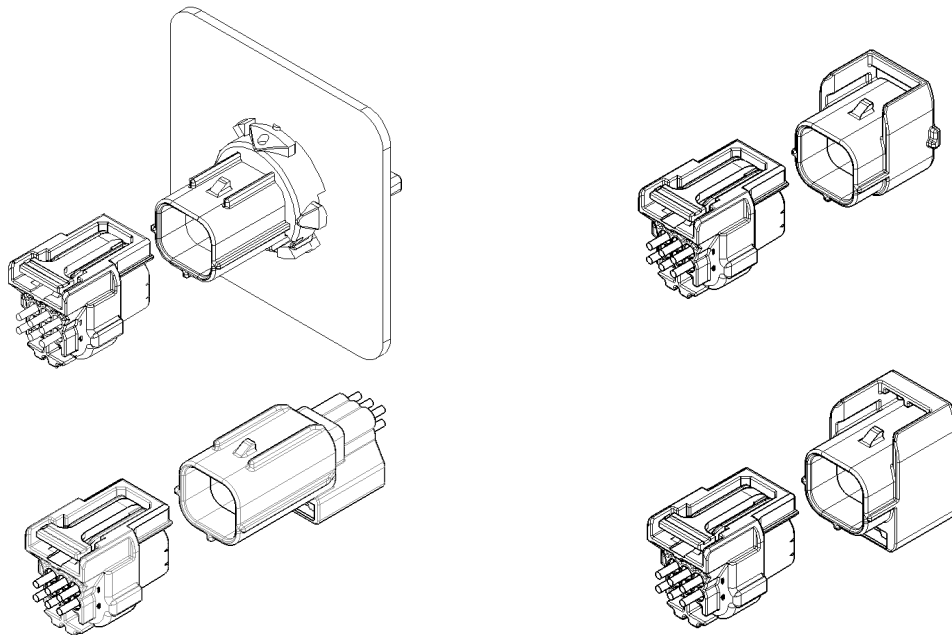


**HS 025 TYPE SEALED CONNECTOR
HANDLING MANUAL**



YAZAKI Corporation

YAZAKI Parts Co., Ltd.

October 26, 2023

Thank you for using a YAZAKI product.

Notes to Users:

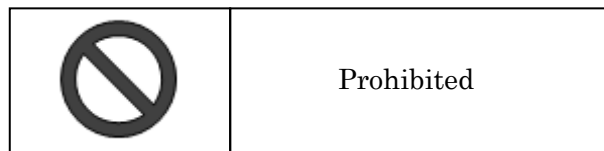
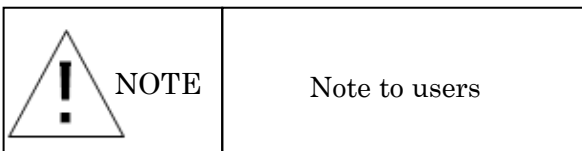
- Before using this part, please read through this handling manual to use the part correctly, and keep the manual for your future reference.
- Before using this part, please confirm that the part can fit / satisfy your production conditions, quality requirements, and performance requirements.
- If you have any questions, please send your inquiry from the link below, or contact our sales representative.

Send your inquiry via: <https://connector.yazaki-group.com/>






- Please be informed that the contents in this handling manual may be revised without any notice.

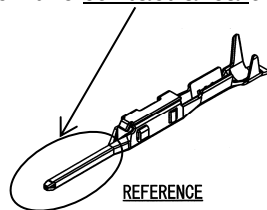
Safety precautions:

This manual contains safety precautions, which should be followed in order to protect a user and user's properties. Please read those precautions thoroughly and use / operate the part correctly. YAZAKI shall not be liable for any damage resulting from wrong use of the part or failure to follow those instructions.



<h2>Important Notes</h2>

-  Keep water away from the part.
-  Use the correct parts and in the correct combination.
-  Do not use a deformed or damaged part.
-  Crimp the terminal on the wire in accordance with crimping parameters and with a crimping machine specified by the wire harness supplier.
-  Do not touch the contact area of the male terminal.




