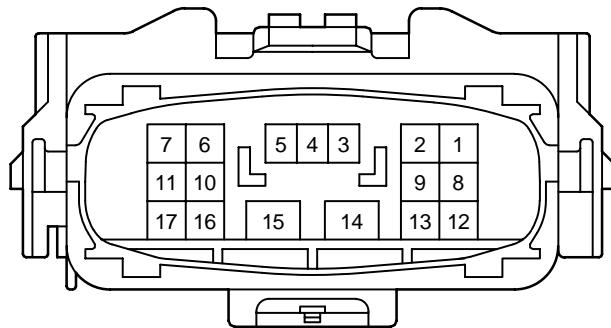
90980-10287



90980-10547



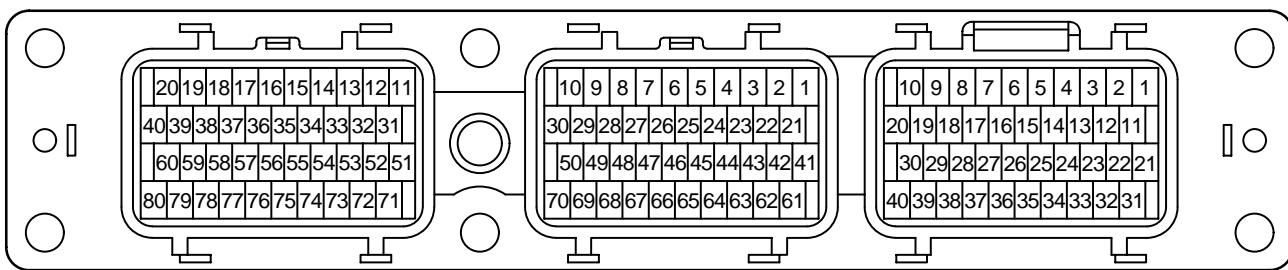
90980-11462



90980-11600

## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 120P Waterproof Type



90980-11213

## TABLE OF HOUSING SHAPE

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

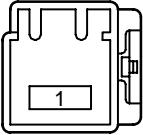
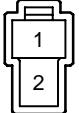
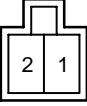
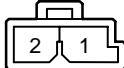
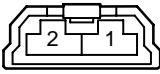
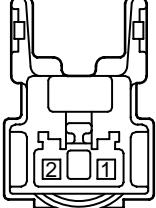
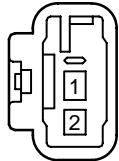
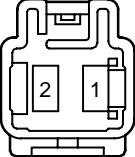
			
90980-10160	90980-10178	90980-10182	90980-10251
			
90980-10253	90980-10342	90980-10396	90980-10433 90980-10434
			
90980-10870 90980-11026 90980-11097	90980-10994	90980-11146	90980-11258
			
90980-11737	90980-11774	90980-12041	

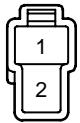
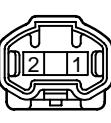
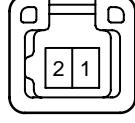
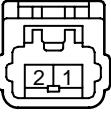
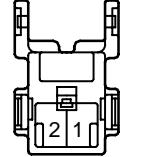
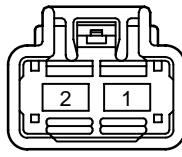
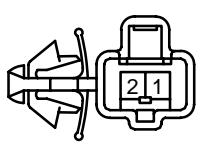
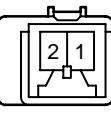
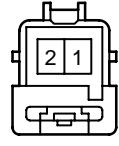
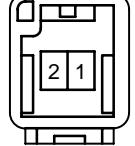
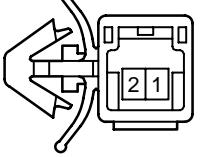
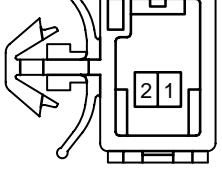
TABLE OF HOUSING SHAPE

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

			
90980-10011	90980-10038	90980-10213 90980-10305	90980-10255
			
90980-10286	90980-10297	90980-10344 90980-10346	90980-10354 90980-10437
			
90980-10356	90980-10424	90980-10620	90980-10687
			
90980-10824	90980-10833 90980-11299	90980-10849	90980-10859
			
90980-10905	90980-10915	90980-10934	90980-10958

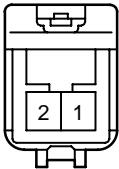
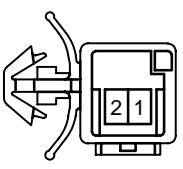
## TABLE OF HOUSING SHAPE

## &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

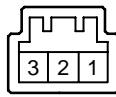
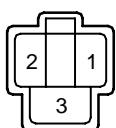
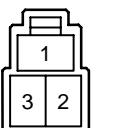
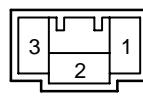
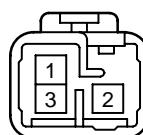
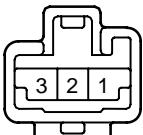
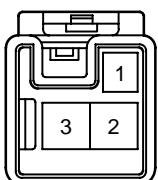
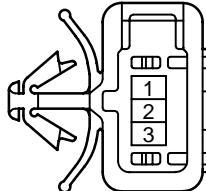
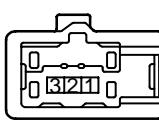
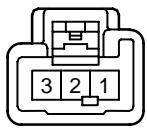
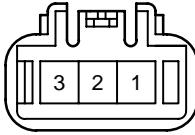
## TABLE OF HOUSING SHAPE

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

			
90980-11992	90980-12062		

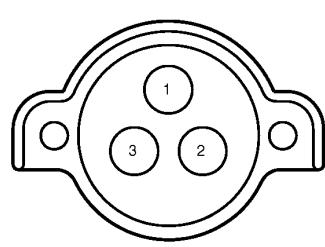
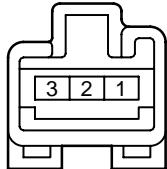
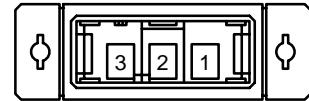
## TABLE OF HOUSING SHAPE

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

			
90980-10055 90980-10163	90980-10188	90980-10215 90980-10283 90980-10299	90980-10231
			
90980-10257 90980-10300 90980-10410	90980-10364 90980-10573	90980-10544	90980-10907
			
90980-10979	90980-11052	90980-11229	90980-11298
			
90980-11385	90980-11470	90980-11484	90980-11489
			
90980-11620	90980-11763	90980-11874	90980-11936

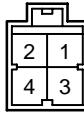
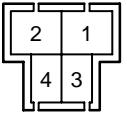
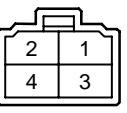
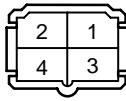
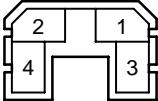
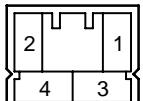
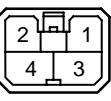
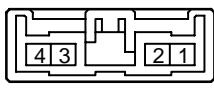
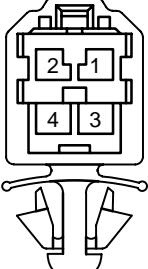
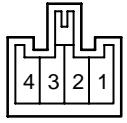
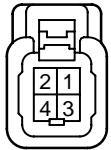
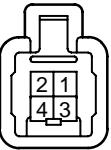
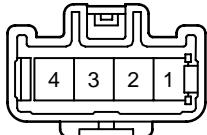
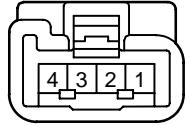
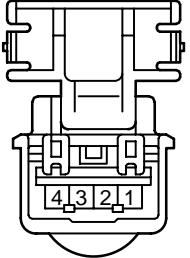
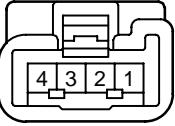
## TABLE OF HOUSING SHAPE

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

			
90980-11937	90980-11994	90980-12196	

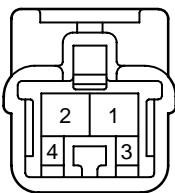
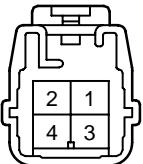
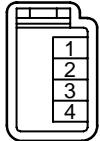
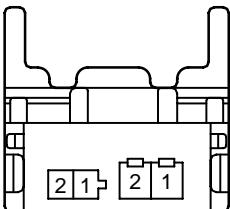
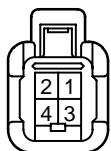
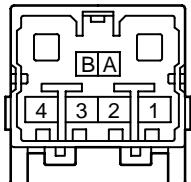
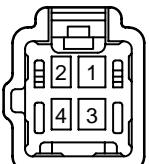
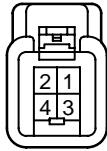
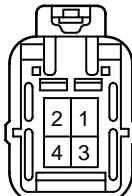
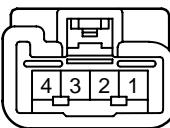
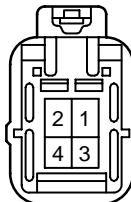
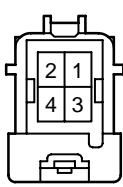
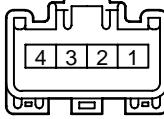
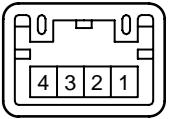
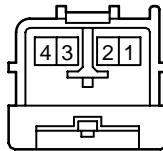
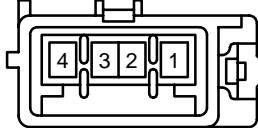
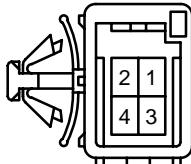
## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 4P Non-waterproof Type

			
90980-10001	90980-10126	90980-10144	90980-10170
			
90980-10219	90980-10237	90980-10259	90980-10306
			
90980-10399	90980-10466	90980-10502	90980-10503
			
90980-10600	90980-10691	90980-10794	90980-10858
			
90980-10866	90980-11012	90980-11023	90980-11100

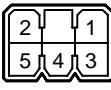
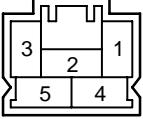
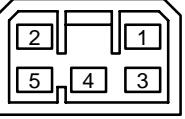
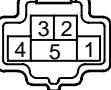
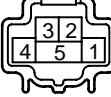
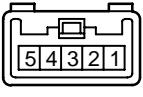
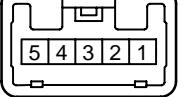
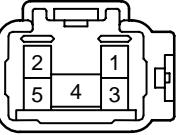
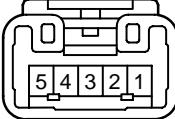
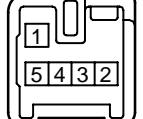
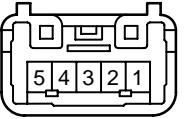
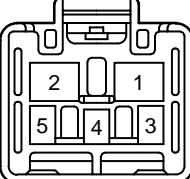
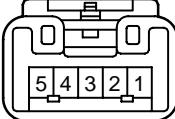
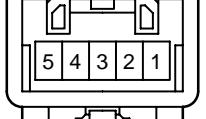
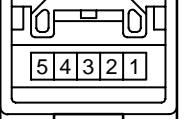
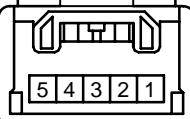
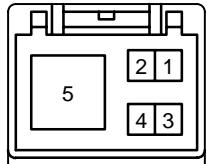
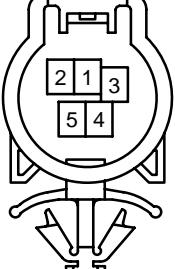
## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 4P Non-waterproof Type

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

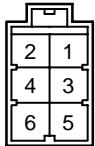
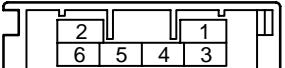
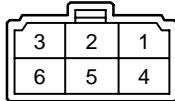
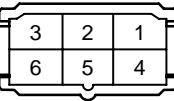
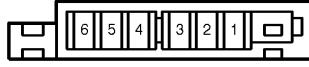
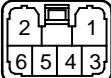
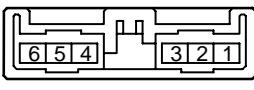
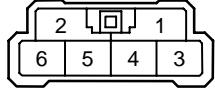
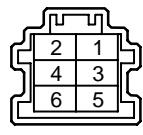
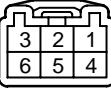
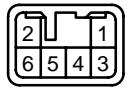
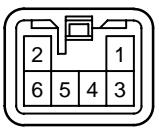
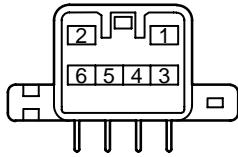
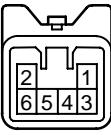
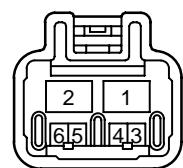
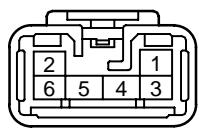
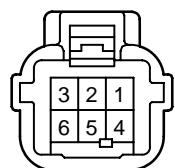
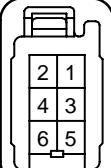
## TABLE OF HOUSING SHAPE

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

			
90980-10040	90980-10261	90980-10308	90980-10518
			
90980-10519	90980-10762	90980-10790	90980-10985
			
90980-11085	90980-11318	90980-11327	90980-11602
			
90980-11843	90980-11920	90980-11968	90980-12036
			
90980-12050	90980-12189		

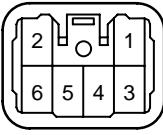
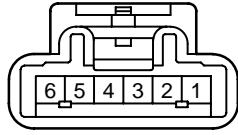
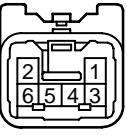
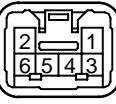
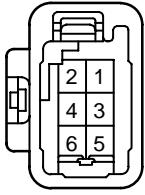
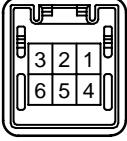
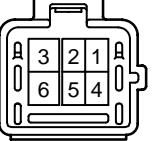
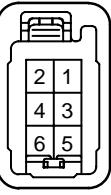
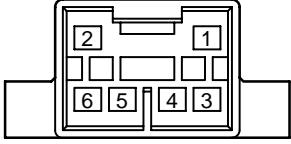
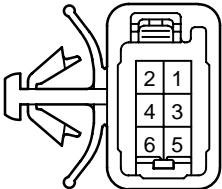
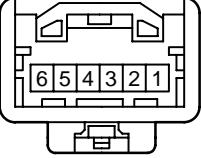
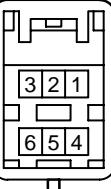
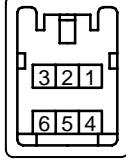
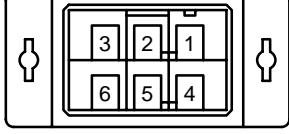
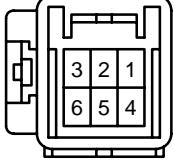
## TABLE OF HOUSING SHAPE

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

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

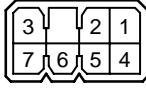
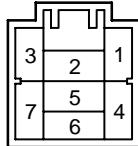
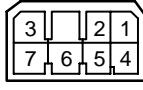
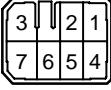
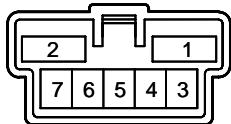
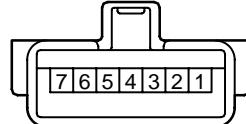
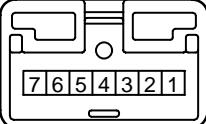
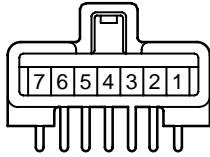
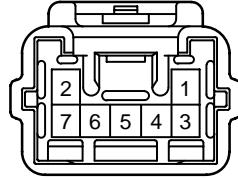
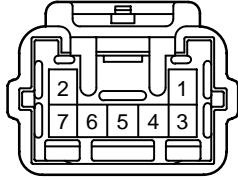
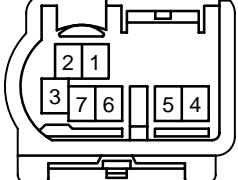
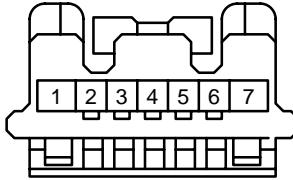
## TABLE OF HOUSING SHAPE

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

			
90980-11067	90980-11099	90980-11101	90980-11110
			
90980-11452	90980-11487	90980-11492	90980-11587
			
90980-11696	90980-11814	90980-12004	90980-12013
			
90980-12064	90980-12198	90980-12204	

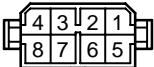
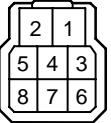
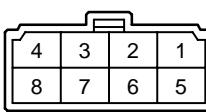
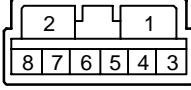
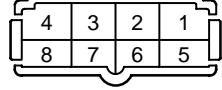
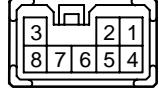
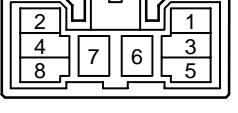
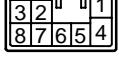
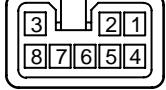
## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 7P Non-waterproof Type

			
90980-10042	90980-10263	90980-10310	90980-10451
			
90980-10459	90980-10728 90980-10771	90980-11164	90980-11339
			
90980-11402	90980-11528	90980-11739	90980-12059
			
90980-12092			

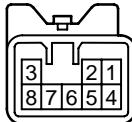
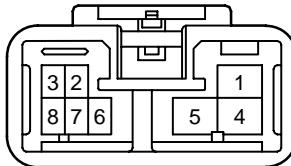
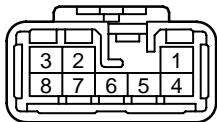
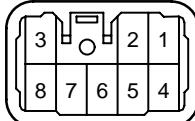
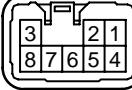
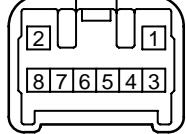
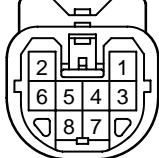
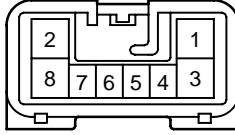
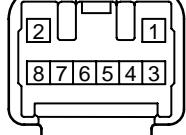
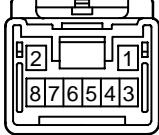
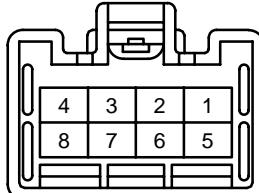
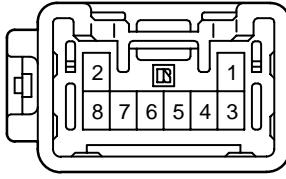
## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 8P Non-waterproof Type

		
90980-10018	90980-10147	90980-10174
		
90980-10208 90980-10210 90980-10383 90980-10411	90980-10225	90980-10279
		
90980-10360	90980-10403	90980-10418
		
90980-10430 90980-10546	90980-10462	90980-10769

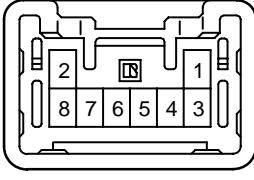
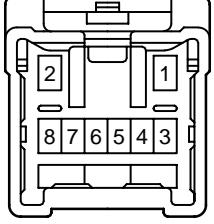
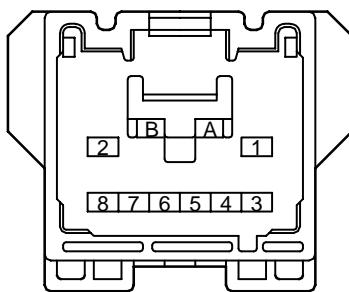
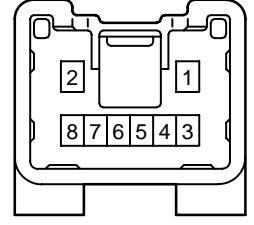
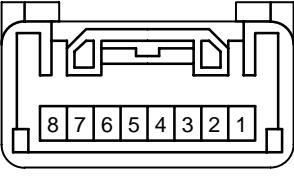
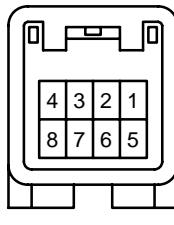
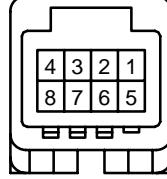
## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 8P Non-waterproof Type

	 90980-10876 90980-11438	
		
		
		

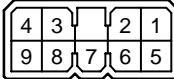
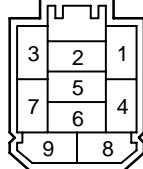
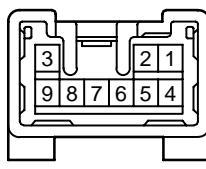
## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 8P Non-waterproof Type

		
90980-11588	90980-11623	90980-11629
		
90980-11636	90980-12061	90980-12112
		
90980-12220		

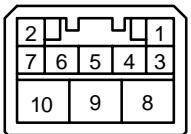
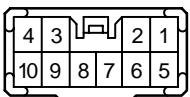
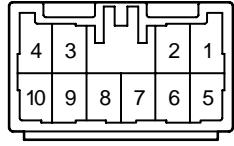
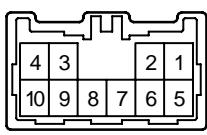
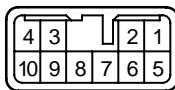
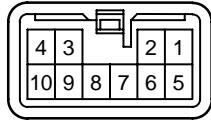
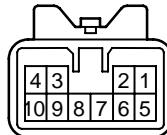
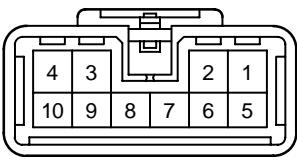
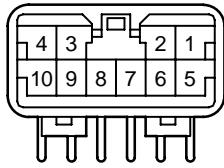
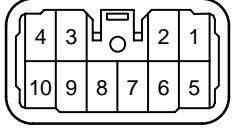
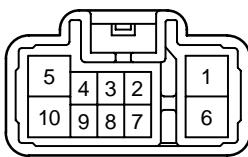
## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 9P Non-waterproof Type

		
90980-10044	90980-10265	90980-10317
		
90980-11534	90980-11543	90980-11709

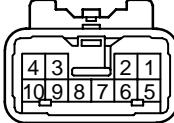
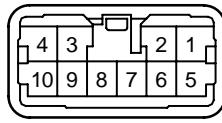
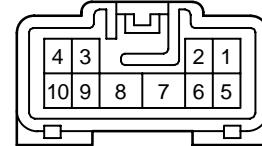
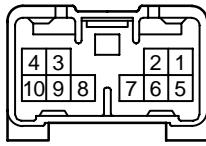
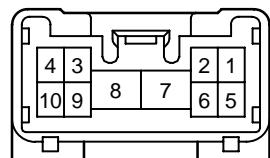
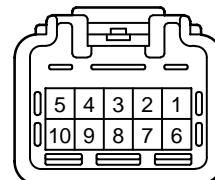
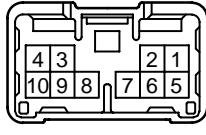
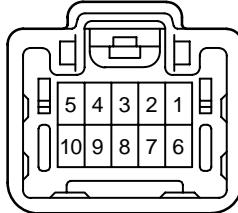
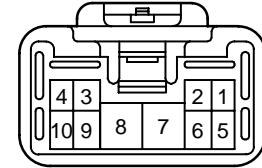
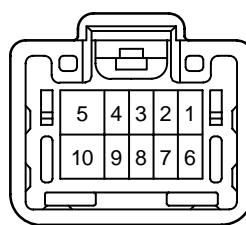
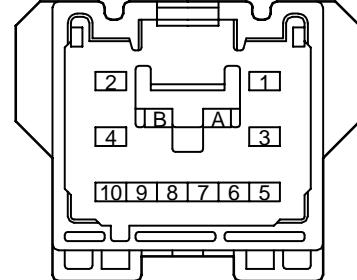
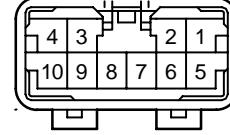
## TABLE OF HOUSING SHAPE

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

		
90980-10176	90980-10281	90980-10375 90980-10417 90980-10427 90980-10516
		
90980-10468	90980-10527 90980-10719	90980-10666
		
90980-10693	90980-10800	90980-10861
		
90980-10865 90980-11419	90980-10961	90980-10992

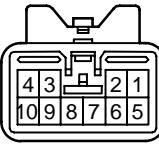
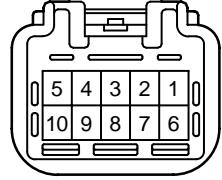
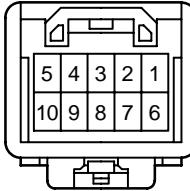
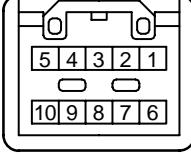
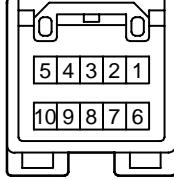
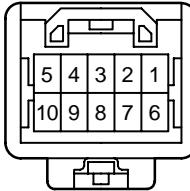
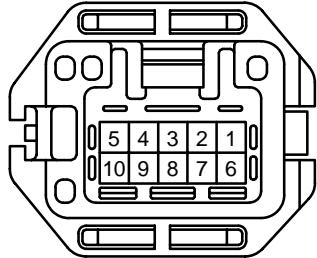
## TABLE OF HOUSING SHAPE

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

		
90980-11102	90980-11325 90980-11331	90980-11365
		
90980-11449	90980-11526	90980-11536
		
90980-11544	90980-11580	90980-11596
		
90980-11613	90980-11641	90980-11752

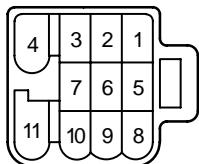
## TABLE OF HOUSING SHAPE

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

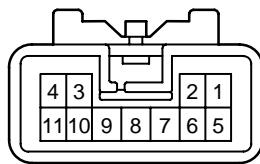
		
90980-11757	90980-11823	90980-11922
		
90980-11993	90980-12009	90980-12023
		
90980-12249		

## TABLE OF HOUSING SHAPE

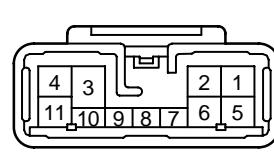
## &lt;MALE&gt; 11P Non-waterproof Type



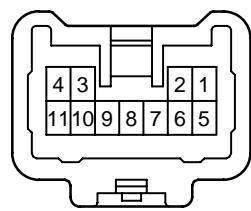
90980-10531



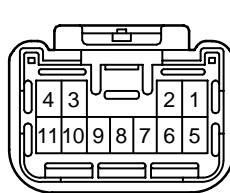
90980-10829



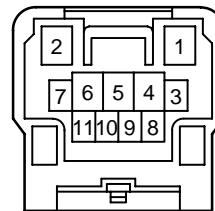
90980-10872



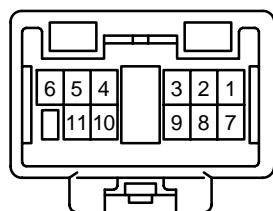
90980-11200



90980-11538



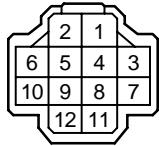
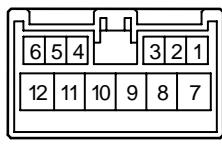
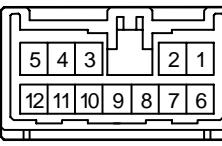
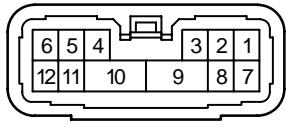
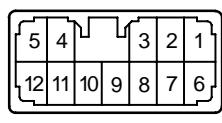
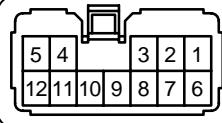
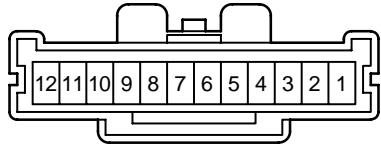
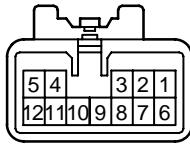
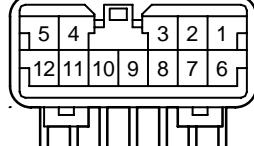
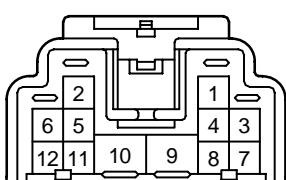
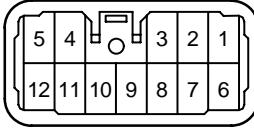
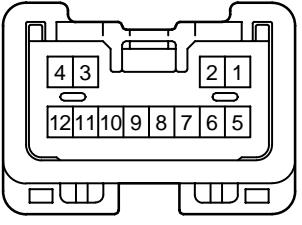
90908-12002



90980-12250

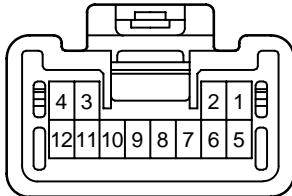
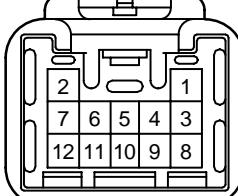
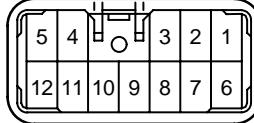
## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 12P Non-waterproof Type

		
90980-10149	90980-10405	90980-10407 90980-10529
		
90980-10415	90980-10436 90980-10440	90980-10513
		
90980-10564	90980-10802	90980-10864
		
90980-10878	90980-10938 90980-11105	90980-11474

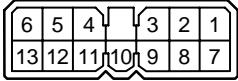
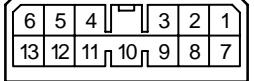
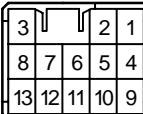
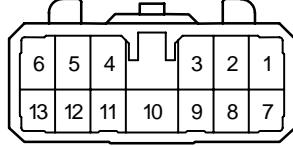
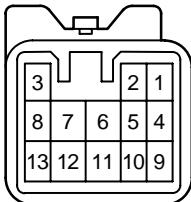
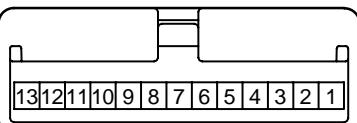
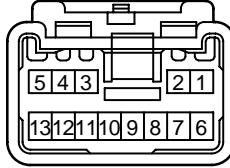
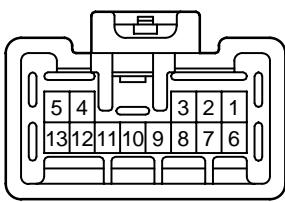
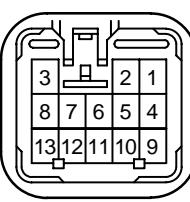
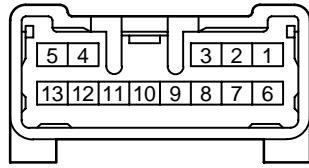
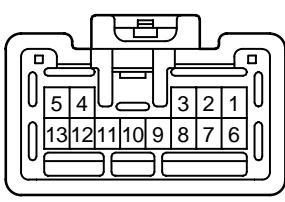
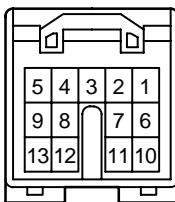
## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 12P Non-waterproof Type