-  If ultrasonic welding, resistance welding, laser welding, or other technique which applies heat and/or vibrations to the product is used, confirm in advance that the product is not damaged or deformed. Do not use any damaged or deformed product.

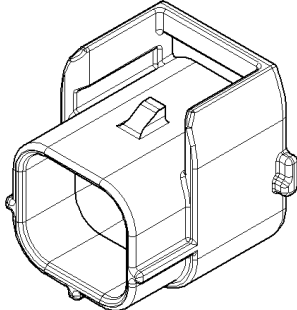
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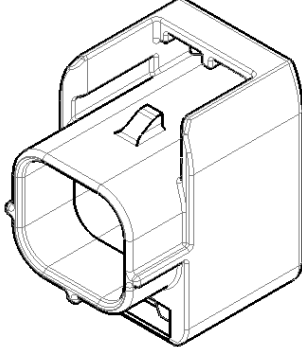
1. Components, part names and functions

1-1. Connector components

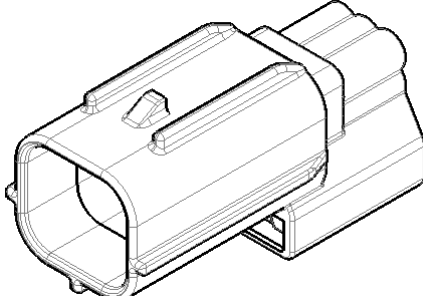
Cap
(Simple type)



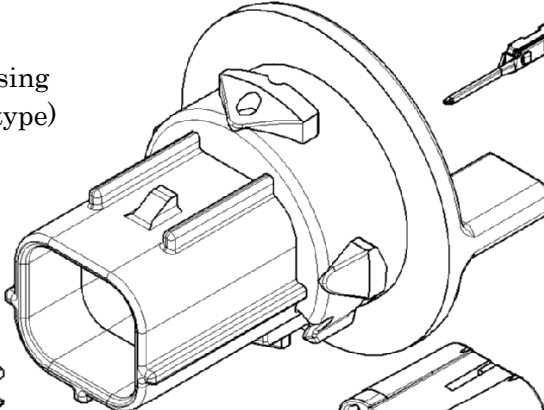
Cap
(Through lock type)



Male housing
(Through lock type)

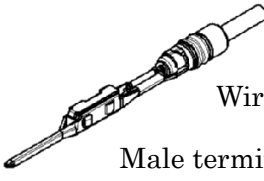


Male housing
(Bayonet type)