		
90980-11500	90980-11530	90980-11747

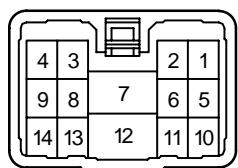
## TABLE OF HOUSING SHAPE

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

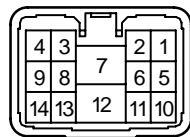
		
90980-10032	90980-10061	90980-10323
		
90980-10479	90980-10804	90980-11198
		
90980-11393	90980-11541	90980-11568
		
90980-11635	90980-11694	90980-11951

## TABLE OF HOUSING SHAPE

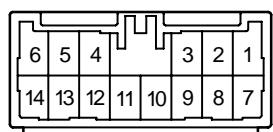
## &lt;MALE&gt; 14P Non-waterproof Type



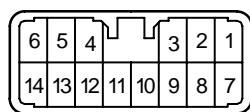
90980-10329



90980-10422

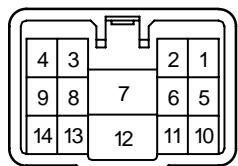


90980-10470

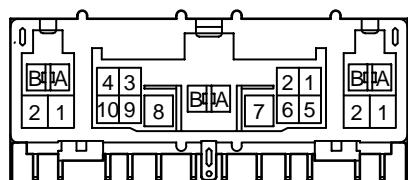


90980-10506

90980-10715



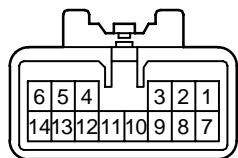
90980-10545



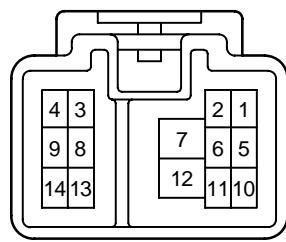
90980-10767

## TABLE OF HOUSING SHAPE

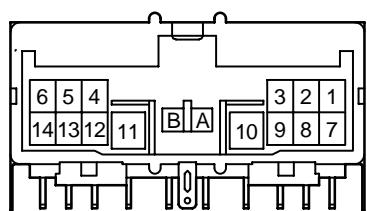
## &lt;MALE&gt; 14P Non-waterproof Type



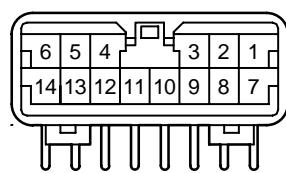
90980-10806



90980-10812

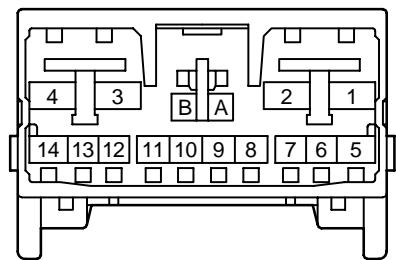


90980-10851

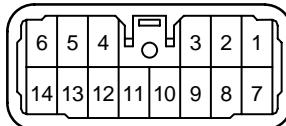


90980-10971

90980-11265



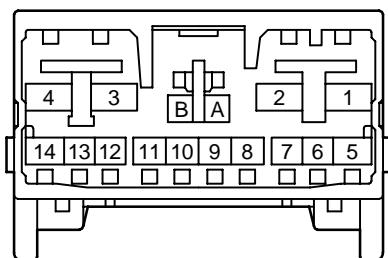
90980-11312



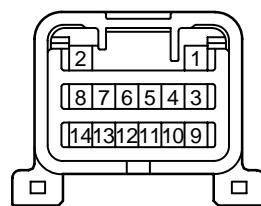
90980-11337

## TABLE OF HOUSING SHAPE

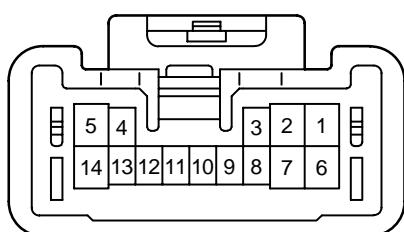
## &lt;MALE&gt; 14P Non-waterproof Type



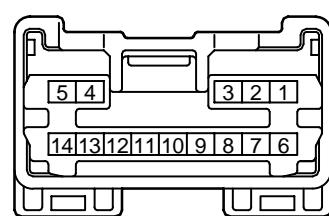
90980-11464



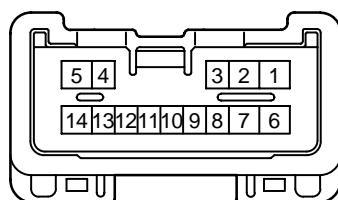
90980-11510



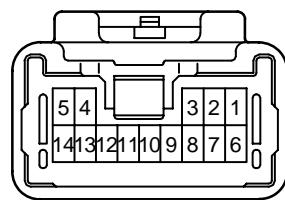
90980-11590



90980-11644  
90980-11743  
90980-11744

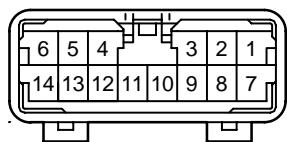


90980-11651

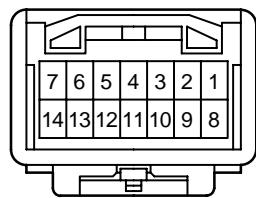


90980-11654

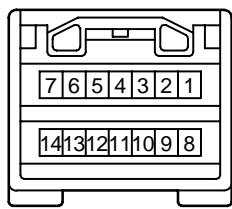
## TABLE OF HOUSING SHAPE

**<MALE> 14P Non-waterproof Type**

90980-11753



90980-11910

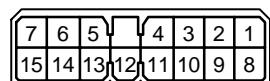


90980-11969

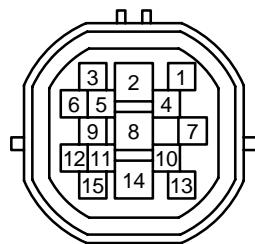
90980-12015

## TABLE OF HOUSING SHAPE

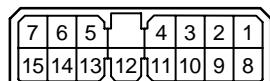
## &lt;MALE&gt; 15P Non-waterproof Type



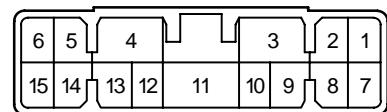
90980-10065



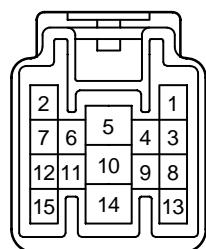
90980-10442



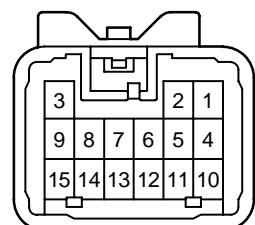
90980-10461



90980-10562



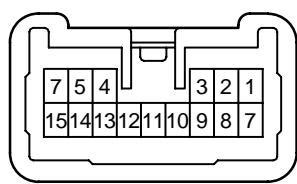
90980-10814



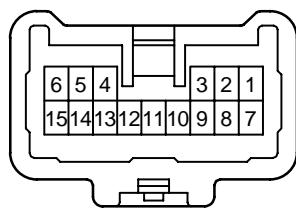
90980-10827

## TABLE OF HOUSING SHAPE

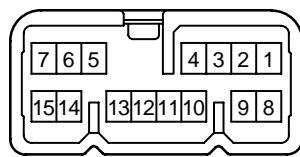
## &lt;MALE&gt; 15P Non-waterproof Type



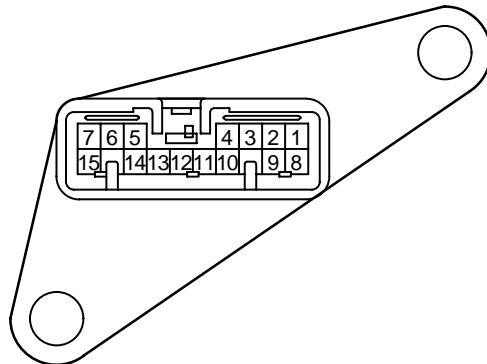
90980-11180



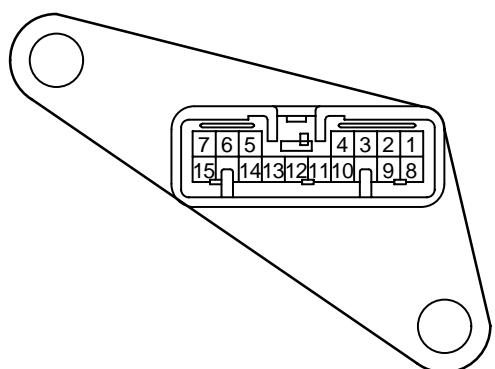
90980-11201



90980-11263



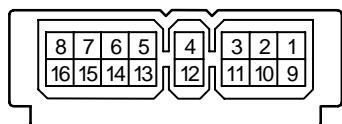
90980-11370



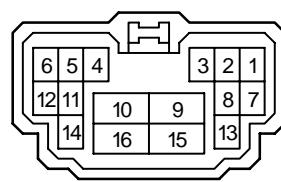
90980-11371

## TABLE OF HOUSING SHAPE

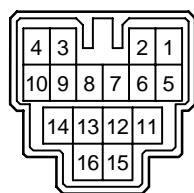
## &lt;MALE&gt; 16P Non-waterproof Type



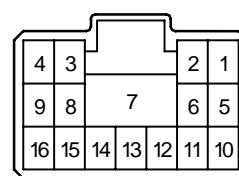
90980-10026



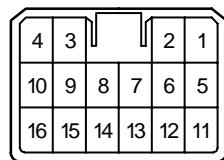
90980-10453



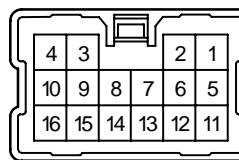
90980-10485



90980-10521



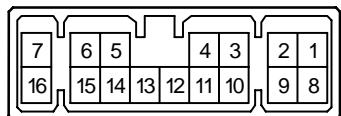
90980-10542



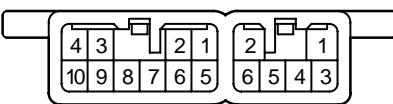
90980-10560

## TABLE OF HOUSING SHAPE

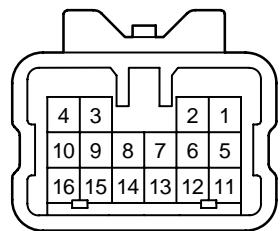
## &lt;MALE&gt; 16P Non-waterproof Type



90980-10744

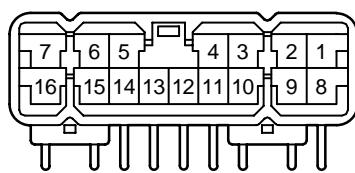


90980-10753

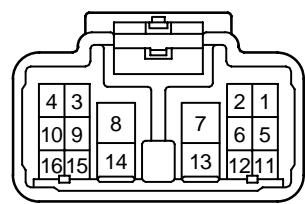


90980-10808

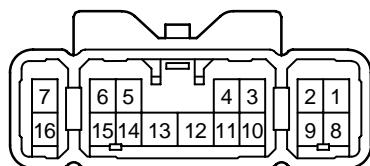
90980-11444



90980-10874



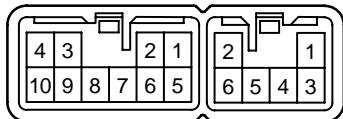
90980-10884



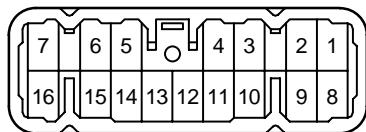
90980-11167

## TABLE OF HOUSING SHAPE

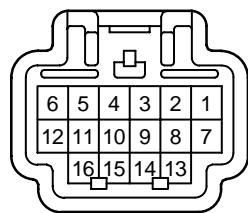
## &lt;MALE&gt; 16P Non-waterproof Type



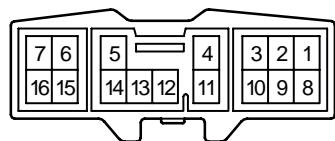
90980-11324



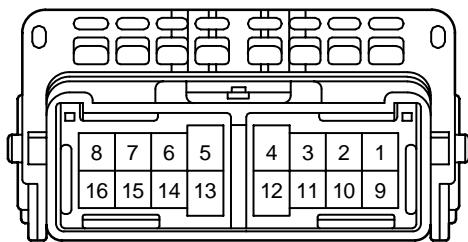
90980-11351



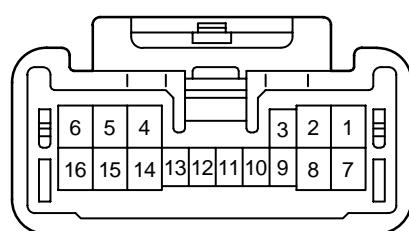
90980-11415



90980-11434



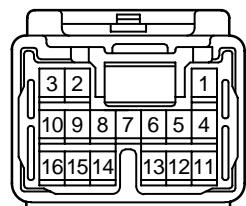
90980-11546



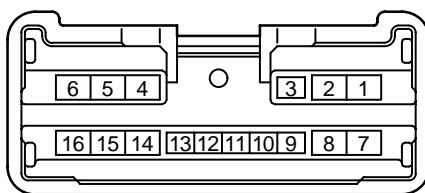
90980-11561

## TABLE OF HOUSING SHAPE

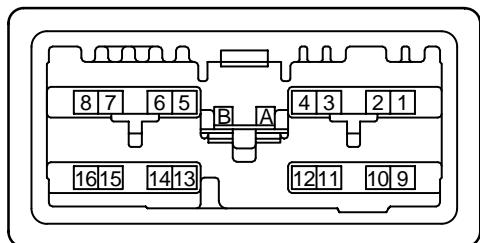
## &lt;MALE&gt; 16P Non-waterproof Type



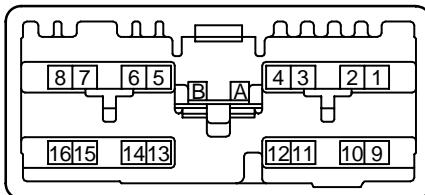
90980-11573



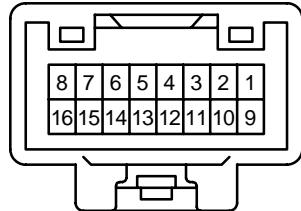
90980-11624



90980-11680



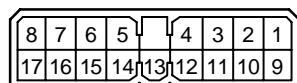
90980-11682



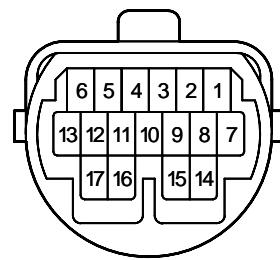
90980-12192

## TABLE OF HOUSING SHAPE

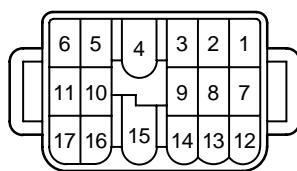
## &lt;MALE&gt; 17P Non-waterproof Type



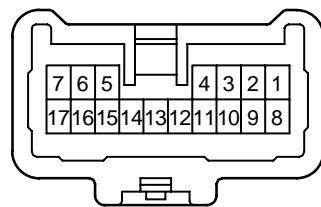
90980-10030



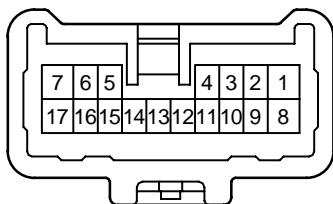
90980-10730



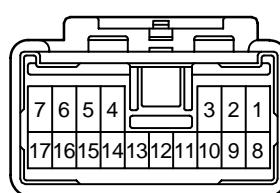
90980-11046



90980-11202

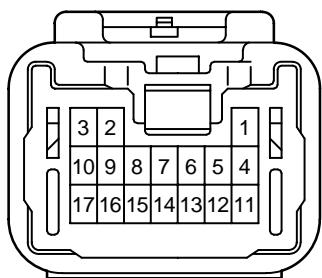


90980-11309

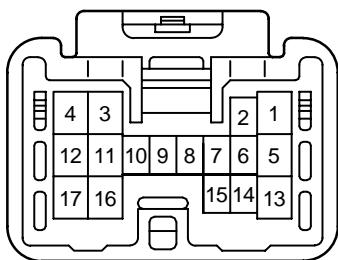


90980-11334

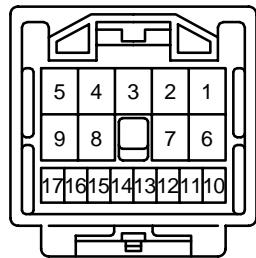
## TABLE OF HOUSING SHAPE

**<MALE> 17P Non-waterproof Type**

90980-11505



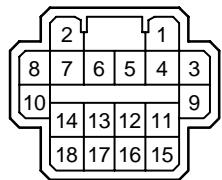
90980-11559



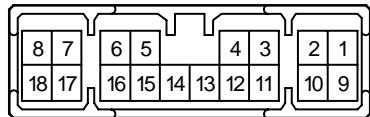
90980-12161

## TABLE OF HOUSING SHAPE

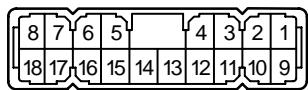
## &lt;MALE&gt; 18P Non-waterproof Type



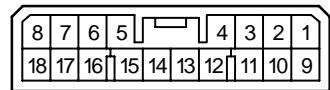
90980-10284



90980-10325

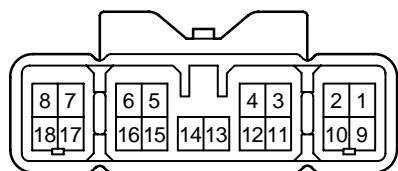


90980-10441

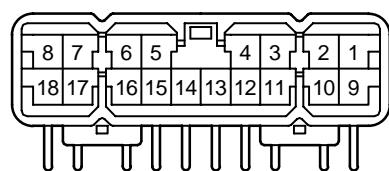


90980-10655

90980-11017



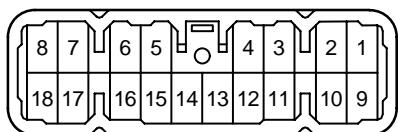
90980-10818



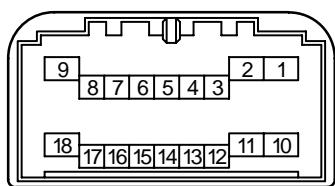
90980-10863

## TABLE OF HOUSING SHAPE

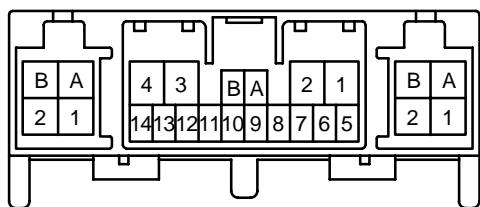
## &lt;MALE&gt; 18P Non-waterproof Type



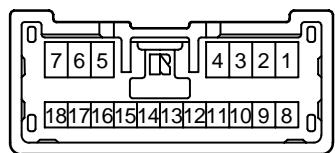
90980-10937  
90980-11127



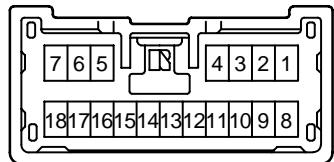
90980-11223



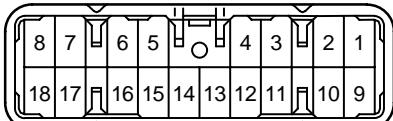
90980-11382



90980-11496



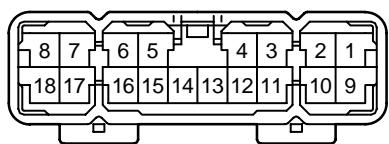
90980-11745



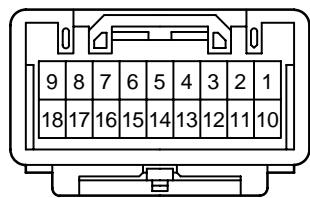
90980-11748

## TABLE OF HOUSING SHAPE

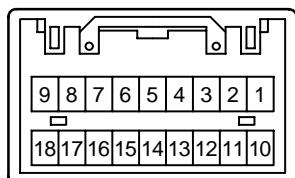
## &lt;MALE&gt; 18P Non-waterproof Type



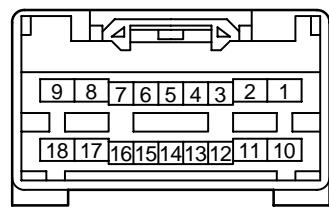
90980-11751



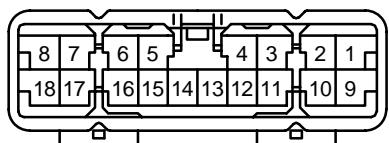
90980-11912



90980-11949



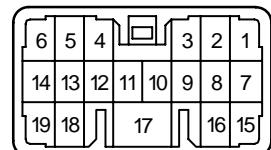
90980-12010



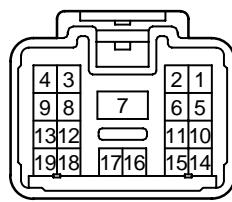
90980-12108

## TABLE OF HOUSING SHAPE

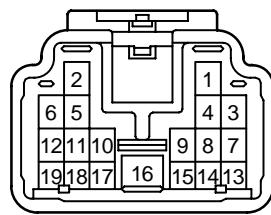
## &lt;MALE&gt; 19P Non-waterproof Type



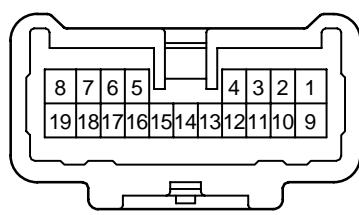
90980-10674



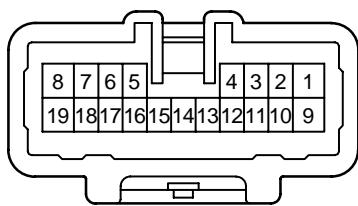
90980-10856



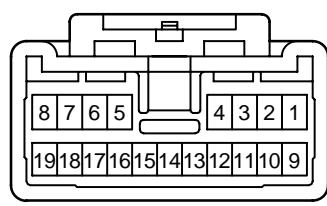
90980-10882



90980-11204

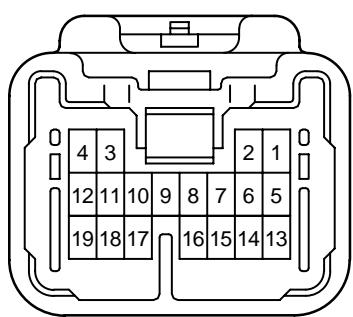


90980-11307



90980-11376

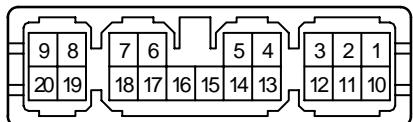
## TABLE OF HOUSING SHAPE

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

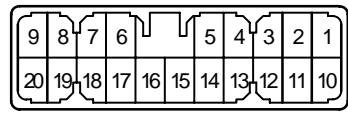
90980-11570

## TABLE OF HOUSING SHAPE

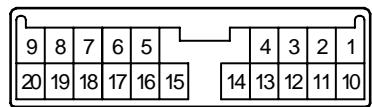
## &lt;MALE&gt; 20P Non-waterproof Type



90980-10361

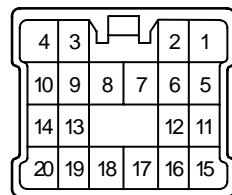


90980-10508

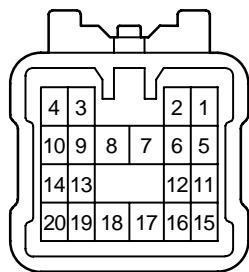


90980-10588

90980-10681

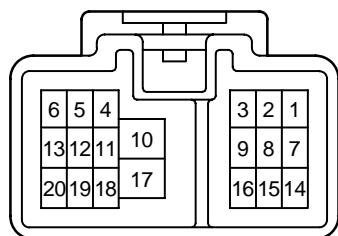


90980-10639



90980-10810

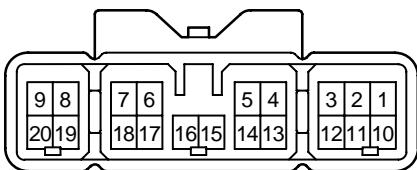
90980-11440



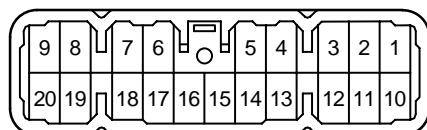
90980-10816

## TABLE OF HOUSING SHAPE

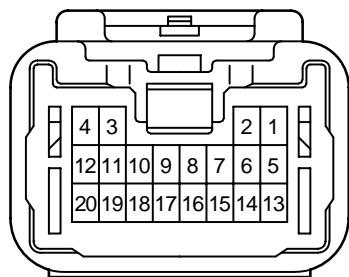
## &lt;MALE&gt; 20P Non-waterproof Type



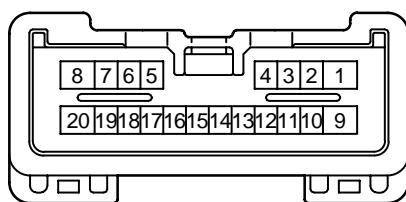
90980-10820  
90980-11442



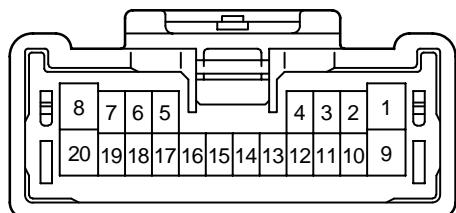
90980-10936  
90980-11104  
90980-11117



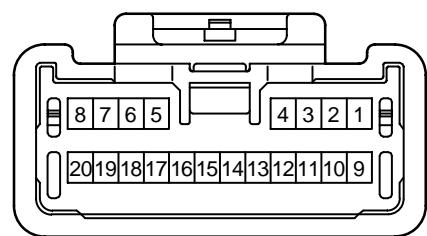
90980-11498



90980-11501



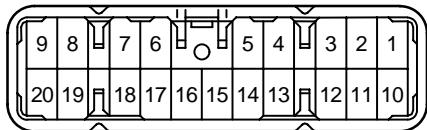
90980-11504



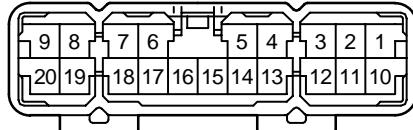
90980-11627

## TABLE OF HOUSING SHAPE

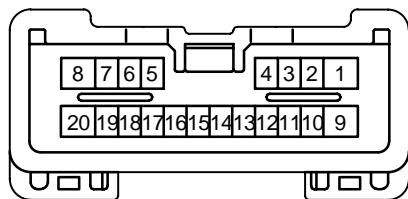
## &lt;MALE&gt; 20P Non-waterproof Type



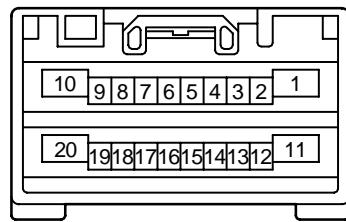
90980-11749



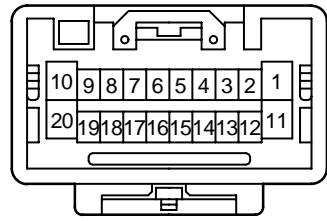
90980-11750



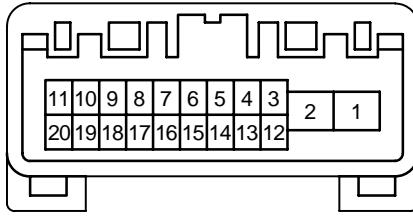
90980-11905



90980-11970



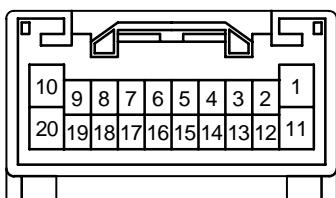
90980-12025



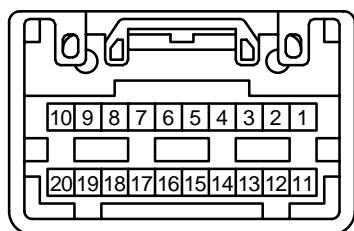
90980-12033

## TABLE OF HOUSING SHAPE

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



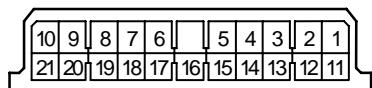
90980-12037



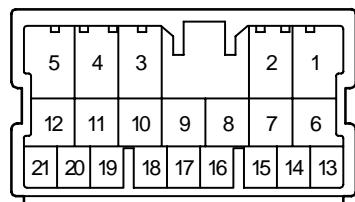
90980-12087

## TABLE OF HOUSING SHAPE

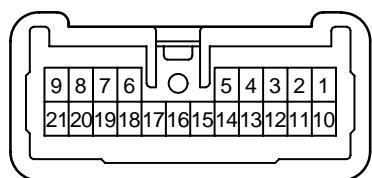
## &lt;MALE&gt; 21P Non-waterproof Type



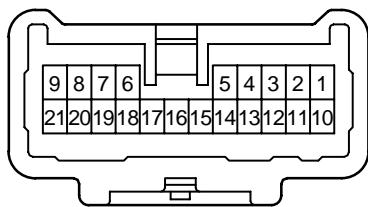
90980-10063



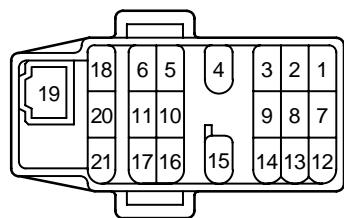
90980-10472



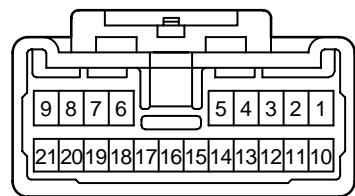
90980-11119



90980-11206



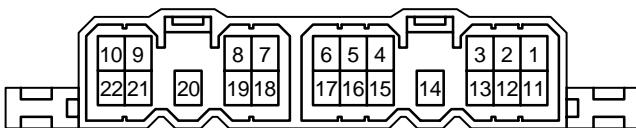
90980-11316



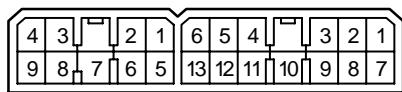
90980-11378

## TABLE OF HOUSING SHAPE

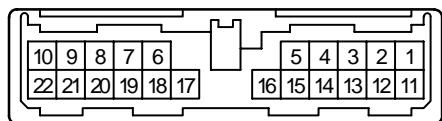
## &lt;MALE&gt; 22P Non-waterproof Type



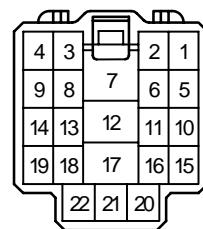
90980-10131



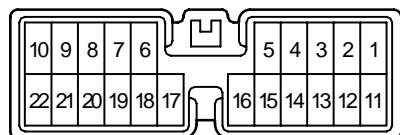
90980-10151



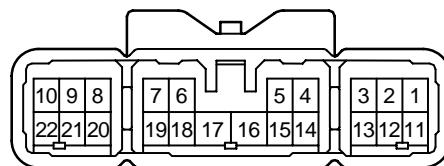
90980-10455



90980-10457



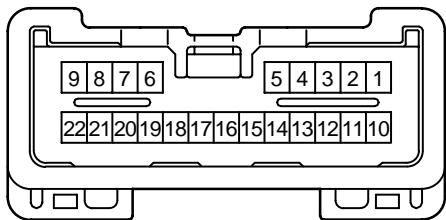
90980-10552



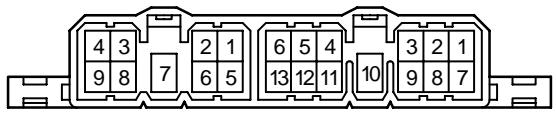
90980-10977

## TABLE OF HOUSING SHAPE

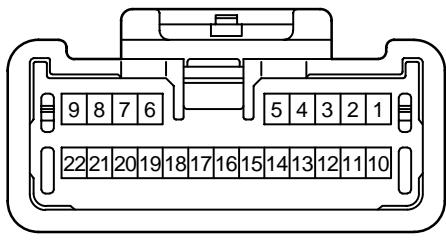
## &lt;MALE&gt; 22P Non-waterproof Type



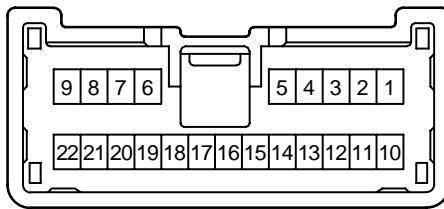
90980-11468



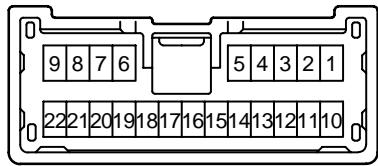
90980-11477



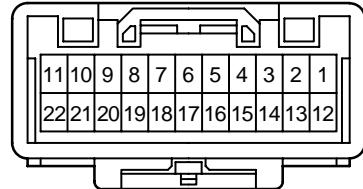
90980-11503



90980-11621



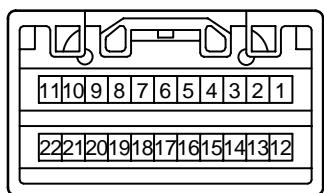
90980-11746



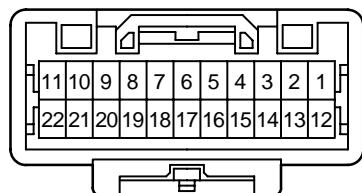
90980-11926

## TABLE OF HOUSING SHAPE

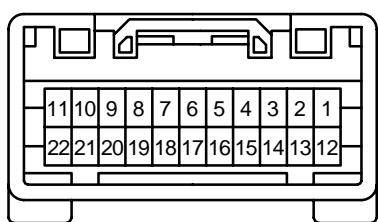
## &lt;MALE&gt; 22P Non-waterproof Type



90980-11966



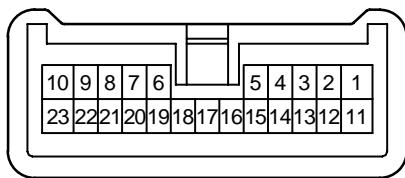
90980-12024



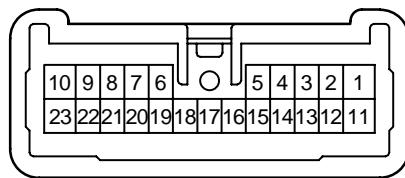
90980-12030

## TABLE OF HOUSING SHAPE

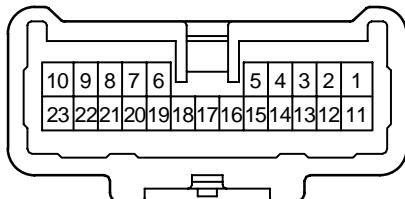
## &lt;MALE&gt; 23P Non-waterproof Type



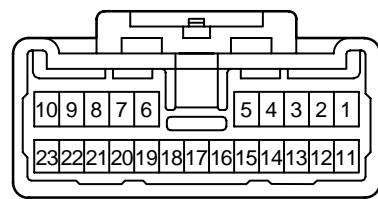
90980-10920



90980-11120



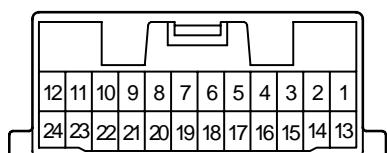
90980-11208



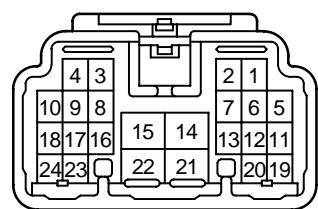
90980-11380

## TABLE OF HOUSING SHAPE

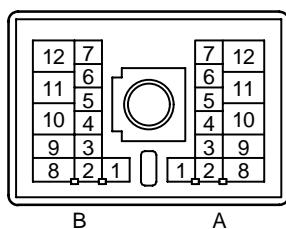
## &lt;MALE&gt; 24P Non-waterproof Type



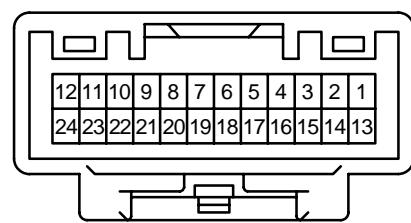
90980-10429



90980-10880



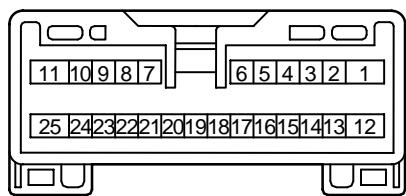
90980-10954



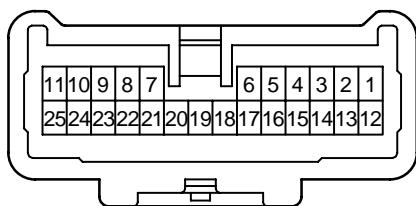
90980-12193

## TABLE OF HOUSING SHAPE

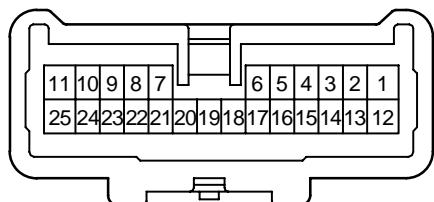
## &lt;MALE&gt; 25P Non-waterproof Type



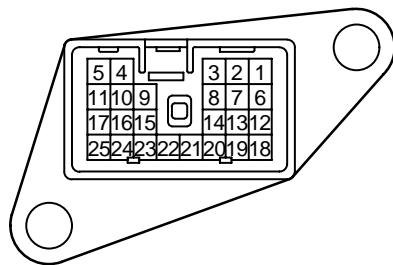
90980-11057



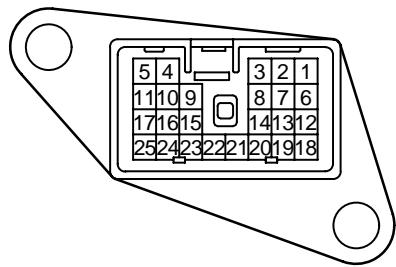
90980-11133



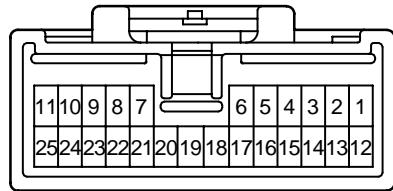
90980-11158



90980-11373



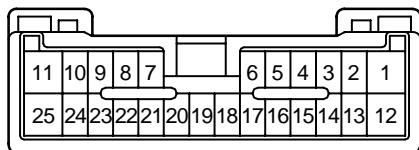
90980-11374



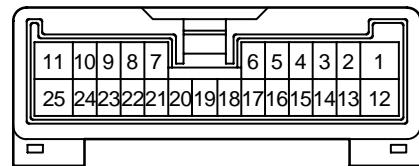
90980-11403

## TABLE OF HOUSING SHAPE

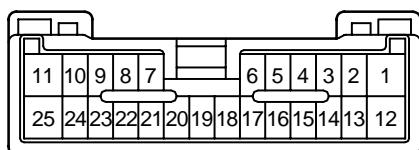
## &lt;MALE&gt; 25P Non-waterproof Type



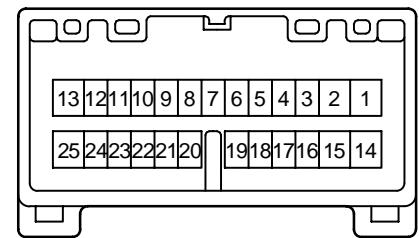
90980-11411



90980-11473

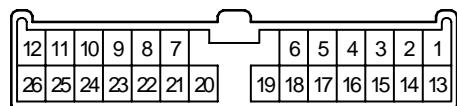


90980-11483



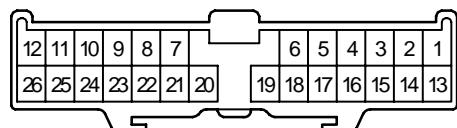
90980-11876

## TABLE OF HOUSING SHAPE

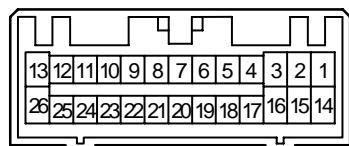
**<MALE> 26P Non-waterproof Type**

90980-10586

90980-10599



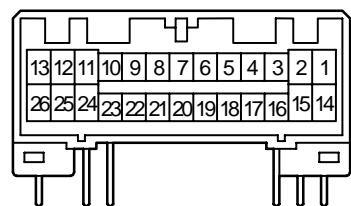
90980-10750



90980-10917

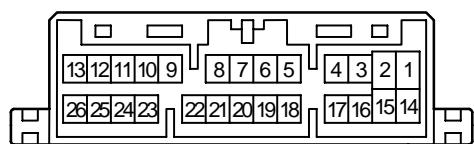
90980-11103

## TABLE OF HOUSING SHAPE

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

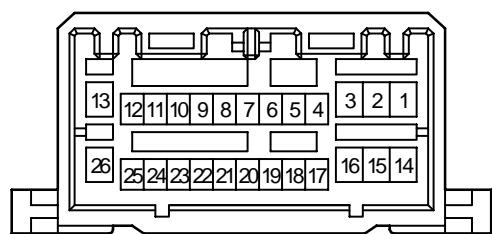
90980-10924

90980-10978



90980-11233

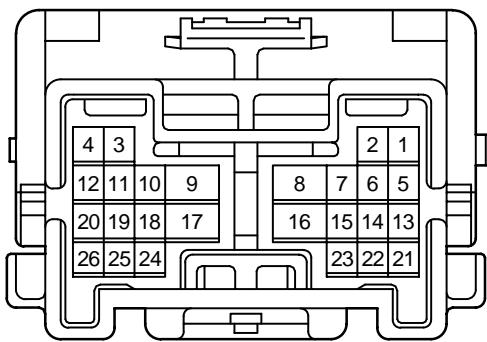
90980-11333



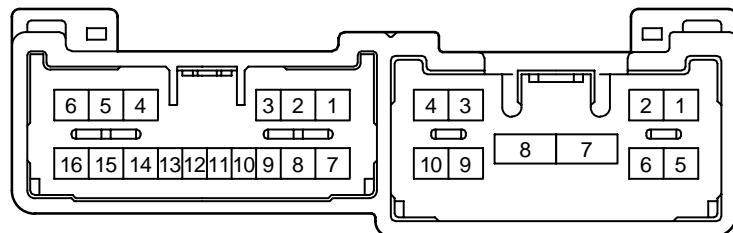
90980-11548

90980-11899

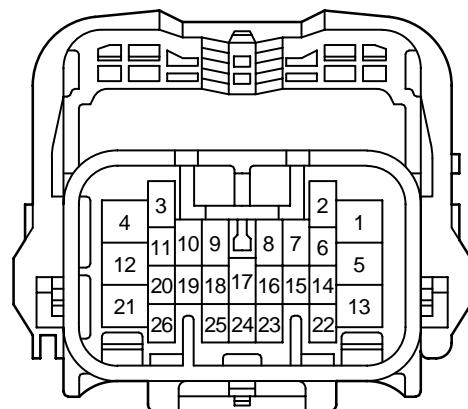
## TABLE OF HOUSING SHAPE

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

90980-11610



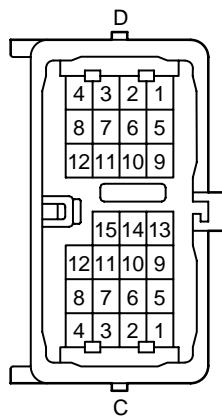
90980-11625



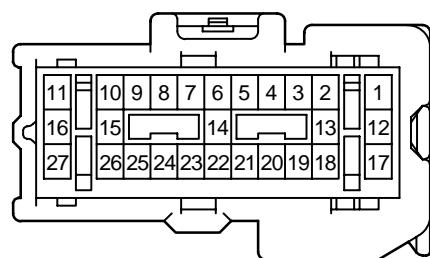
90980-11631

## TABLE OF HOUSING SHAPE

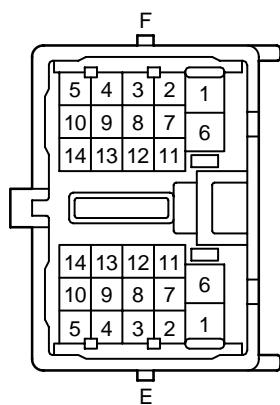
## &lt;MALE&gt; 27P, 28P Non-waterproof Type



90980-11357

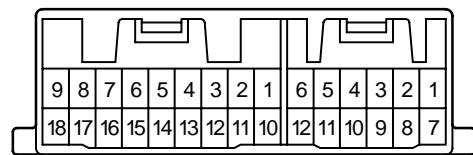


90980-11669



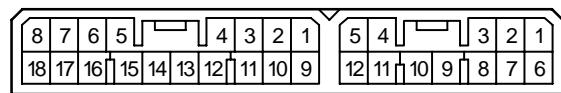
90980-11356

## TABLE OF HOUSING SHAPE

**<MALE> 30P Non-waterproof Type**

90980-10349

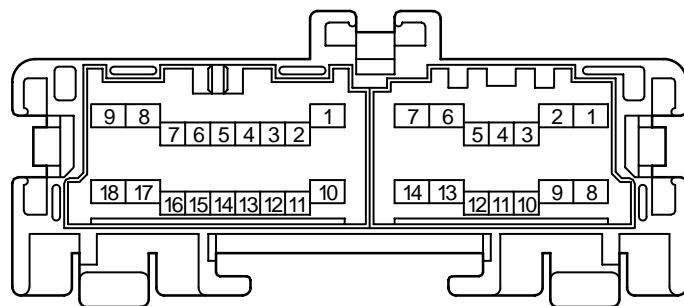
90980-10726



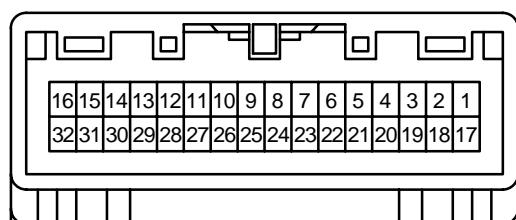
90980-10657

## TABLE OF HOUSING SHAPE

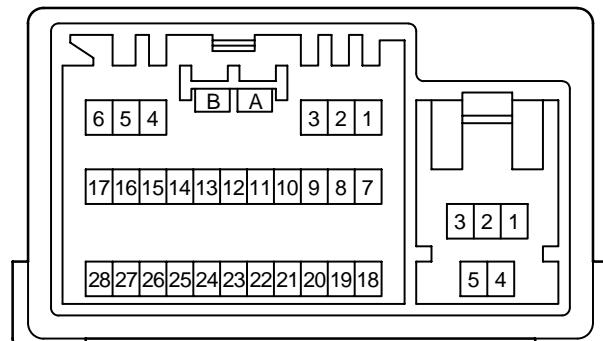
## &lt;MALE&gt; 32P, 33P Non-waterproof Type



90980-11222

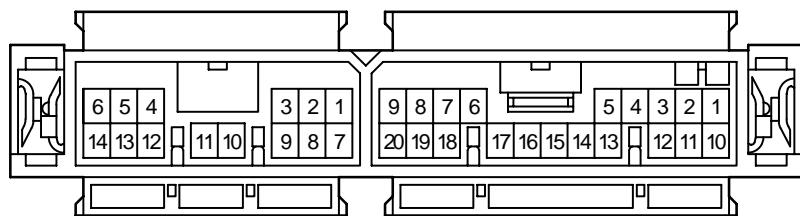


90980-12152



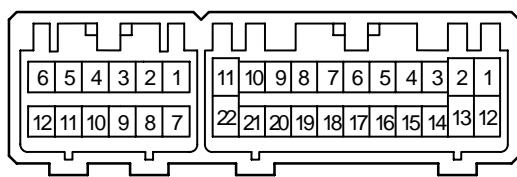
90980-11961

## TABLE OF HOUSING SHAPE

**<MALE> 34P Non-waterproof Type**

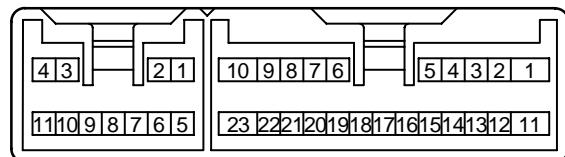
90980-10606

90980-10722



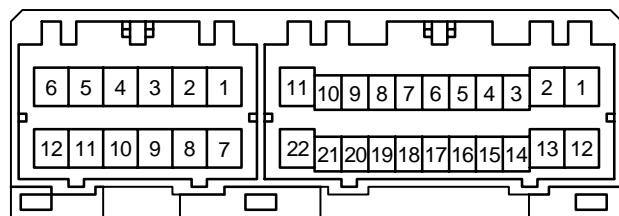
90980-10991

90980-11059

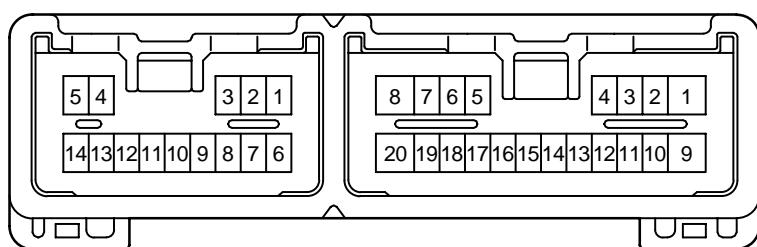


90980-11084

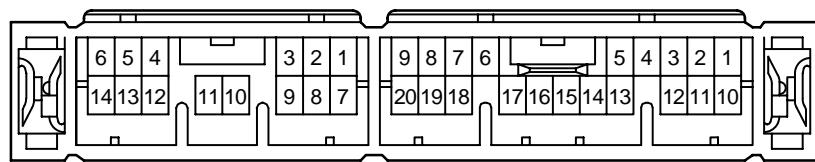
## TABLE OF HOUSING SHAPE

**<MALE> 34P Non-waterproof Type**

90980-11228

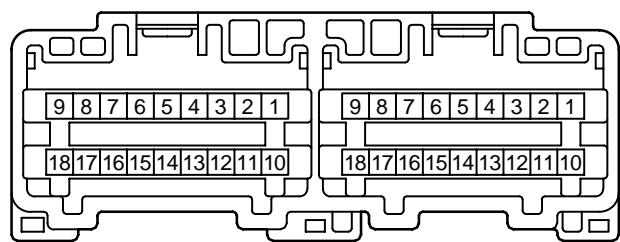


90980-11472



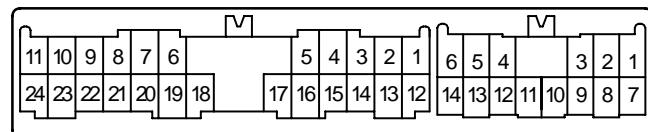
90980-11549

## TABLE OF HOUSING SHAPE

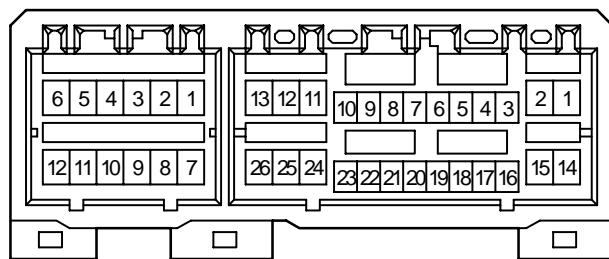
**<MALE> 36P Non-waterproof Type**

90980-11647

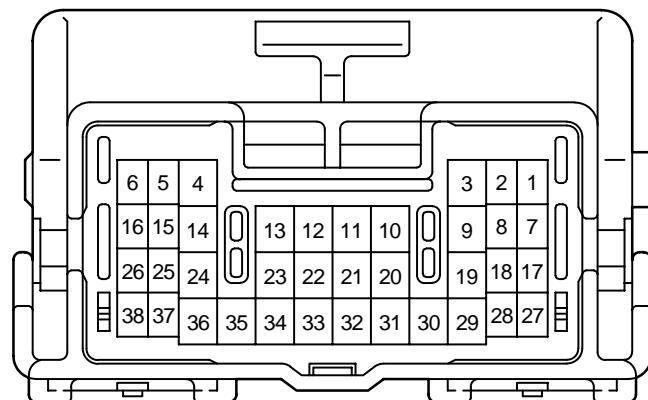
## TABLE OF HOUSING SHAPE

**<MALE> 38P Non-waterproof Type**

90980-10584

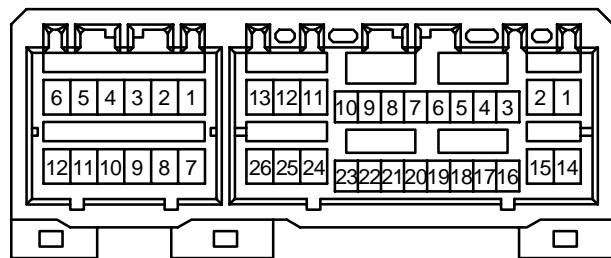


90980-11418

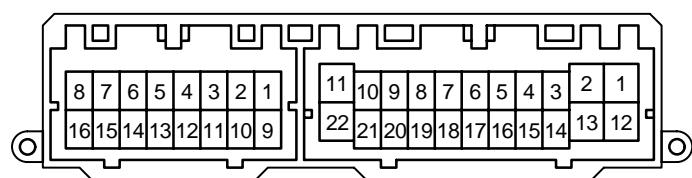


90980-11554

## TABLE OF HOUSING SHAPE

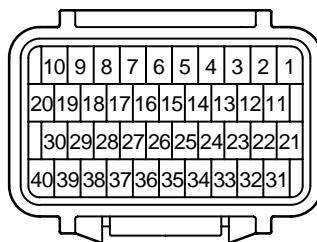
**<MALE> 38P Non-waterproof Type**

90980-11733



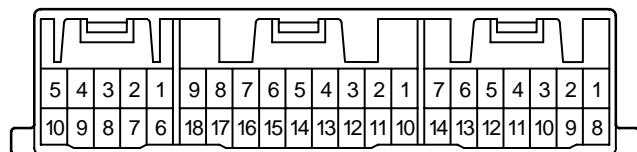
90980-11902

## TABLE OF HOUSING SHAPE

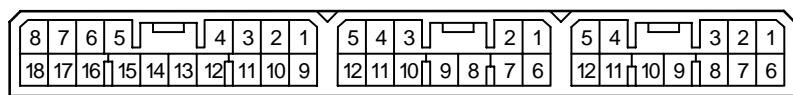
**<MALE> 40P Non-waterproof Type**

90980-11342

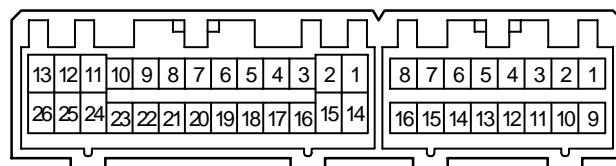
## TABLE OF HOUSING SHAPE

**<MALE> 42P Non-waterproof Type**

90980-10370



90980-10742



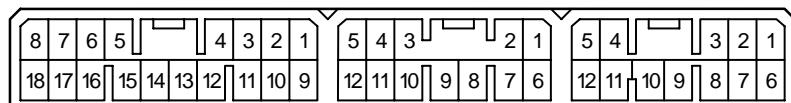
90980-10969

90980-11266

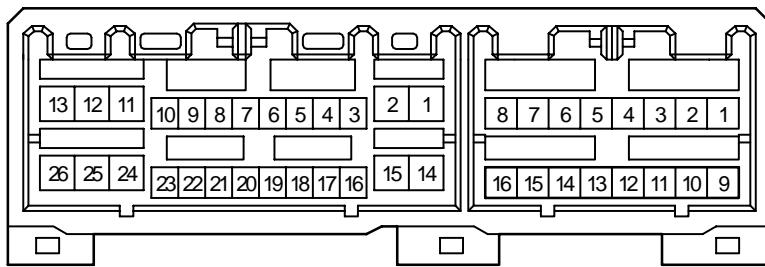
90980-11563

## TABLE OF HOUSING SHAPE

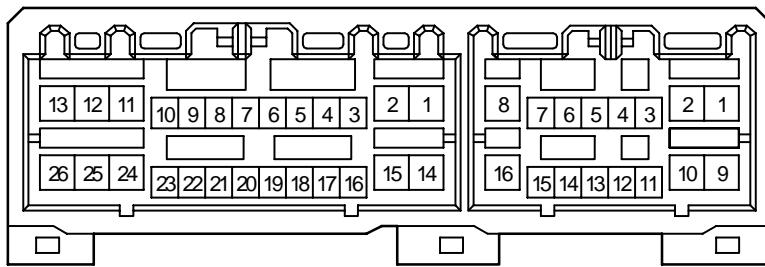
## **<MALE> 42P Non-waterproof Type**



90980-11018

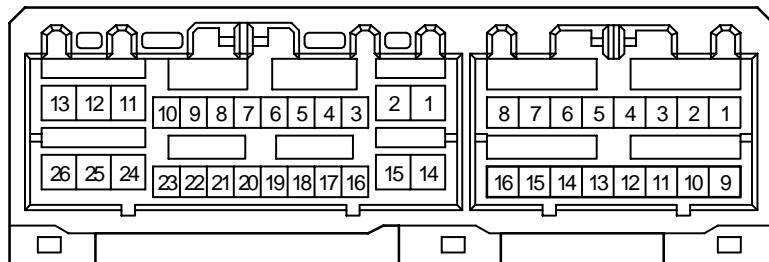


90980-11081



90980-11564

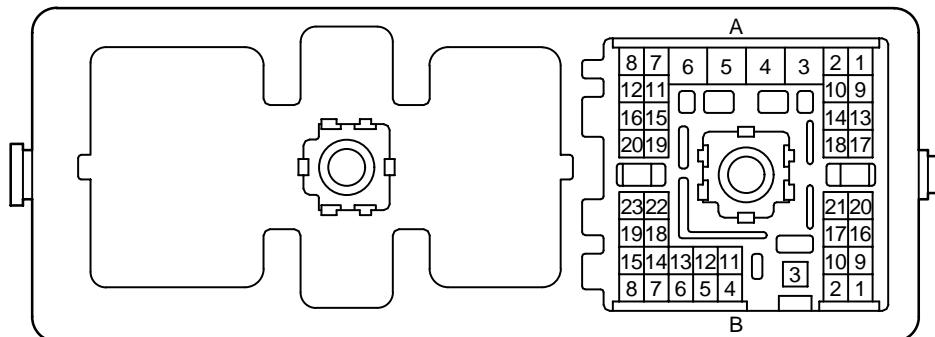
## TABLE OF HOUSING SHAPE

**<MALE> 42P Non-waterproof Type**

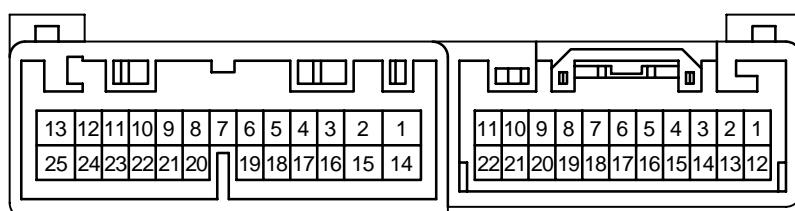
90980-11597

## TABLE OF HOUSING SHAPE

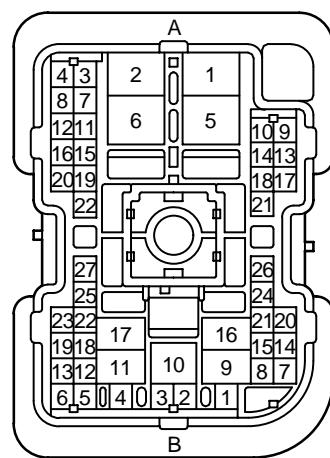
## &lt;MALE&gt; 43P, 47P, 49P Non-waterproof Type