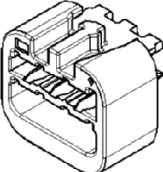


Wire seal

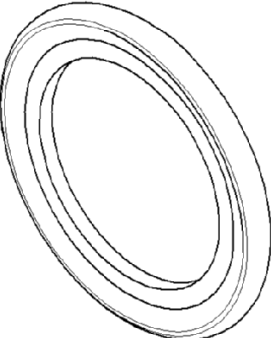
Male terminal



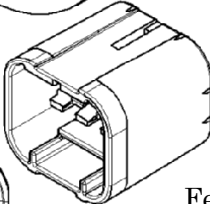
Male front holder



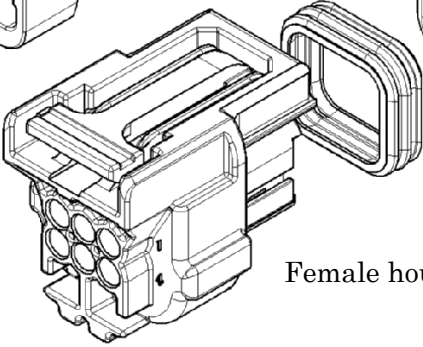
Gasket



Female front holder

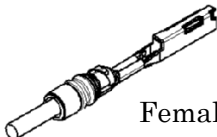


Packing



Female housing

Female terminal

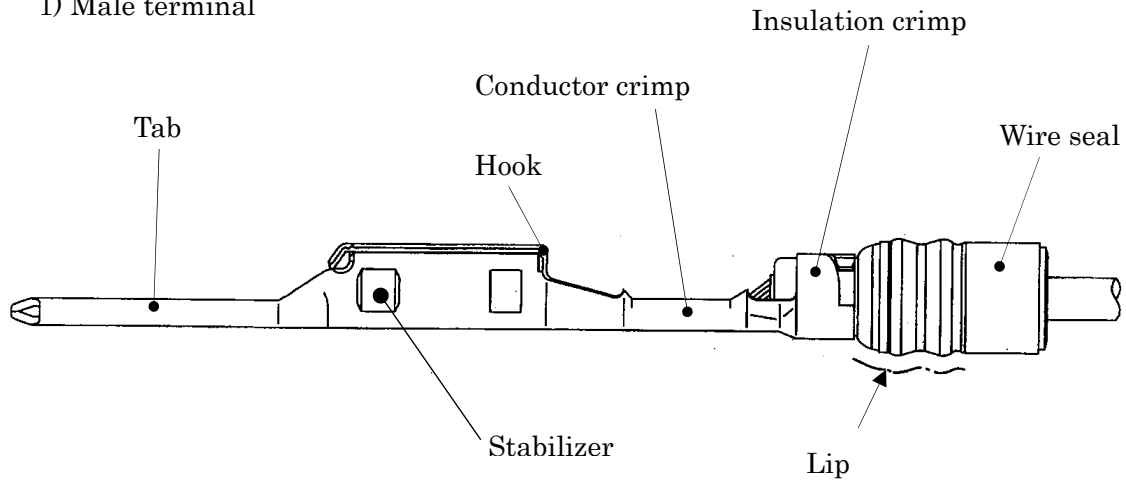


Wire seal

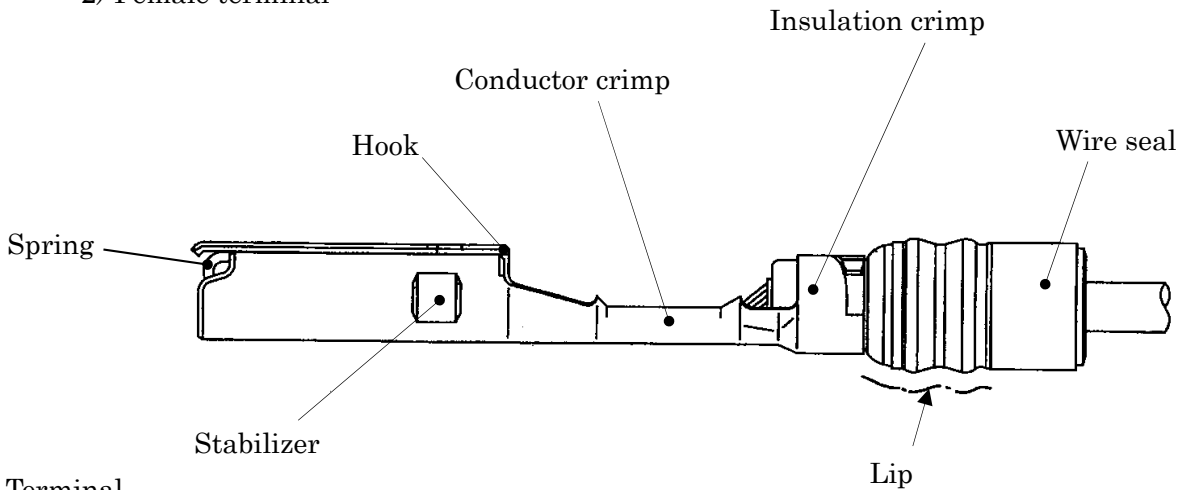
1-2. Part names and functions

1-2-1. Terminal

1) Male terminal



2) Female terminal



Terminal

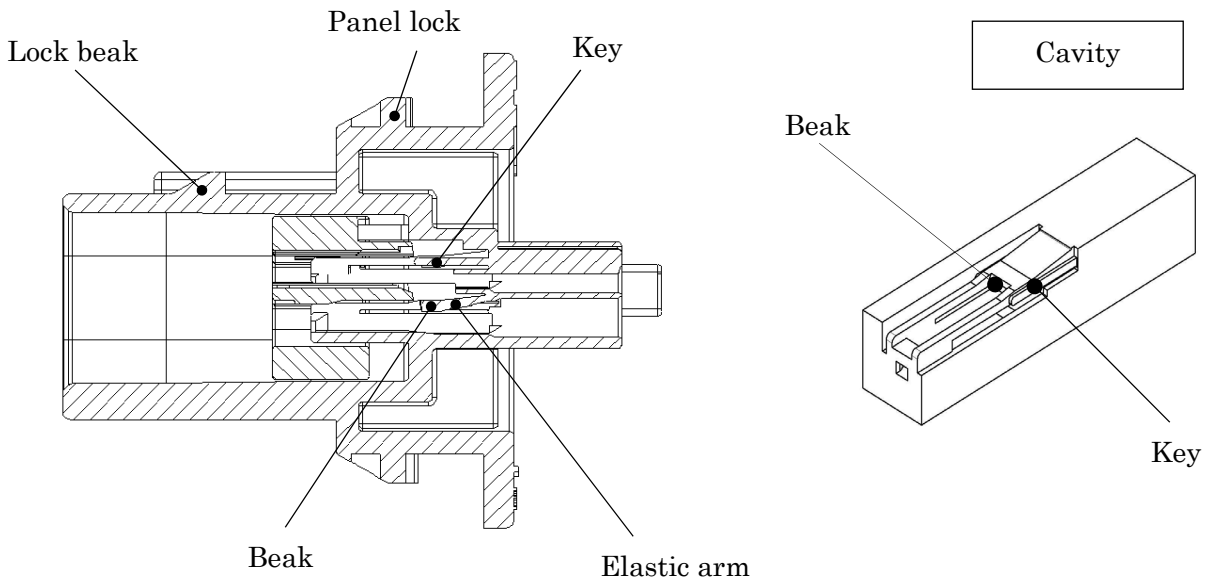
Part name	Function