90980-11355

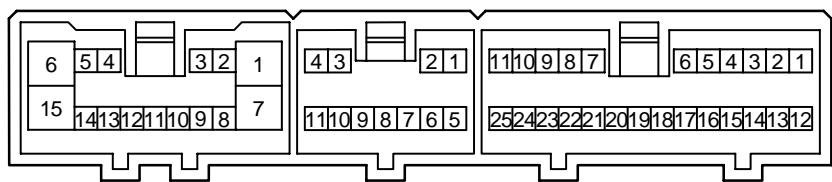


90980-12035



90980-11430

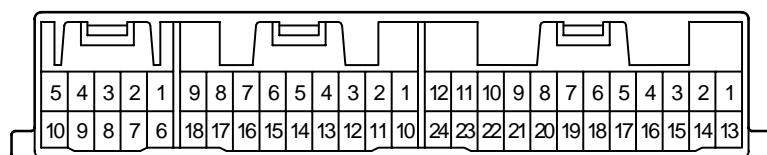
## TABLE OF HOUSING SHAPE

**<MALE> 51P Non-waterproof Type**

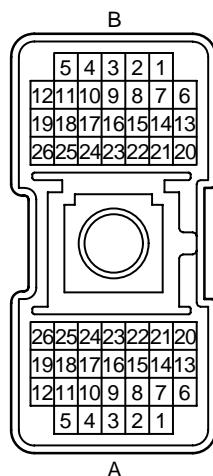
90980-11040

## TABLE OF HOUSING SHAPE

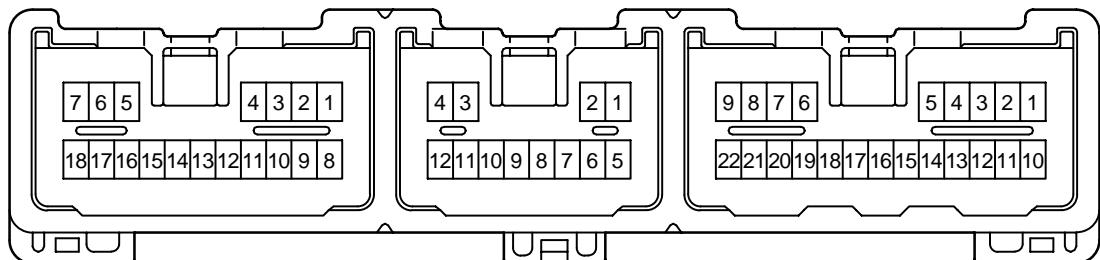
## &lt;MALE&gt; 52P Non-waterproof Type



90980-10293

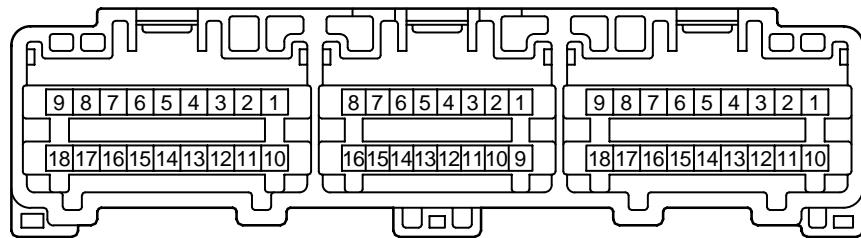


90980-10951



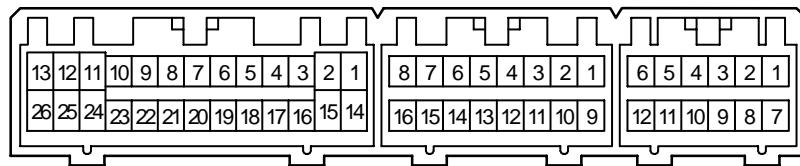
90980-11572

## TABLE OF HOUSING SHAPE

**<MALE> 52P Non-waterproof Type**

90980-11646

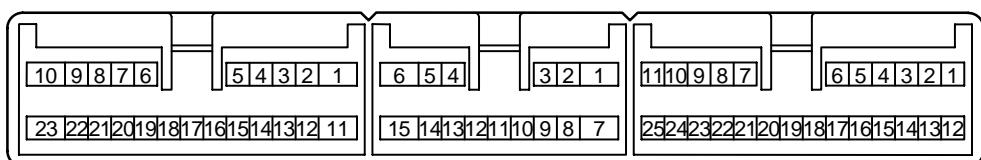
## TABLE OF HOUSING SHAPE

**<MALE> 54P, 63P Non-waterproof Type**

90980-10972

90980-11405

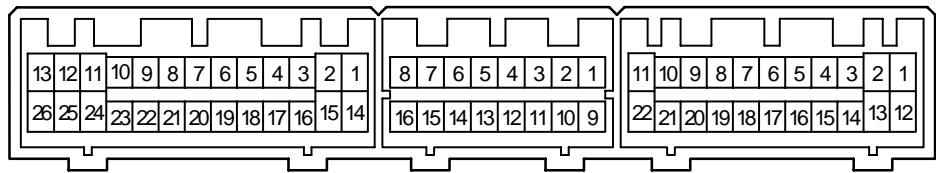
90980-11575



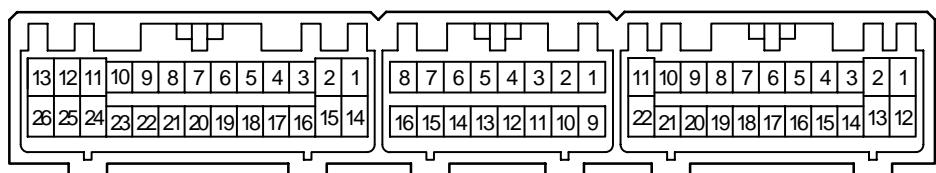
90980-11054

## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 64P Non-waterproof Type



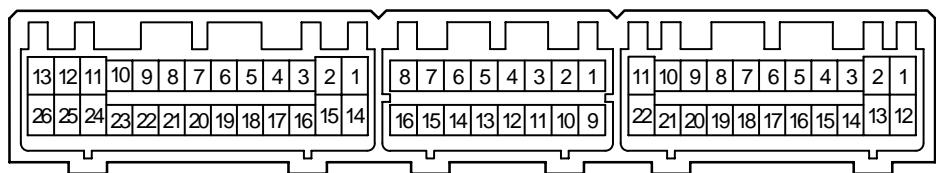
90980-10738



90980-10761

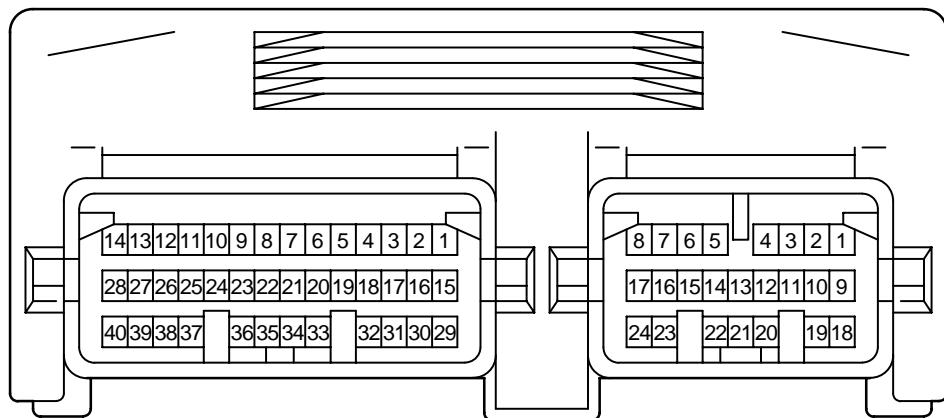
90980-10780

90980-11576



90980-10773

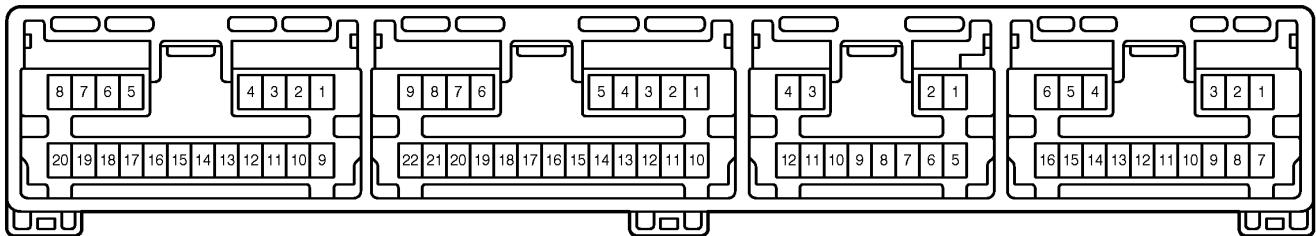
## TABLE OF HOUSING SHAPE

**<MALE> 64P Non-waterproof Type**

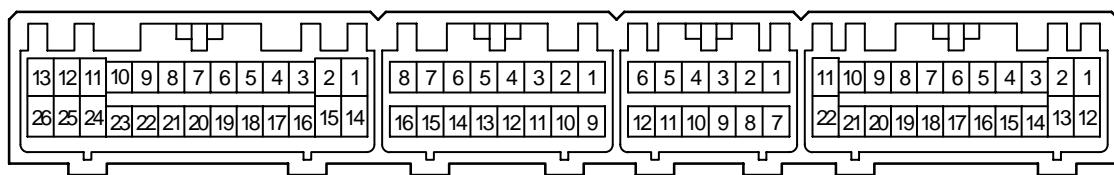
90980-11507

## TABLE OF HOUSING SHAPE

## &lt;MALE&gt; 70P, 76P Non-waterproof Type

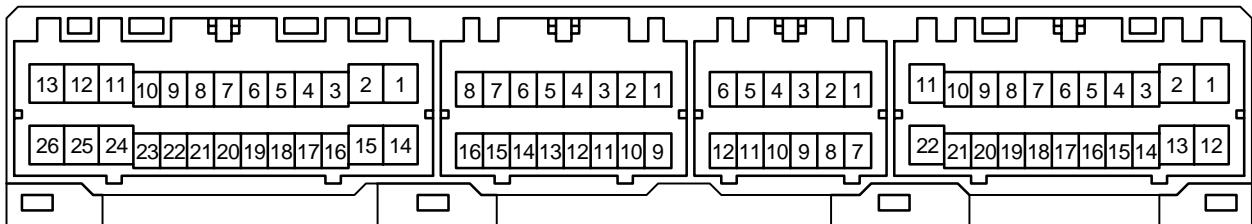


90980-11645



90980-11128

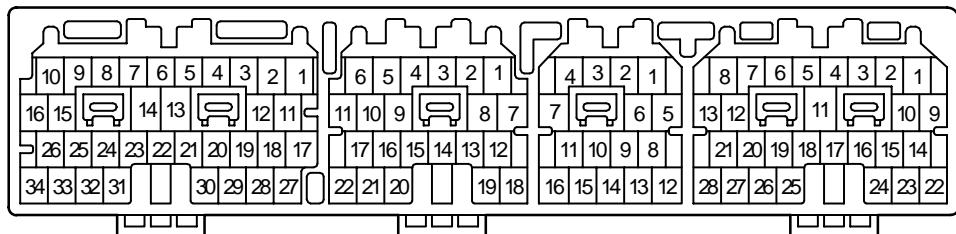
90980-11352



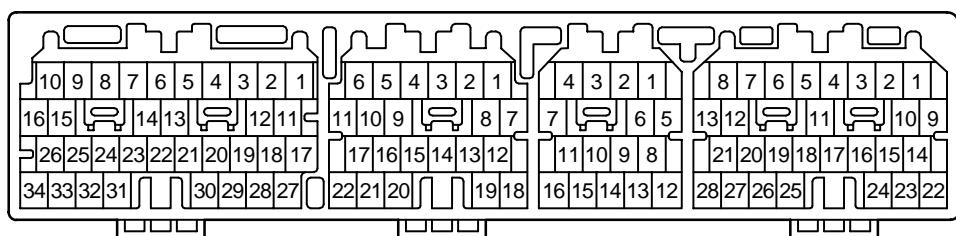
90980-11577

## TABLE OF HOUSING SHAPE

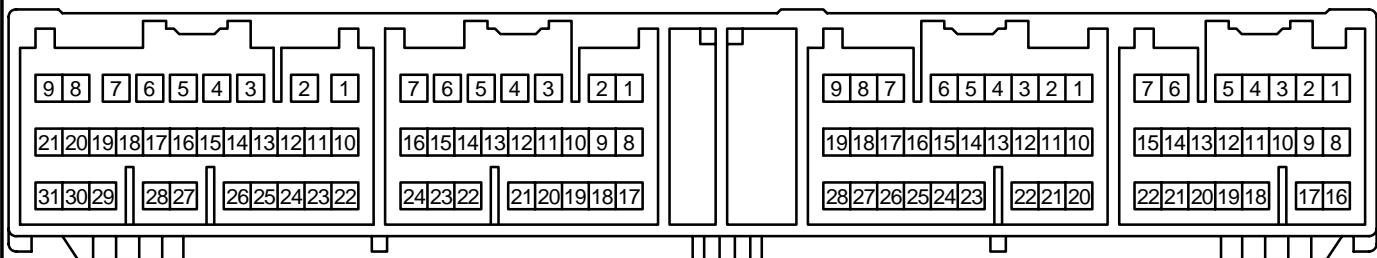
## &lt;MALE&gt; 100P, 105P Non-waterproof Type



90980-11217



90980-11578



90980-11364

**memo**

---

# HOUSING PART NUMBER LIST

## HINT:

- The housing, which have more than two or more types mentioned at the terminal items, is hybrid type housing.
- The availability of the supply parts is effective as of the end of October, 2002.

## NOTES:

The following marks are used in the table.

O	Supply parts are available
X	Supply parts are not available
M	Male
F	Female
S	Sealed (Waterproof Type)
U	Unsealed (Non-waterproof Type)
*	Gold-plated repair wire is available
Y	Yellow
L	Blue
R	Red
PCB	Printed Circuit Board
IDC	Insulation Displacement Connector

E



## 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

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

## 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-		
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 7.7	M	6 6	U	- 12010	-	- Y	
10028	X	TODC	F	16	U	12090	-	L,Y	
10029	X	6.3 7.7	F	6 6	U	- 12020	-	- Y	
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	
10065	X	TODC	M	15	U	12080	-	L,Y	
10066	X	TODC	F	15	U	12090	-	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– 10068	X	TODC	M	9	U	82998– –	82998– –	–	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
10131	X	LAC	M	22	U	12100	–	L,Y	
10132	O	LAC	F	13	U	12110	–	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–		
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 7.7	M	3 3	U	– 12010	–	– Y	
10146	X	6.3 7.7	F	2 1	U	– 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 7.7	M	3 3	U	– –	–	–	
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	
10176	O	6.3	M	10	U	12050	–	Y	
10177	O	6.3	F	10	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– 10178	O	6.3	M	1	U	82998– 12050	82998– –	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 7.7	M	2 1	U	12050 12030	– –	Y Y	
10187	X	6.3 7.7	M	2 1	U	12050 12030	– –	Y Y	
10188	X	6.3 7.7	M	2 1	U	12050 12030	– –	Y Y	
10189	X	6.3 7.7	F	2 1	U	12060 12040	12580 –	Y 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 7.7	M	2 1	S	– –	– –	– –	
10199	X	6.3 7.7	F	2 1	S	– –	– –	– –	
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 TODC	M	8 8	U	– 12080	– –	– L,Y	w/ Flange
10209	X	6.3 TODC	F	2 6	U	12060 12090	12580 –	Y 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– 10210	X	6.3 TODC	M	2 6	U	82998– 12050 12080	82998– – –	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	–	–	–	
10245	X	TODC	F	3	S	–	–	–	
10246	O	6.3	M	1	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		
90980–10247	O	6.3	F	1	S	82998–	82998–	–	
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 7	U	12050 12080	– –	Y L,Y	
10282	X	6.3	F	3 7	U	12060 12090	12580 –	Y 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	
10286	X	TODC	M	2	U	12080	–	L,Y	
10287	X	TODC	M	16	S	–	–	–	

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		
90980–10288	X	TODC	F	16	S	82998–	82998–	–	
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	U	12050	–	Y	
10307	X	6.3 TODC	F	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	
10318	X	6.3 TODC	F	1 8	U	12060 12090	12580	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– 10319	X	6.3 TODC	F	1 10	U	82998– 12060 12090	82998– 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	
10349	X	PULSE LOCK	M	30	U	–	–	–	PCB
10350	X	PULSE LOCK	F	18	U	12200	–	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–		
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
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

## 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		
90980–10384	O	2.3	M	6	U	82998–12160*	82998–	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
10417	X	2.3	M	10	U	–	–	–	PCB
10418	X	2.3 TODC	M	6 2	U	12160* 12080	– –	L 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– 10419	X	2.3 TODC	F	6 2	U	82998– 12170 12090	82998– – –	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	
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	

## 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– 10450	X	6.3 II	F	11	U	82998– 24170	82998– –	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	
10477	X	2.3	M	6	S	12260*	–	L	
10478	X	2.3	F	6	S	12270*	12600	L	
10479	X	2.3 6.3	M	12 1	U	12160* 12050	– –	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– 10480	X	2.3 6.3	F	12 1	U	82998– 12170 12060	82998– – 12580	L 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 TODC	M	10 6	U	12160* 12080	– –	L L,Y	
10486	X	2.3 TODC	F	10 6	U	12170 12090	– –	L 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	
10512	X	TNS	F	2	U	12250	–	L	
10513	O	2.3	M	12	U	12160*	–	L	
10514	X	2.3 6.3	F	2 2	U	12170 12060	– 12580	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– 10515	X	2.3	F	4	U	82998– 12170	82998– –	L	
10516	X	2.3	M	10	U	–	–	–	PCB
10517	X	2.3 6.3 7.7	F	4 2 2	U	12170 12060 12040	– 12580 –	L Y Y	
10518	X	2.3 6.3	M	4 1	U	12160* 12050	– –	L Y	
10519	X	2.3 6.3	M	4 1	U	12160* 12050	– –	L Y	
10520	X	2.3 6.3	F	4 1	U	12170 12060	– 12580	L Y	
10521	X	2.3 7.7	M	15 1	U	12160* 12030	– –	L Y	
10522	X	2.3 7.7	F	15 1	U	12170 12040	– –	L 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 6.3	F	17 1	U	12170 12060	– 12580	L 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 6.3	F	8 1	U	12170 12060	– 12580	L Y	
10537	X	2.3 6.3	F	10 1	U	12170 12060	– 12580	L Y	
10538	X	2.3	F	14	U	12170	–	L	
10539	X	2.3	F	16	U	12170	–	L	
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	

## 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– 10545	X	2.3 6.3	M	12 2	U	82998– 12160* 12050	82998– – –	L Y	
10546	X	TLC	M	8	U	12220	–	L	
10547	X	2.3 6.3 7.7	M	12 2 2	S	12260*	– – –	L – –	
10548	X	2.3	F	12	S	12270*	12600	L	
10549	X	6.3 7.7	F	2 2	S	– –	– –	– –	
10550	X	2.3 6.3	F	3 2	S	12270*	12600	L –	
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 6.3 7.7	M	12 2 1	U	12160* 12050 12030	– – –	L Y Y	
10563	X	2.3 6.3 7.7	F	12 2 1	U	12170 12060 12040	– 12580 –	L Y 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	
10572	O	2.3	F	2	S	12270*	12600	L	
10573	O	2.3	M	3	U	12160*	–	L	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–		
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	
10610	X	2.3 TNS	F	1 4	U	12170 12250	– –	L 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– 10611	X	2.3 TNS	F 8 8	8	U	82998– 12170 12250	82998– – –	L L	
10612	X	2.3 TNS	F 10 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	2	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	
10645	O	MFPC	F	4	U	12150	–	L	
10646	X	6.3	M	4	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– 10647	X	6.3	M	5	S	82998– –	82998– –	–	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 7.7	F	4 2	U	12060 12040	12580 –	Y Y	
10674	X	2.3 6.3	M	18 1	U	12160* 12050	– –	L Y	
10675	X	2.3 6.3	F	18 1	U	12170 12060	12580	L 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
10681	X	TNS	M	20	U	–	–	–	PCB
10682	X	TNS	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–		
10683	X	TNS	F	3	S	–	–	–	
10684	X	TNS	F	3	S	–	–	–	
10685	X	2.3 6.3	F	2 2	S	12270* 12540	12600 –	L Y	
10686	O	2.3 6.3	F	7 2	S	12270* 12540	12600 –	L 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 TLC	M	2 3	S	12260* 12280	– –	L R	
10710	X	2.3 TLC	F	2 3	S	12270* 12290	12600 –	L R	
10711	O	1.8	F	4	S	12620	–	L	
10712	X	2.3	F	5	S	12270*	12600	L	
10713	X	6.3 7.7	F	3 2	U	12060 12040	12580 –	Y Y	
10714	X	2.3 6.3	F	9 3	U	12170 12060	– 12580	L Y	
10715	X	2.3	M	14	U	12160*	–	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–		
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
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	

## 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– 10749	O	4.8 2.3 II	M	2 2	S	82998– 12470 12430*	82998– – –	Y 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 7.7	F	2 2	U	12060 12040	12580 –	Y Y	
10760	X	5.2 6.3	F	1 1	U	– 12060	12580	– Y	
10761	X	1.8 1.0	M	16 48	U	– –	–	–	PCB
10762	X	2.3	M	5	U	12160*	–	L	
10763	O	1.8 1.0	F	10 16	U	12190* 12310*	–	L L	
10764	O	1.0	F	16	U	12310*	–	L	
10765	O	1.8 1.0	F	6 16	U	12190* 12310*	–	L L	
10766	X	6.3 7.7	F	4 2	U	12060 12040	12580 –	Y 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 6.3	M	5 2	U	– –	–	–	PCB
10772	X	2.3 6.3	F	5 2	U	12170 12060	– 12580	L Y	
10773	X	1.8 1.0	M	16 48	U	– –	–	–	PCB
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
10778	X	2.3 2.3 6.3	F	2 15 1	S U	12270* 12170 12060	12600 – 12580	L 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		
90980–10779	X	TNS	M	24	U	82998–12240	82998–	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	
10812	O	4.8 2.3 II	M	2 12	U	12370 12330*	– –	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– 10813	O	4.8 2.3 II	F	2 12	U	82998– 12380 12340*	82998– – –	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	
10845	O	2.3 II	F	3	S	12440*	12590	L,Y	
10846	X	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		
90980–10847	X	2.3	F	2	S	82998–12270*	82998–12600	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 8.0	M	18 1	U	12330* 12390	– –	L,Y Y	
10857	O	2.3 II 8.0	F	18 1	U	12340* 12400	– –	L,Y 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 2.3 II	M	7 4	U	12370 12330*	– –	Y L,Y	
10873	O	4.8 2.3 II	F	7 4	U	12380 12340*	– –	Y 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 2.3 II	M	3 5	U	12370 12330*	– –	Y L,Y	
10877	O	4.8 2.3 II	F	3 5	U	12380 12340*	– –	Y L,Y	
10878	O	4.8 2.3 II	M	2 10	U	12370 12330*	– –	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– 10879	O	4.8 2.3 II	F	2 10	U	82998– 12380 12340*	82998– – –	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	
10905	O	2.3 II	M	2	U	12330*	–	L,Y	
10906	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– 10907	O	2.3 II	M	3	U	82998– 12330*	82998– –	L,Y	
10908	O	2.3 II	F	3	U	12340*	–	L,Y	
10909	O	2.3 II 8.0	M	4 2	U	12330* 12390	– –	L,Y Y	
10910	O	2.3 II 8.0	F	4 2	U	12340* 12400	– –	L,Y 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 1.0	M	8 18	U	– –	– –	–	PCB
10918	X	1.8 1.0	F	8 18	U	12190* 12310*	– –	L L	
10919	O	2.3 II	F	3	S	12440*	12590	L,Y	
10920	O	1.3 2.3 II	M	19 4	U	12410 12330*	– –	L L,Y	
10921	O	1.3 2.3 II	F	19 4	U	12420 12340*	– –	L L,Y	
10923	O	2.3 II	F	2	S	12440*	12590	L,Y	
10924	X	1.8 1.0	M	16 10	U	– –	– –	–	PCB
10925	O	1.8 1.0	F	10 16	U	12190* 12310*	– –	L 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 2.3 II	F	2 10	U	12380 12340*	– –	Y 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	
10936	X	2.3 II	M	20	U	–	–	–	PCB
10937	X	2.3 II	M	18	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– 10938	X	2.3 II	M	12	U	82998– –	82998– –	–	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	
10966	O	2.3 II	F	11	U	12340*	–	L,Y	
10967	O	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		
90980–10968	O	2.3 II	F	12	U	82998–12340*	82998–	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	
10997	O	2.3 II	F	10	U	12340*	–	L,Y	
10998	O	2.3 II	M	6	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–		
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 2.3 II	M	2 3	S	12470 12430*	– –	Y L,Y	
11022	O	4.8 2.3 II	F	2 3	S	12480 12440*	– 12590	Y 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	
11036	O	4.8	F	4	S	12480	–	Y	
11037	O	2.3 II	F	4	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		
90980–11038	O	2.3 II	F	2	S	82998–12440*	82998–12590	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
11067	X	2.3 II	M	6	U	–	–	–	PCB
11068	O	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–		
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	
11103	X	1.8 1.0	M	8 18	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–		
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	
11137	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– 11138	O	4.8 8.0	M	2 2	S	82998– 12470 12490	82998– – –	Y Y	
11139	O	4.8 8.0	F	2 2	S	12480 12500	– –	Y 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 2.3 II	M	21 4	U	12410 12330*	– –	L L,Y	
11159	O	2.3 II	M	2	U	12330*	–	L,Y	
11160	O	4.8 2.3 II	M	1 2	S	12470 12430*	– –	Y L,Y	
11161	O	4.8 2.3 II	F	1 2	S	12480 12440*	12590	Y 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	
11171	O	1.3	M	7	S	12630	–	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		
90980–11172	O	1.3	F	7	S	82998–12650	82998–	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	F	22	S	12440*	12590	L,Y	
		2.3 II		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	M	15	U	12410	–	L	
		2.3 II		4		12330*	–	L,Y	
11205	X	1.3	F	15	U	12420	–	L	
		2.3 II		4		12340*	–	L,Y	
11206	X	1.3	M	21	U	12410	–	L	
11207	O	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– 11208	O	1.3 2.3 II	M	19 4	U	82998– 12410 12330*	82998– – –	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	M	18	U	24010	–	L	
		1.8 II		14		24030	–	L,Y	
		1.8 II		14		24090	–	L,Y	
11223	O	1.0 II	M	12	U	24010	–	L	
		1.8 II		6		24030	–	L,Y	
		1.8 II		6		24090	–	L,Y	
11224	O	1.0 II	F	12	U	24020*	–	L	
		1.8 II		6		24040	–	L,Y	
		1.8 II		6		24100*	–	L,Y	
11225	O	1.0 II	F	6	U	24020*	–	L	
		1.8 II		8		24040	–	L,Y	
		1.8 II		8		24100*	–	L,Y	
11226	O	1.0 II	F	12	U	24020*	–	L	
		1.8 II		6		24040	–	L,Y	
		1.8 II		6		24100*	–	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
		–		–		–	–	–	
11234	X	1.8 1.0	F	4 22	U	12190* 12310*	– –	L 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		
90980–11235	O	2.3 II	F	2	S	82998–12440*	82998–12590	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
11266	X	1.8 1.0	M	10 32	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– 11267	X	4.8 2.3 II	M	2 4	S	82998– 12470 12430*	82998– – –	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	
11298	X	2.3 II	M	3	U	12330*	–	L,Y	
11299	O	2.3 II	M	2	U	12330*	–	L,Y	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– 11300	O	2.3 II	M	2	U	82998– 12330*	82998– –	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 2.3 II	F	2 2	S	12480 12440*	– 12590	Y L,Y	
11305	X	1.3	M	2	U	12410	–	L	
11306	X	1.3	F	2	U	12420	–	L	
11307	X	1.3 2.3 II	M	15 4	U	12410 12330*	– –	L L,Y	
11308	X	1.3 2.3 II	F	15 4	U	12420 12340*	– –	L L,Y	
11309	X	1.3 2.3 II	M	13 4	U	12410 12330*	– –	L L,Y	
11310	X	1.3 2.3 II	F	13 4	U	12420 12340*	– –	L L,Y	
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 6.3 II	M	20 1	U	12330* –	– –	L,Y –	
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 2.3 II 6.3 II	F	22 22 1	S U S	12440* 12340* 24160	12590 – –	L,Y L,Y 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	
11328	X	1.3	M	4	S	12630	–	L	Inner
11329	X	1.3	F	4	S	12650	–	L	Outer

## 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–		
11330	X	1.3	F	4	S	12650	–	L	Inner
11331	X	2.3 II	M	10	U	–	–	–	PCB
11332	O	4.8 2.3 II	F	2 8	S	12480 12440*	– 12590	Y L,Y	
11333	X	1.8 1.0	M	4 22	U	12180 –	– –	L –	
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 1.8 II	M	60 16	U	– –	– –	–	PCB
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 2.3 II 8.0	M	4 38 1	U	12370 12330* 12390	– – –	Y L,Y Y	
11356	X	4.8 2.3 II	M	4 24	U	12370 12330*	– –	Y L,Y	
11357	X	2.3 II	M	27	U	12330*	–	L,Y	
11359	X	4.8 2.3 II	F	4 51	U	12380 12340*	– –	Y L,Y	
11360	X	4.8 2.3 II 8.0	F	4 38 1	U	12380 12340* 12400	– – –	Y L,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– 11361	X	4.8 2.3 II	M	4 4	U	82998– – –	82998– – –	– – –	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
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	