Tab	A part which comes into contact with the female terminal
Hook	A surface used to lock the terminal in the housing
Conductor crimp	Crimping on the wire conductor for electrical connection
Insulation crimp	Crimping on the wire insulation, and retention of the wire seal
Stabilizer	A feature to prevent the terminal from being inserted in a wrong direction in the cavity
Spring	A part which comes into contact with the male terminal

Wire seal

Part name	Function
Lip	Sealing between the wire and the housing

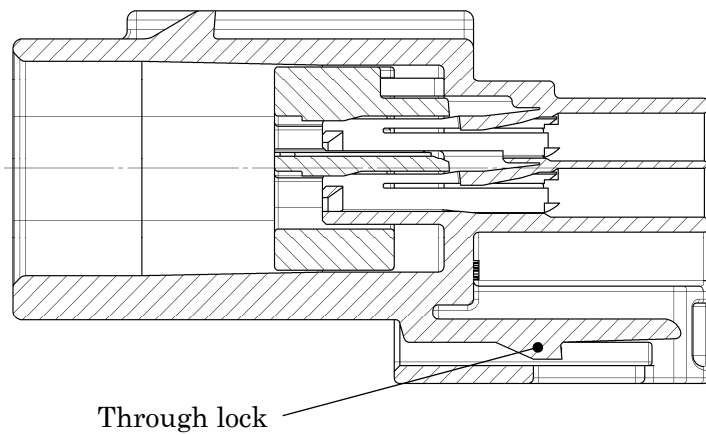
1-2-2. Housing

1) Male housing (Bayonet type)