## 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– 11392	O	1.0 II 1.8 II	F	16 6	U	82998– 24020* 24100*	82998– – –	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	M	12	U	–	–	–	PCB
		1.0 II		32		–	–	–	
		1.8 II		10		–	–	–	
11406	X	1.0 II	F	22	U	24020*	–	L	
		1.8 II		4		24100*	–	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	M	21	U	–	–	–	PCB
		2.3 II		4		–	–	–	
11412	O	4.8	M	3	S	12470	–	Y	
		2.3 II		2		12430*	–	L,Y	
11413	O	4.8	F	3	S	12480	–	Y	
		2.3 II		2		12440*	12590	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	M	12	U	–	–	–	PCB
		1.0 II		16		–	–	–	
		1.8 II		10		–	–	–	
11419	X	2.3 II	M	10	U	–	–	–	PCB
11420	X	2.3	F	17	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– 11421	O	1.0 III 1.0 IV	F	20 11	U	82998– 12690* 12740	82998– – –	L L	
11422	X	1.0 II 1.8 II	F	18 8	U	24020* 24100*	– –	L L,Y	
11423	O	1.0 II 1.8 II	F	16 10	U	24020* 24100*	– –	L 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	
11449	X	1.3	M	10	U	–	–	–	PCB
11450	O	1.3	F	10	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–		
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 2.3 II	M	2 6	S	12470 12430*	– –	Y L,Y	
11461	X	4.8 2.3 II	F	2 6	S	12480 12440*	– 12590	Y 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 2.3 II	F	16 4	U	12420 12340*	– –	L L,Y	
11470	X	1.3	M	3	U	12410	–	L	
11471	O	1.3	F	3	U	12420	–	L	
11472	X	1.3 2.3 II	M	30 4	U	– –	– –	–	PCB
11473	X	1.3 2.3 II	M	21 4	U	– –	– –	–	PCB
11474	X	1.3	M	12	U	–	–	–	PCB
11475	O	1.3	F	12	U	12420	–	L	
11476	O	1.0 III 1.0 IV	F	17 7	U	12690* 12740	– –	L 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 2.3 II	M	21 4	U	– –	– –	–	PCB
11484	X	2.3 II 8.0	M	1 2	U	12330* 12390	– –	L,Y Y	
11485	X	2.3 II 8.0	F	1 2	U	12340* 12400	– –	L,Y Y	
11486	O	2.3 II	M	2	S	12430*	–	L,Y	
11487	X	1.3	M	6	U	12410	–	L	
11488	X	1.3	F	6	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		
90980–11489	X	1.3	M	3	U	82998–12410	82998–	L	
11490	O	1.3	F	3	U	12420	–	L	
11491	X	6.3	F	3	S	12540	–	Y	
11492	X	1.3 2.3 II	M	4 2	U	12410 12330*	– –	L L,Y	
11493	X	1.3 2.3 II	F	4 2	U	12420 12340*	– –	L 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 2.3 II	M	16 4	U	– –	– –	–	PCB
11502	O	1.3	F	22	U	12420	–	L	
11503	O	1.3	M	22	U	12410	–	L	
11504	O	1.3 2.3 II	M	16 4	U	12410 12330*	– –	L 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 2.3 II	M	2 8	U	– –	– –	–	PCB
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	

## 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–		
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
11558	X	1.3	F	20	U	12420	–	L	
11559	X	1.3 2.3 II	M	8 9	U	12410 12330*	– –	L 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– 11560	X	1.3 2.3 II	F	8 9	U	82998– 12420 12340*	82998– – –	L L,Y	
11561	X	1.3 2.3 II	M	6 10	U	12410 12330*	– –	L L,Y	
11562	X	1.3 2.3 II	F	6 10	U	12420 12340*	– –	L L,Y	
11563	O	1.8 1.0	M	10 32	U	– –	– –	– –	PCB
11564	O	1.0 II 1.8 II	M	26 16	U	– –	– –	– –	PCB
11565	O	1.0 II 1.8 II	F	10 6	U	24020* 24100*	– –	L 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 8.0	F	2 2	S	12440* 12500	12590 –	L,Y 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 1.0	M	22 32	U	– –	– –	– –	PCB
11576	O	1.8 1.0	M	16 48	U	– –	– –	– –	PCB
11577	O	1.8 1.0	M	16 60	U	– –	– –	– –	PCB
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
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

## 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– 11590	X	1.3 2.3 II	M	8 6	U	82998– 12410 12330*	82998– – –	L L,Y	
11591	X	1.3 2.3 II	F	8 6	U	12420 12340*	– –	L 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 2.3 II	F	10 8	U	12420 12340*	– –	L L,Y	
11595	O	1.3 2.3 II	F	10 8	U	12420 12340*	– –	L L,Y	
11596	O	4.8 2.3 II	M	2 8	U	12370 12330*	– –	Y L,Y	
11597	X	1.8 1.0	M	10 32	U	– –	– –	–	PCB
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 2.3 II 8.0	M	3 12 2	S	12470 12430* 12490	– – –	Y L,Y Y	
11601	X	4.8 2.3 II 8.0	F	3 12 2	S	12480 12440* 12500	– 12590 –	Y L,Y Y	
11602	X	4.8 2.3 II	M	2 3	U	12370 12330*	– –	Y L,Y	
11603	X	4.8 2.3 II	F	2 3	U	12380 12340*	– –	Y L,Y	
11604	O	2.3 II	F	13	U	12340*	–	L,Y	
11605	X	1.3 2.3 II	M	2 2	U	12410 12330*	– –	L L,Y	
11606	X	1.3 2.3 II	F	2 2	U	12420 12340*	– –	L 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 2.3 II	M	3 8	S	12470 12430*	– –	Y L,Y	
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	

## 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– 11612	X	4.8 2.3 II	F	3 8	S	82998– 12480 12440*	82998– – 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	
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	

## 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– 11641	O	1.3	M	10	U	82998– –	82998– –	–	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	–	–	–	–	–	–	–	
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	

## 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– 11671	O	1.3 2.3 II	F	8 9	U	82998– 12420 12340*	82998– – –	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	
11724	X	2.3 II	M	2	U	12350*	–	L,Y	
11731	X	HEAD-LAMP	F	3	U	24140	24200	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-	O	1.8	M	22	U	82998-	82998-	PCB	
		1.0		16		-	-		
		1.0 II		16		-	-		
		1.8 II		22		-	-		
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	
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	

## 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– 11781	X	2.3 II	F	10	U	82998– 12340*	82998– –	L,Y	
11782	X	2.3 II	F	12	U	12340*	–	L,Y	
11784	O	4.8 2.3 II	F	2 7	S	12480 12440*	– 12590	Y L,Y	
11785	X	1.0 J 1.8 J	M	48 16	U	– –	– –	–	PCB
11786	X	1.0 J 1.8 J	F	16 10	U	– –	– –	–	
11787	X	1.0 J	F	16	U	–	–	–	
11788	X	1.0 J 1.8 J	F	16 6	U	– –	– –	–	
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	
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	

## 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–		
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	
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	

## 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– 11893	X	4.8 2.3 II	F	4 20	S	82998– 12480 –	82998– – 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	
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	

## 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– 11933	X	1.0 III	M	2	U	82998– 12670*	82998– –	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	–	L	
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	SOCK-ET	F	1	S	–	–	–	
11944	O	SOCK-ET	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*	–	L,Y	
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*	–	L,Y	
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*	–	L,Y	
11960	X	2.3 II	F	5	S	12440*	12590	L,Y	
11961	X	1.0 III	M	5	U	–	–	–	PCB
		1.0 III		28		–	–	–	
11962	X	9.5	M	1	S	–	–	–	
11963	X	9.5	F	1	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		
90980–11964	O	2.3 II	F	4	S	82998–12440*	82998–12590	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	
12006	O	–	–	–	–	–	–	–	
12007	X	1.0 III 2.3 II	F	4 9	U	12690* 12340*	– –	L 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– 12008	O	1.0 III 2.3 II	F	2 8	U	82998– 12690* 12340*	82998– – –	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	
12035	X	1.0 III 2.3 II	M	41 6	U	– –	– –	–	PCB
12036	X	1.0 III	M	5	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– 12037	X	1.0 III 2.3 II	M	16 4	U	82998– – –	82998– – –	– – –	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	
12095	X	M6 NUT	F	3	S	–	–	–	
12096	X	1.0 III 2.3 II	F	12 20	U	12690* 12340*	– –	L 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–		
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
12142	X	0.64 1.0 IV	F	24 7	U	12750* 12740	– –	L 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– 12143	X	0.64 1.0 IV	F	25 7	U	82998– 12750* 12740	82998– – –	L L	
12144	X	0.64 1.0 IV	F	27 7	U	12750* 12740	– –	L L	
12145	X	0.64 1.0 IV	F	28 7	U	12750* 12740	– –	L L	
12146	X	0.64 1.0 IV	F	29 6	U	12750* 12740	– –	L 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* 12340*	– –	L L,Y	
12150	X	0.64 2.3 II	F	20 6	U	12750* 12340*	– –	L L,Y	
12151	X	0.64 2.3 II	F	28 2	U	12750* 12340*	– –	L 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* 12330*	– –	L 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* 12340*	– –	L 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
12171	X	0.64	M	40	U	–	–	–	PCB
12174	X	1.0 II	F	18	U	24020*	–	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		
90980–12176	O	2.3 II	F	4	S	82998–	82998–	L,Y	
12177	X	2.3 II	M	4	S	–	12790*	L,Y	
12179	X	1.0 III 2.3 II	F	42 4	U	12690* 12340*	– –	L L,Y	
12182	X	0.64	M	12	U	–	–	–	PCB
12183	X	0.64	F	12	U	12750*	–	L	
12184	X	1.0 III 2.3 II	F	30 12	U	12690* 12340*	– –	L 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 2.3 II	M	20 6	U	– –	– –	–	PCB
12203	X	0.64 2.3 II	F	20 6	U	12750* 12340*	– –	L 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 2.3 II	M	26 8	U	– –	– –	–	PCB
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
12215	X	0.64	M	24	U	–	–	–	PCB
12216	X	0.64	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		
90980–12217	X	0.64	F	8	U	82998–12750*	82998–	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	
12273	X	1.0 III 2.3 II	F	6 6	U	12690* 12340*	–	L 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– 12274	X	1.0 III 2.3 II	F	18 18	U	82998– 12690* 12340*	82998– – –	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 .....	F-1
NON-WATERPROOF TYPE .....	F-6
TERMINAL PACKING .....	F-19
HOLE PLUG .....	F-21
PRESS SLEEVE .....	F-22

## HINT:

Waterproof exclusive repair wires for 6.3, 7.7 and TODC are not available.  
(Available wires are for both waterproof and non-waterproof)

## NOTES:

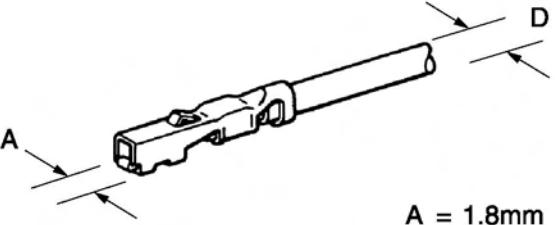
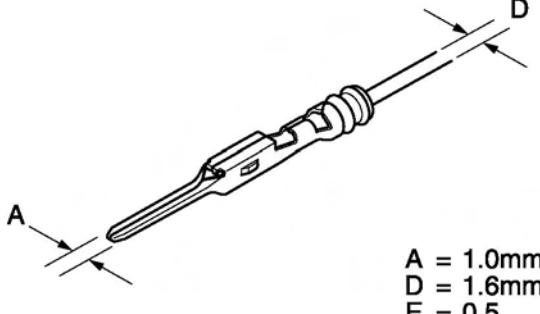
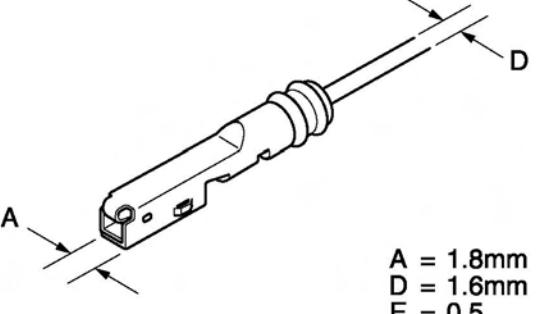
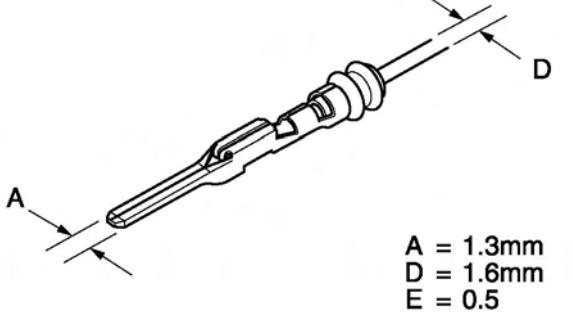
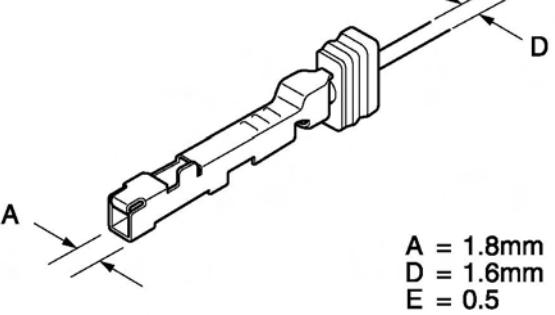
The following marks are used in the table.

A	Terminal width
B	Terminal diameter
C	Terminal guide width
D	Wire outside diameter
E	Nominal size of wire
*	Glod plated (Gilded)

F

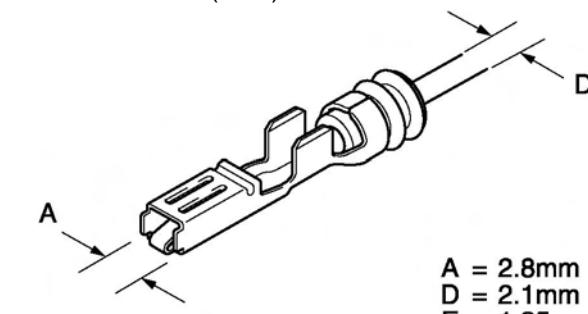
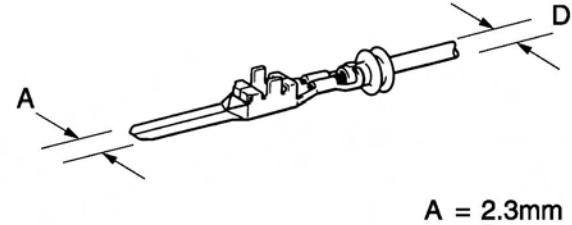
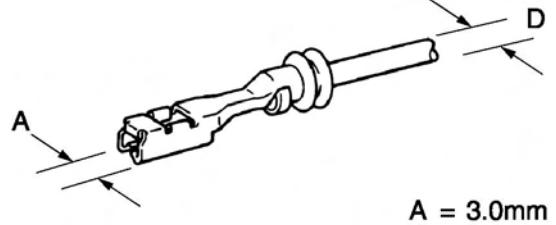
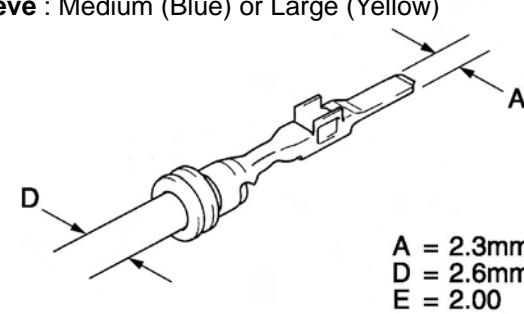
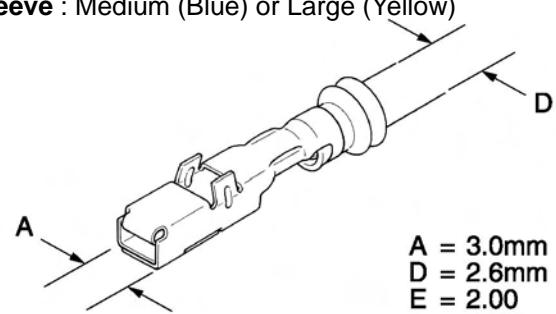
F

**TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE****Repair Wire (Waterproof Type)**

Type	<b>1.0II</b>	
	Male	Female
		 <p>A = 1.8mm D = 2.1mm E = 1.25</p>
P/N		82998-24060
Type	<b>1.0III</b>	
	Male	Female
	<b>Sleeve : Medium (Blue)</b>  <p>A = 1.0mm D = 1.6mm E = 0.5</p>	<b>Sleeve : Medium (Blue)</b>  <p>A = 1.8mm D = 1.6mm E = 0.5</p>
P/N	82998-12710	82998-12720 82998-12730*
Type	<b>1.3</b>	
	Male	Female
	<b>Sleeve : Medium (Blue)</b>  <p>A = 1.3mm D = 1.6mm E = 0.5</p>	<b>Sleeve : Medium (Blue)</b>  <p>A = 1.8mm D = 1.6mm E = 0.5</p>
P/N	82998-12630	82998-12650

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

**Repair Wire (Waterproof Type)**

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

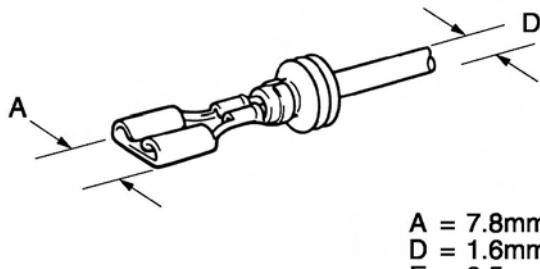
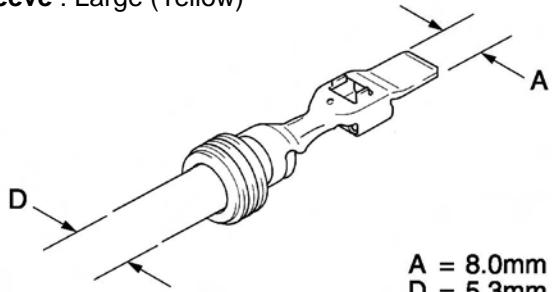
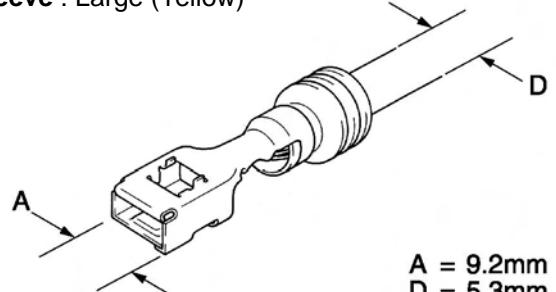
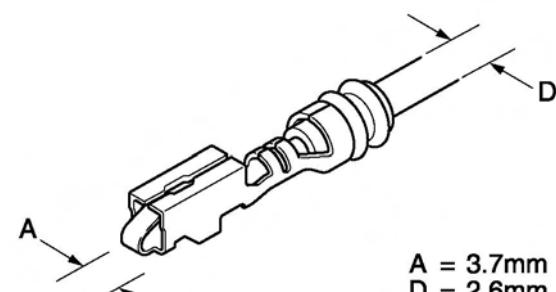
## TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE

**Repair Wire (Waterproof Type)**

Type	<b>2.3II (5mm Pitch Type)</b>	
	Male	Female
		<p><b>Sleeve : Medium (Blue) or Large (Yellow)</b></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><b>Sleeve : Large (Yellow)</b></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

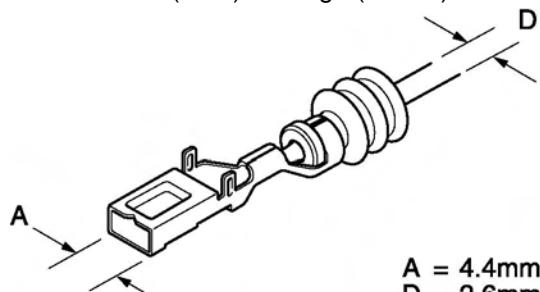
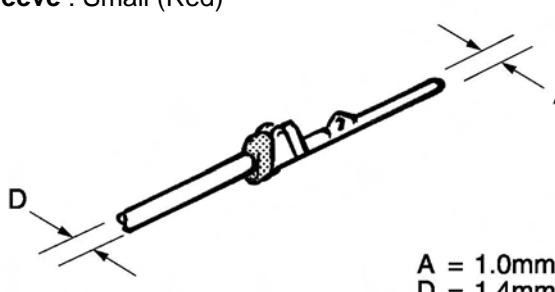
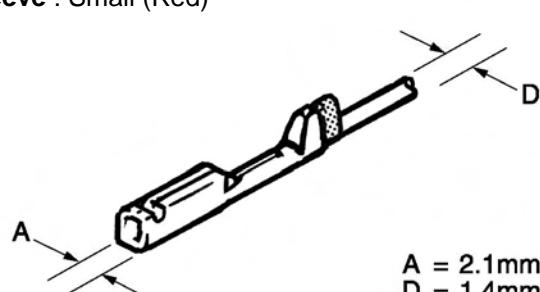
F

**TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE****Repair Wire (Waterproof Type)**

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

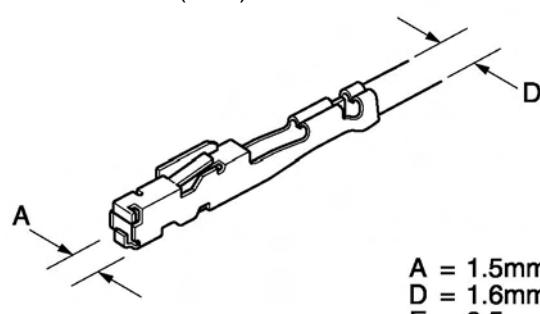
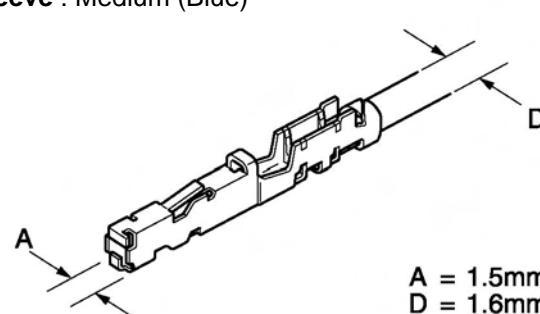
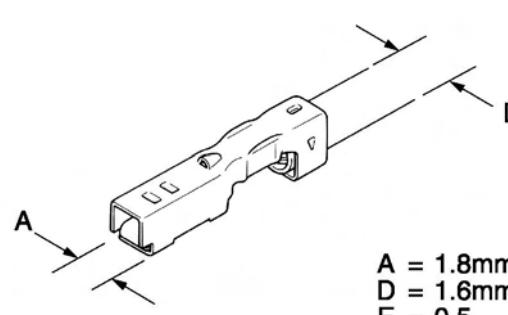
## TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE

**Repair Wire (Waterproof Type)**

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

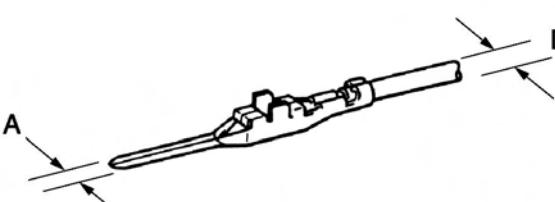
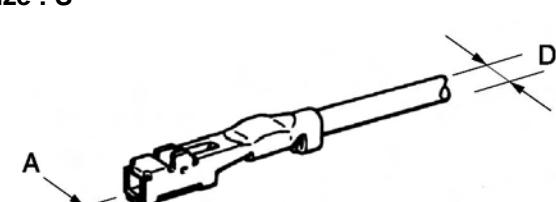
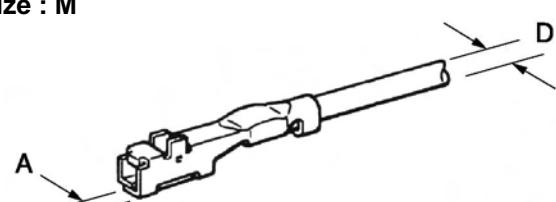
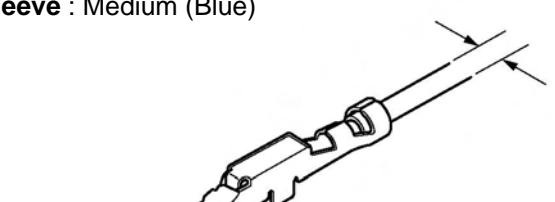
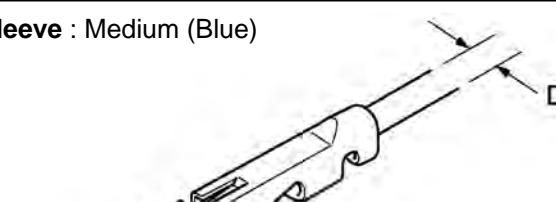
F

**TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE****Repair Wire (Non-waterproof Type)**

Type	<b>0.64</b>	
	Male	Female
		<b>Sleeve : Medium (Blue)</b>  <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
		<b>Sleeve : Medium (Blue)</b>  <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*

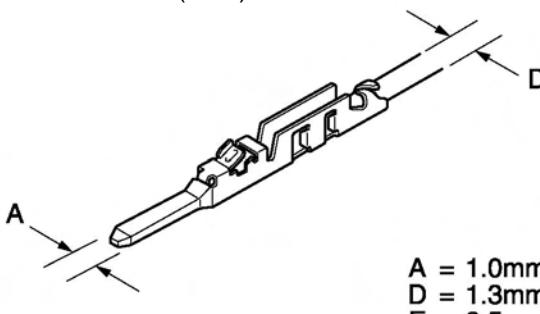
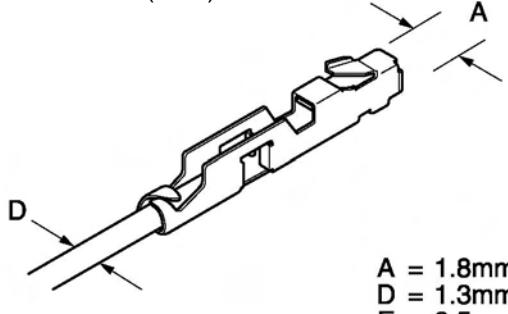
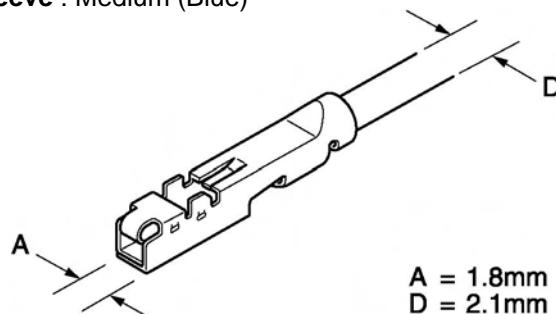
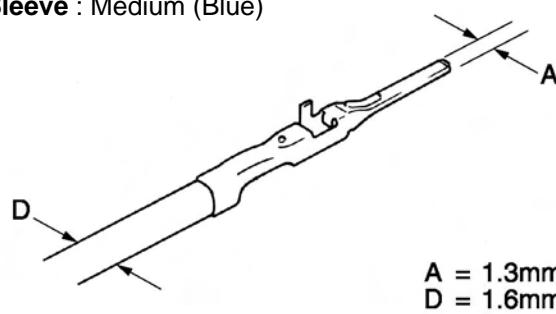
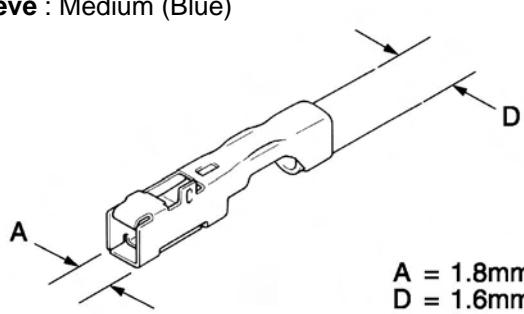
## TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE

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

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

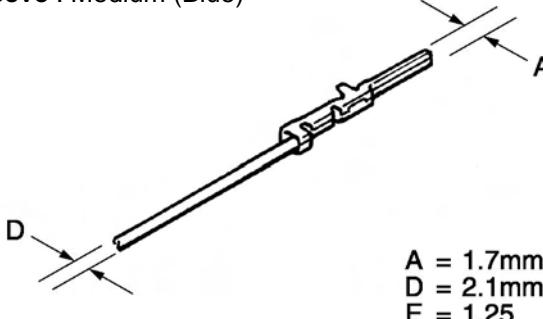
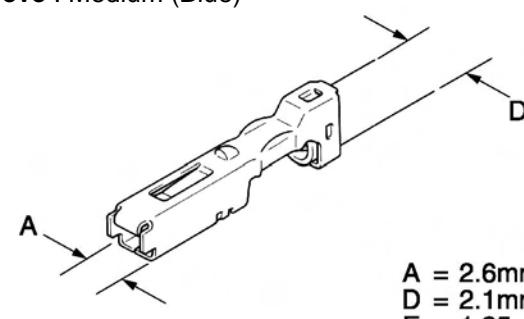
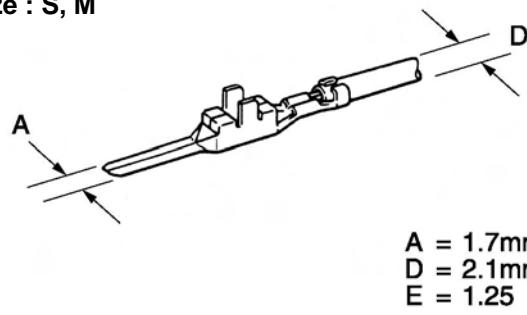
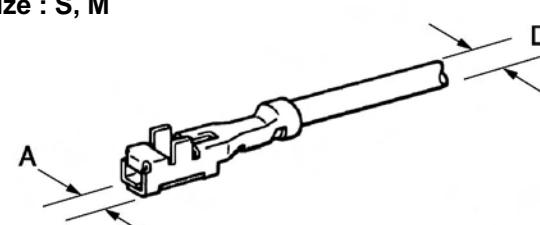
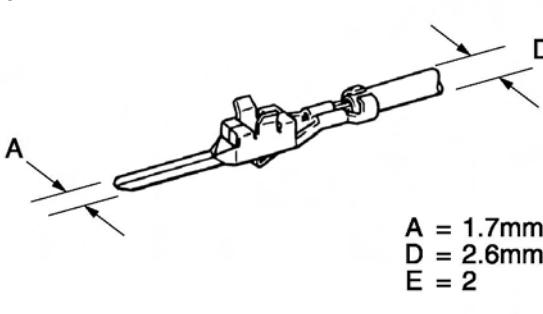
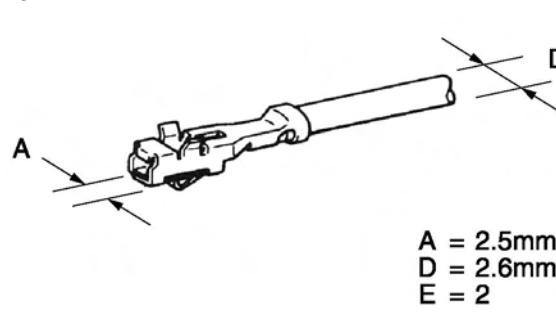
## TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE

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

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

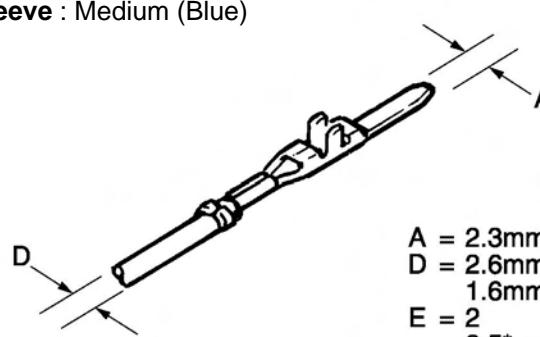
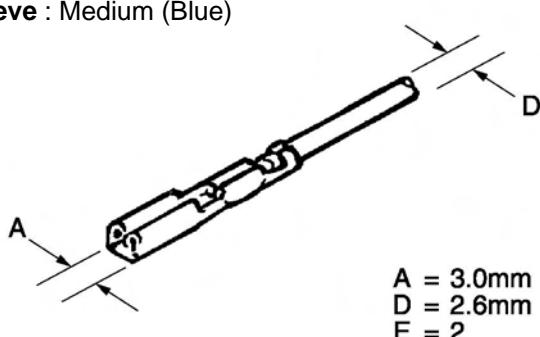
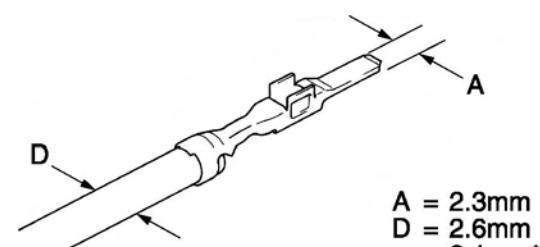
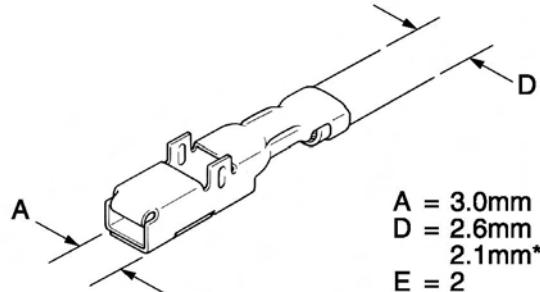
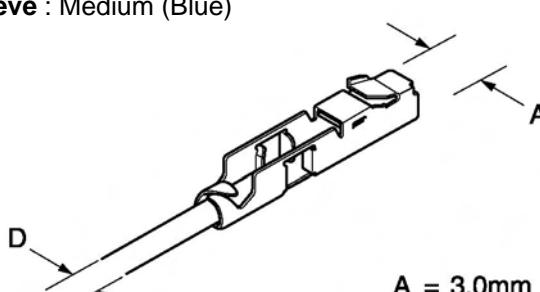
## TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE

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

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

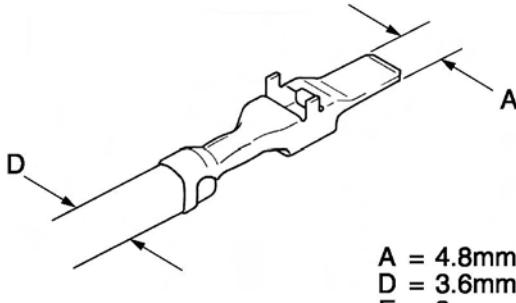
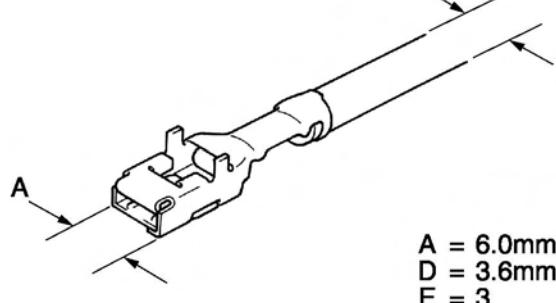
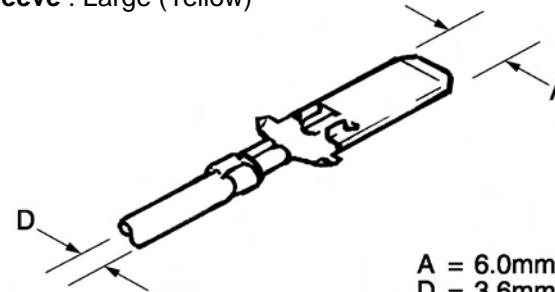
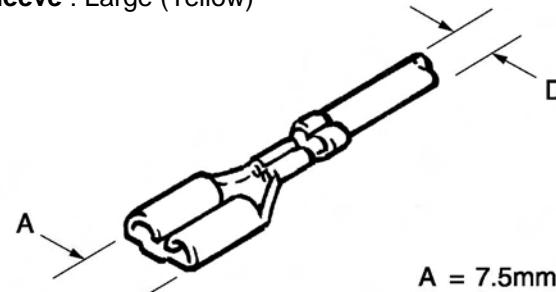
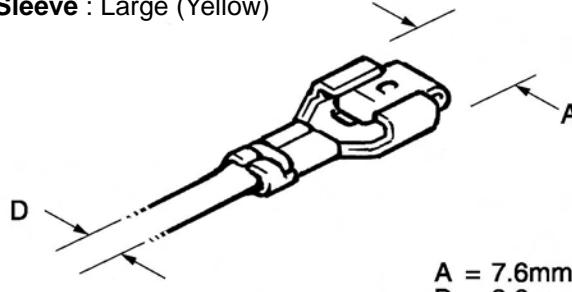
## TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE

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

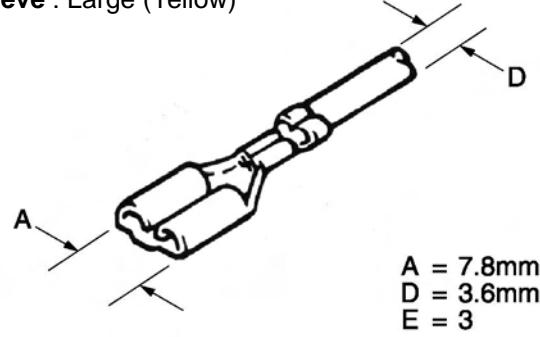
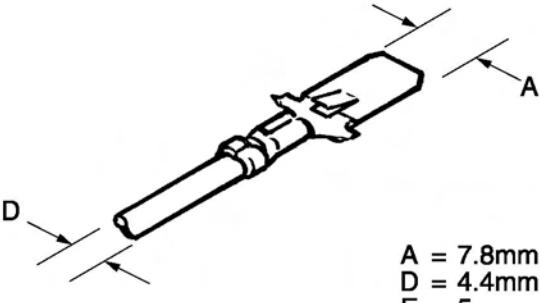
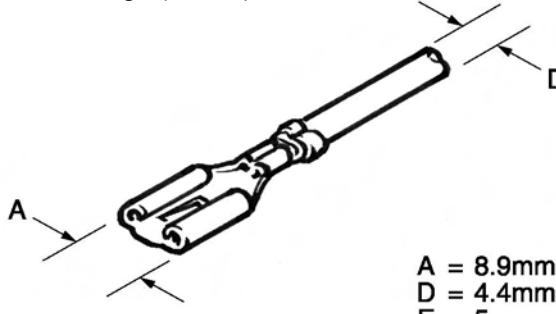
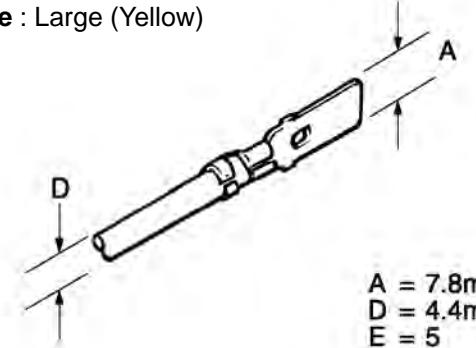
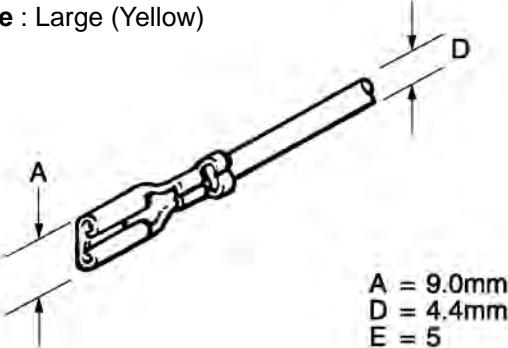
Type	<b>2.3</b>	
	Male	Female
	<b>Sleeve : Medium (Blue)</b>  <p>A = 2.3mm D = 2.6mm E = 2.0mm*</p>	<b>Sleeve : Medium (Blue)</b>  <p>A = 3.0mm D = 2.6mm E = 2.0mm</p>
P/N	82998-12160 82998-24050*	82998-12170
Type	<b>2.3II</b>	
	Male	Female
	<b>Sleeve : Medium (Blue) or Large (Yellow)</b>  <p>A = 2.3mm D = 2.6mm E = 2.1mm*</p>	<b>Sleeve : Medium (Blue) or Large (Yellow)</b>  <p>A = 3.0mm D = 2.6mm E = 2.1mm*</p>
P/N	82998-12330 82998-12350*	82998-12340 82998-12360*
Type	<b>2.3II IDC</b>	
	Male	Female
		<b>Sleeve : Medium (Blue)</b>  <p>A = 3.0mm D = 1.8mm E = 1.25</p>
P/N		82998-24220

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

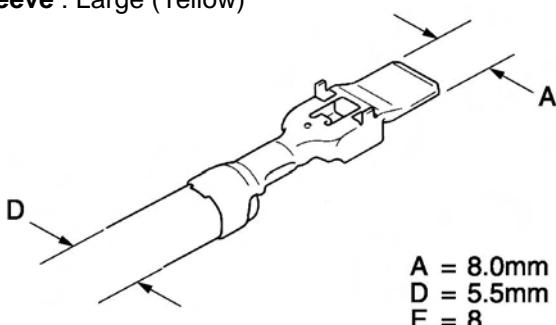
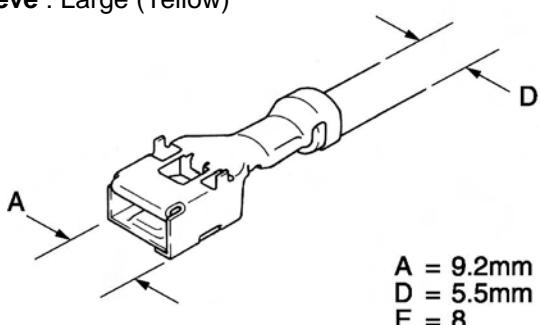
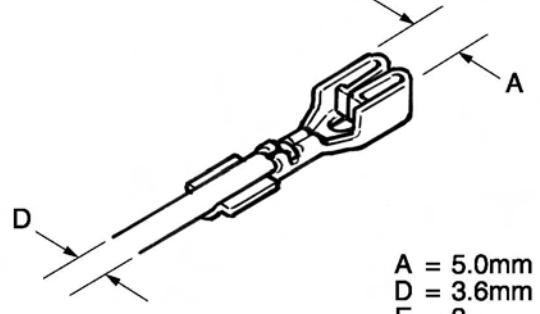
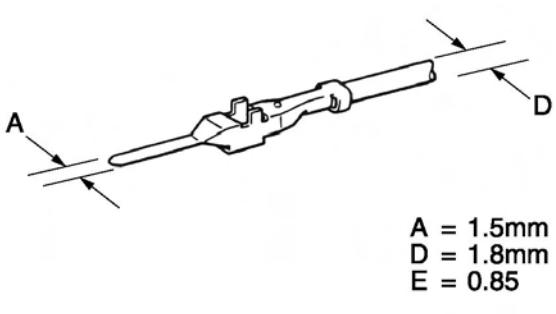
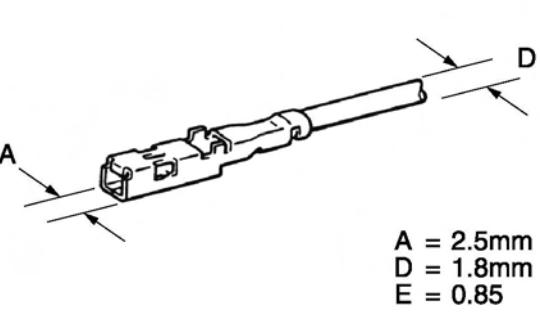
**Repair Wire (Non-waterproof Type)**

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

**TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE****Repair Wire (Non-waterproof Type)**

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

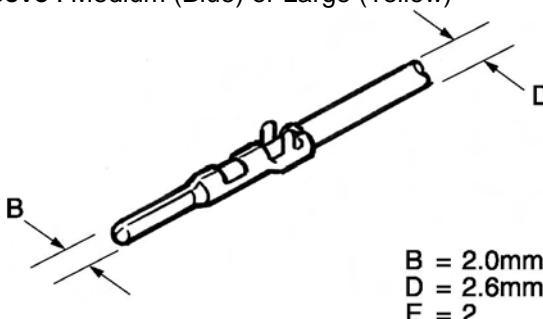
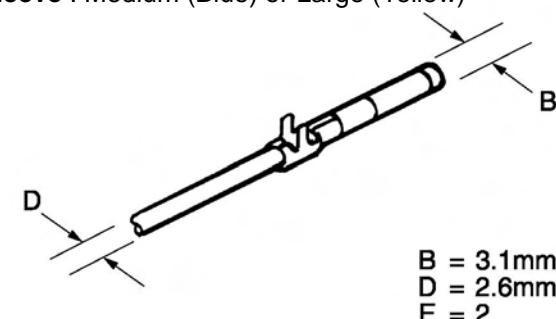
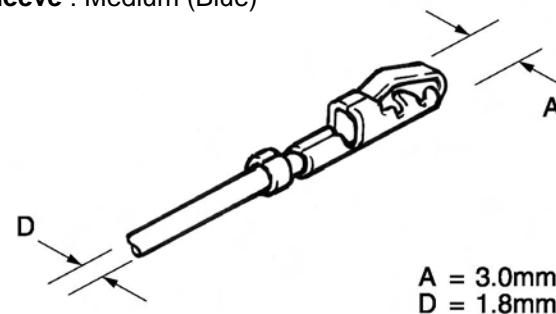
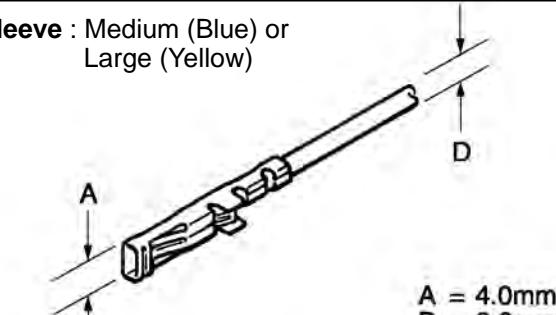
Type	<b>8.0</b>	
	Male	Female
	<b>Sleeve : Large (Yellow)</b>  <p>A = 8.0mm D = 5.5mm E = 8</p>	<b>Sleeve : Large (Yellow)</b>  <p>A = 9.2mm D = 5.5mm E = 8</p>
P/N	82998-12390	82998-12400
Type	<b>BLADE FUSE</b>	
	Male	Female
		 <p>A = 5.0mm D = 3.6mm E = 3</p>
P/N		82998-12140
Type	<b>C-Type</b>	
	Male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

**TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE****Repair Wire (Non-waterproof Type)**

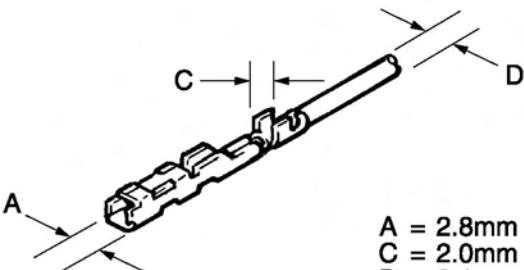
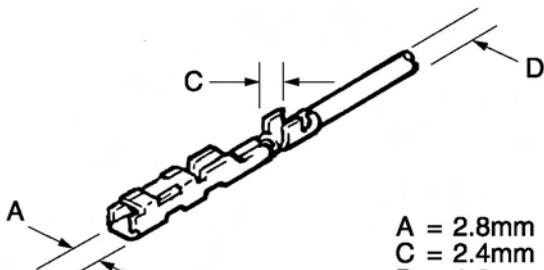
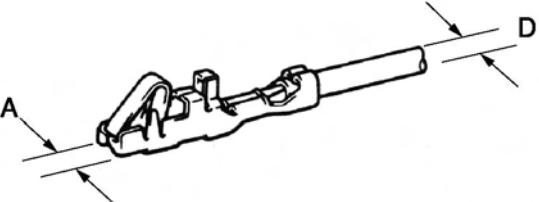
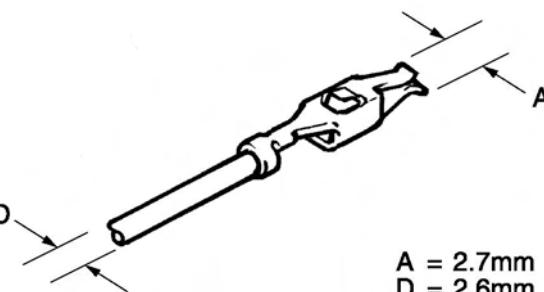
Type	<b>FOG-LP</b>	
	Male	Female
		<p><b>Sleeve :</b> Medium (Blue) or Large (Yellow)</p> <p>A = 7.2mm D = 2.6mm E = 2</p>
P/N	82998-24210	
Type	<b>FTC</b>	
	Male	Female
		<p><b>Sleeve :</b> Medium (Blue) or Large (Yellow)</p> <p>A = 6.2mm D = 2.6mm E = 2</p>
P/N	82998-12510	
Type	<b>HEAD LAMP</b>	
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

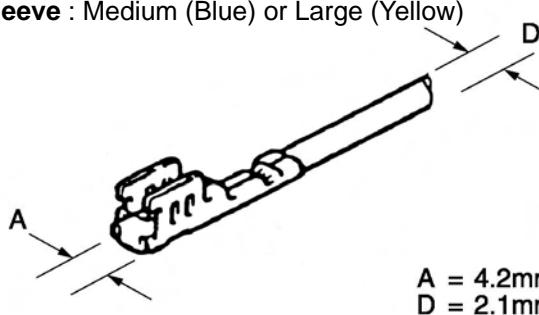
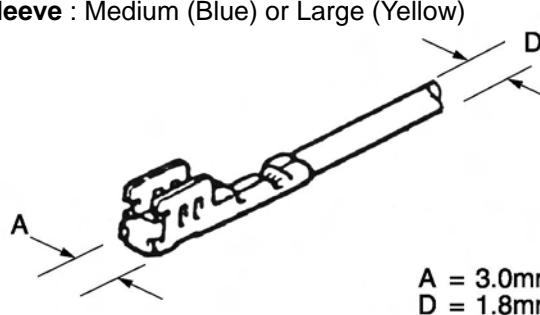
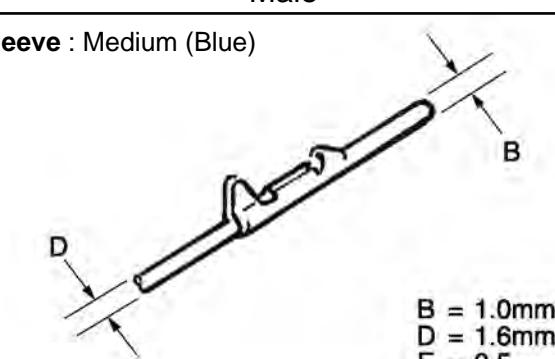
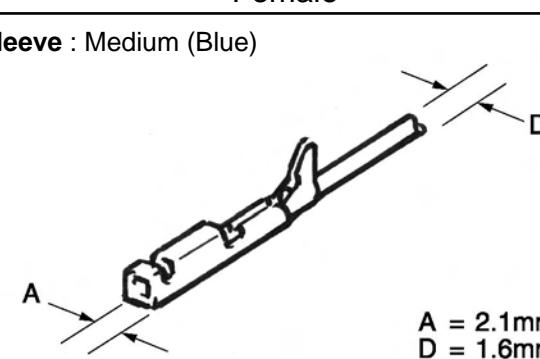
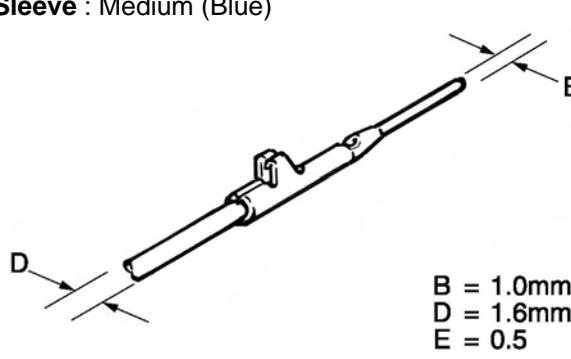
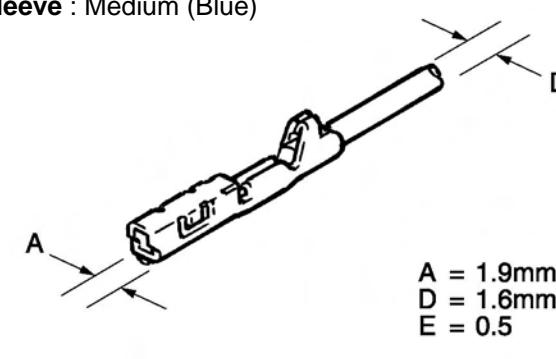
Type	<b>LAC</b>	
	Male	Female
	<p><b>Sleeve :</b> Medium (Blue) or Large (Yellow)</p>  <p>B = 2.0mm D = 2.6mm E = 2</p>	<p><b>Sleeve :</b> Medium (Blue) or Large (Yellow)</p>  <p>B = 3.1mm D = 2.6mm E = 2</p>
P/N	82998-12100	82998-12110
Type	<b>MFPC</b>	
	Male	Female
		<p><b>Sleeve :</b> Medium (Blue)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

**TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE****Repair Wire (Non-waterproof Type)**

Type	<b>PULSE LOCK</b>	
	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	<b>SFPC</b>	
	Male	Female
		<b>Sleeve : Medium (Blue)</b>  <p>A = 2.2mm D = 1.6mm E = 0.5</p>
P/N		82998-24180
Type	<b>SL</b>	
	Male	Female
		<b>Sleeve : Medium (Blue) or Large (Yellow)</b>  <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

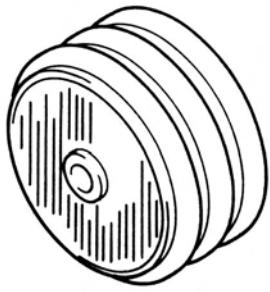
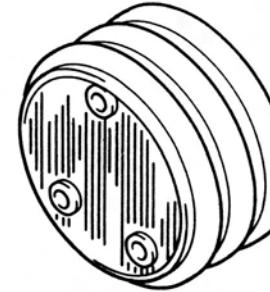
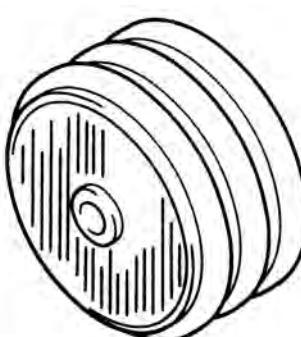
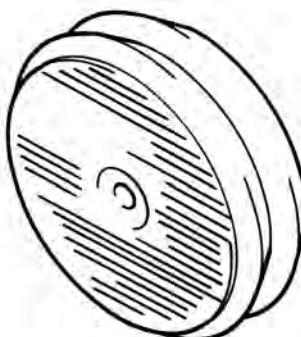
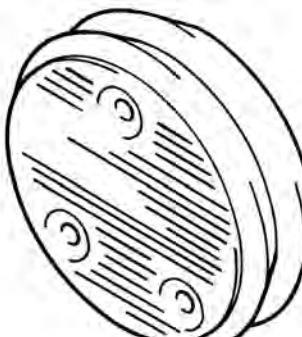
**Repair Wire (Non-waterproof Type)**

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

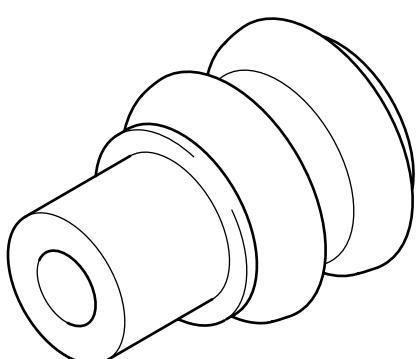
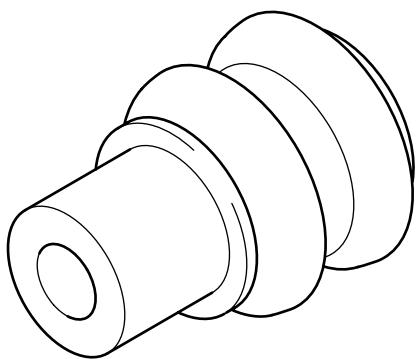
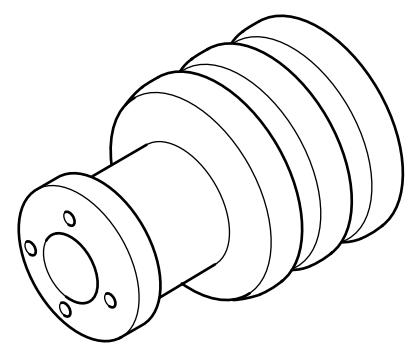
## TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE

## **Repair Wire (Non–waterproof Type)**

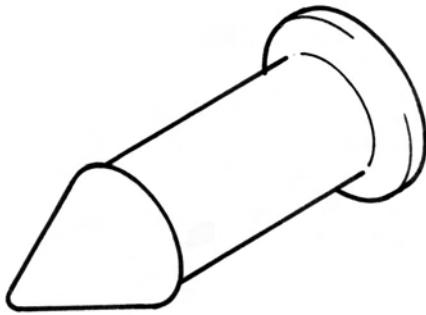
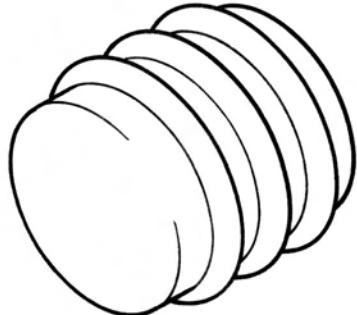
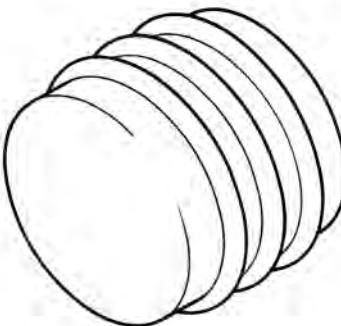
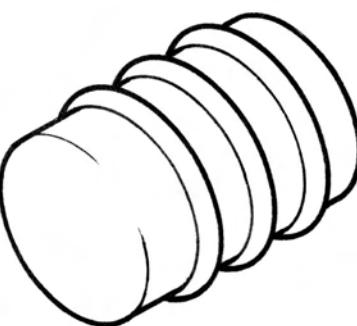
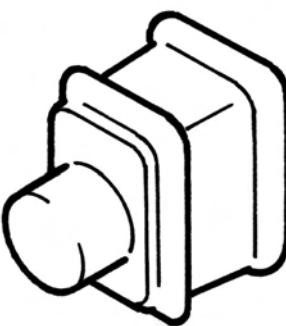
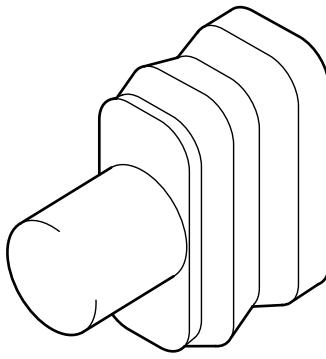
**TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE****Terminal Packing**

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

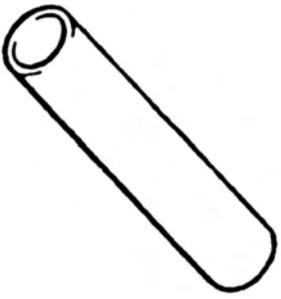
**TABLE OF REPAIR WIRE, TERMINAL PACKING, HOLE PLUG AND PRESS SLEEVE****Terminal Packing**

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

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

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

---

# **APPENDIX**

WIRE HARNESS REPAIR KIT WITH CASE . . .	G-1
REPORTING OF WIRE HARNESS PROBLEM . . . . .	G-2
PART NUMBER LIST . . . . .	G-6

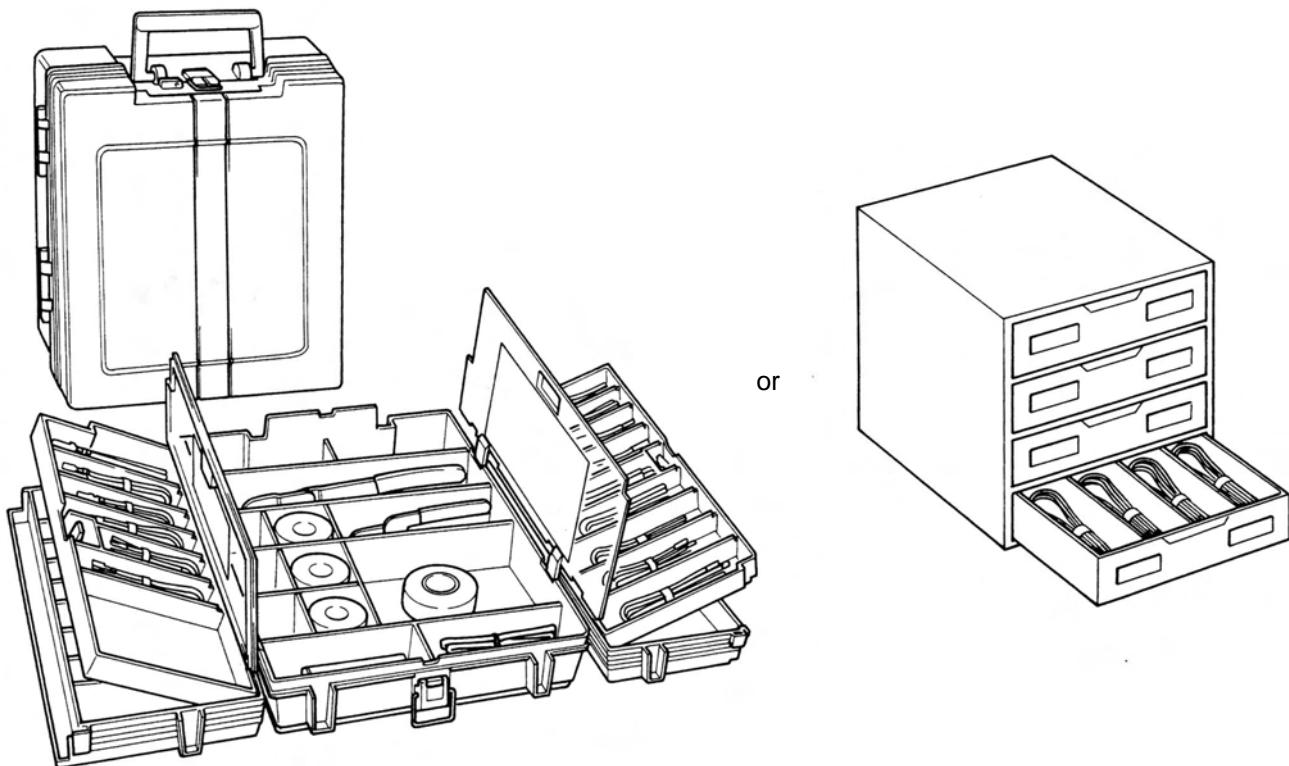
**G**

**G**

**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]

[stationary type]

G

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

**APPENDIX–REPORTING OF WIRE HARNESS PROBLEM****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 \_\_\_\_\_ / \_\_\_\_\_ /

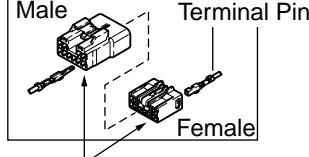
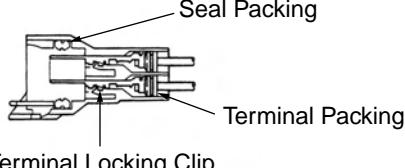
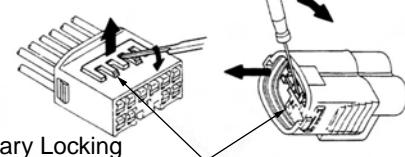
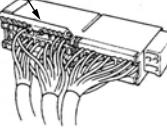
Customer Complaint: \_\_\_\_\_

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

Condition:	<input type="checkbox"/>	Intermittent operation	<input type="checkbox"/>	Inoperative	<input type="checkbox"/>	Others
Symptom:	<input type="checkbox"/>	Short	<input type="checkbox"/>	Open circuit	<input type="checkbox"/>	Moisture
	<input type="checkbox"/> 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.

<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">EWD page ( ) CONNECTOR NO.( )</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <input type="checkbox"/> TERMINAL            Male                      <input type="checkbox"/> Female            PIN No. ( )            WIRE COLOR ( )         </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <input type="checkbox"/> TERMINAL MISSING (Terminal Coming off)  <input type="checkbox"/> TERMINAL BROKEN  <input type="checkbox"/> TERMINAL BENT (Male)  <input type="checkbox"/> TERMINAL EXPANDED (Female)  <input type="checkbox"/> WIRE POORLY CRIMPED AT TERMINAL  <input type="checkbox"/> CORROSION, RUST, MOISTURE  <input type="checkbox"/> POOR CONTACT  <input type="checkbox"/> OTHERS ( )         </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <input type="checkbox"/> NON-WATERPROOF TYPE  <input type="checkbox"/> WATERPROOF TYPE            → WATER ENTERING FROM:            ( <input type="checkbox"/> SEAL PACKING    <input type="checkbox"/> WIRE HARNESS  <input type="checkbox"/> TERMINAL PACKING    <input type="checkbox"/> UNCLEAR, OTHERS )         </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <input type="checkbox"/> BROKEN LOCKING CLIP OF CONNECTOR  <input type="checkbox"/> TERMINAL LOCKING CLIP MISSING  <input type="checkbox"/> TERMINAL RETAINER BROKEN  <input type="checkbox"/> SECONDARY LOCKING PLATE MISSING  <input type="checkbox"/> OTHERS; ( )         </div>	 <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <input type="checkbox"/> CONNECTOR BODY            Male                      <input type="checkbox"/> Female         </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <input type="checkbox"/> NOT CONNECTED/HALF CONNECTED  <input type="checkbox"/> BROKEN CONNECTOR  <input type="checkbox"/> BROKEN LOCKING CLIP OF CONNECTOR  <input type="checkbox"/> OTHERS ( )         </div>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <b>Fig.1</b>            Used for All Models   </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">           Used from '89 CRESSIDA   </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">           Mainly Used for Engine ECU   </div>
---	--	---

**WIRE HARNESS PROBLEM:**

page 2/3

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

Problem occurred between <input style="width: 100px; height: 15px; border: 1px solid black; margin-bottom: 5px;" type="text"/> E.W.D Page ( <input style="width: 100px; height: 15px; border: 1px solid black; margin-bottom: 5px;" type="text"/> ) and <input style="width: 100px; height: 15px; border: 1px solid black; margin-bottom: 5px;" type="text"/> CONNECTOR NO.B ( <input style="width: 100px; height: 15px; border: 1px solid black; margin-bottom: 5px;" type="text"/> )	*CONNECTOR NO.A ( <input style="width: 100px; height: 15px; border: 1px solid black; margin-bottom: 5px;" type="text"/> ) PIN NO. ( <input style="width: 100px; height: 15px; border: 1px solid black; margin-bottom: 5px;" type="text"/> ) WIRE COLOR ( <input style="width: 100px; height: 15px; border: 1px solid black; margin-bottom: 5px;" type="text"/> )	PIN NO. ( <input style="width: 100px; height: 15px; border: 1px solid black; margin-bottom: 5px;" type="text"/> ) WIRE COLOR ( <input style="width: 100px; height: 15px; border: 1px solid black; margin-bottom: 5px;" type="text"/> )
* The problem indicated below occurred at a distance of ( <input style="width: 100px; height: 15px; border: 1px solid black; margin-bottom: 5px;" type="text"/> mm) from connector A ( <input style="width: 100px; height: 15px; border: 1px solid black; margin-bottom: 5px;" type="text"/> )		
		
		
		
<input type="checkbox"/> POOR CONTACT OF RING TYPE TERMINAL		
<input type="checkbox"/> PINCHED <input type="checkbox"/> INTERFERENCE/ABRASION <input type="checkbox"/> MOISTURE <input type="checkbox"/> CORROSION, RUST <input type="checkbox"/> OTHERS;		
<input type="checkbox"/> CUT WIRE <input type="checkbox"/> SPLICE POINT <input type="checkbox"/> OTHERS;		
<input type="checkbox"/> EARTH TERMINAL <input type="checkbox"/> POWER SOURCE TERMINAL -> <input type="checkbox"/> BATTERY -> <input type="checkbox"/> STARTER -> <input type="checkbox"/> ALTERNATOR		
<input type="checkbox"/> LOOSE SET BOLT <input type="checkbox"/> CORROSION, RUST <input type="checkbox"/> OTHERS ( <input style="width: 100px; height: 15px; border: 1px solid black; margin-bottom: 5px;" type="text"/> )		
Name of the other part which cause the short/open of wire  <input type="checkbox"/> BODY <span style="margin-left: 20px;">Name</span> <input type="checkbox"/> PART <input type="checkbox"/> OTHERS		
INSULATION: <input type="checkbox"/> YES <input type="checkbox"/> NO -> <input type="checkbox"/> CONDUIT TUBE -> <input type="checkbox"/> VINYL TUBE -> <input type="checkbox"/> VINYL TAPE -> <input type="checkbox"/> VINYL SHEET -> <input type="checkbox"/> OTHERS ( <input style="width: 100px; height: 15px; border: 1px solid black; margin-bottom: 5px;" type="text"/> )		

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.

<b>Box B</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:**

page 3/3

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 CONNECTION3. 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)

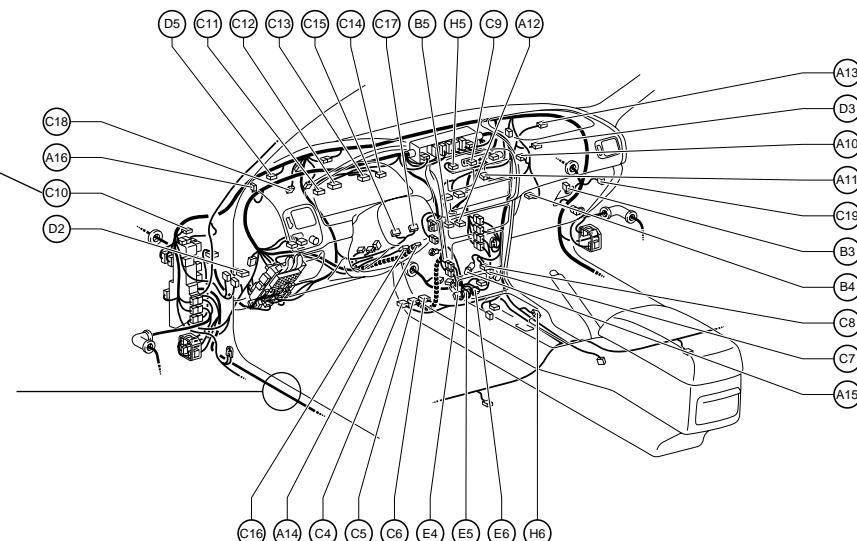
Condition: Engine does not start

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

Component: Clutch start awitch inoperation

G

Indicate by ARROW



Indicate by CIRCLE

## 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		
	M:11166 F:11167	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				
	M:11243 F:10923	M:11072 F:11070	M:11069 F:11068	F:11068	F:11255	F:10834	F:11349	M:11177 F:11178	F:11317	M:11289 F:11290				
	M:11363 F:10947	M:10959 F:11073	M:11073 F:11075	F:11140	F:11285	F:10845	M:11348	M:11291 F:11292	F:11599	F:10854				
	M:11428 F:10949	M:10948 F:11075	M:11074 F:11149	F:11149	F:12028	F:10902		F:10943		F:11144				
	M:11252 F:11003	M:11002 F:11003	M:11141 F:11142	F:11153		F:10919		F:11150		F:11858				
	M:11004 F:11005	M:11004 F:11156	M:11155 F:11154			F:10981		F:11152						
	M:11008 F:11009	M:11008 F:11162	M:11168 F:11163			F:11020								

M : Male

F : Female

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

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												
7.7	M:10114 F:10115											
8.0	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	
		M:11368 F:11369		F:11471	F:11107					F:10630		F:11450 F:11041
		F:11436			F:11494							F:11642 F:11083
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	M:11528 F:11529	M:10798 F:10799		M:11534 F:11535
	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: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
	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			
			M:11654 F:11556	F:11179	M:11573 F:11574			M:11570 F:11571		F:11125	M:11503 F:11502	M:11133 F:11055		
1.3					F:11264						F:11628	F:11043		
														M:10722
1.8	F:10658	F:10973		F:10697			F:10656		F:10696					
		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		
										F:11116		F:11114			F:11113
SFPC												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:10918				
									F:10763				
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								F:11877					
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