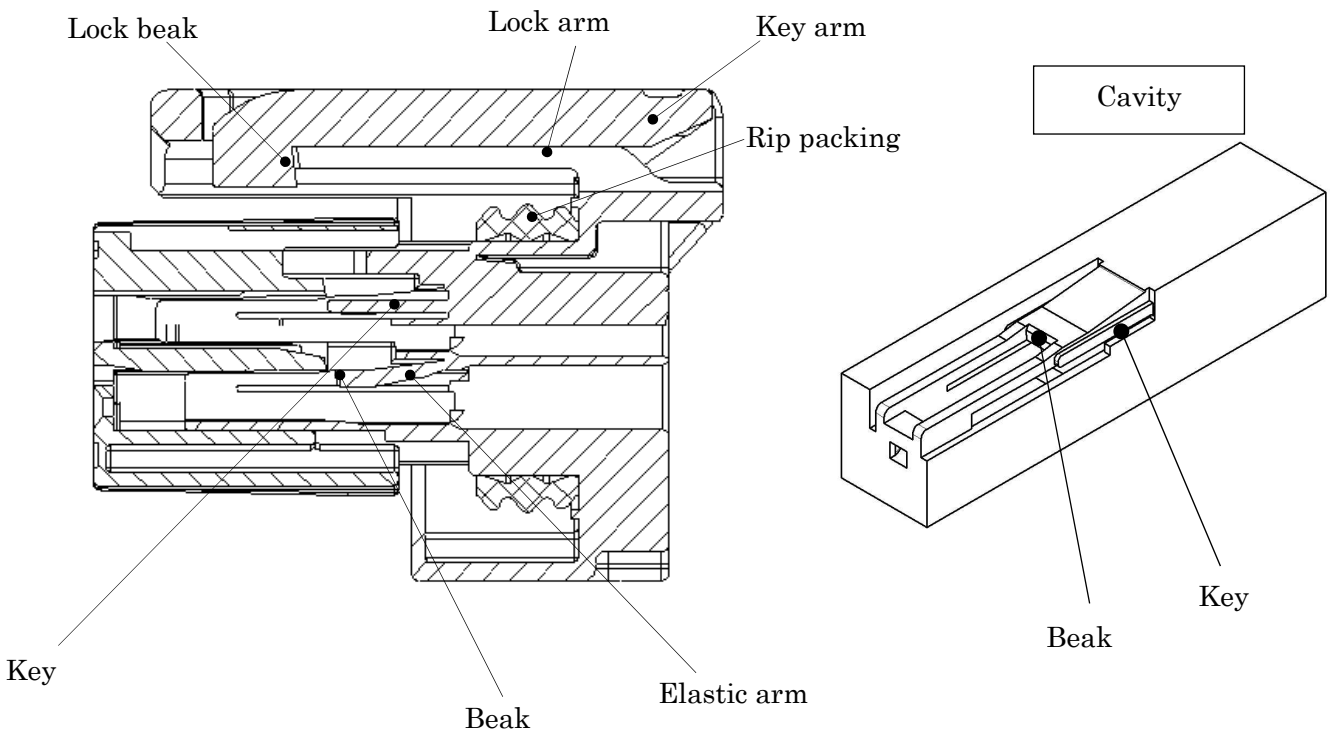
Part name	Function
Key	A feature used to release the beak
Beak	Locking with the male terminal
Elastic arm	Flexible part, which a beak is on
Lock beak	Locking with the female housing
Panel lock	Locking with the panel

2) Male housing (Through lock type)



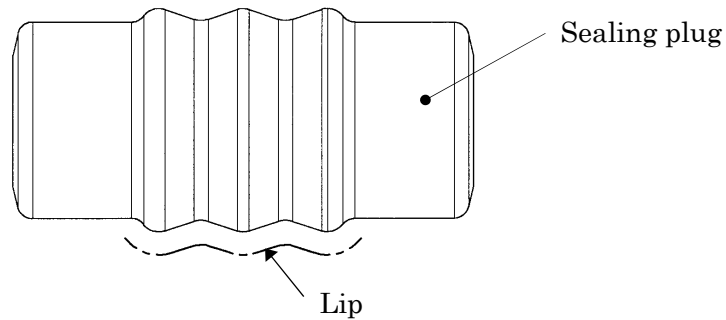
Part name	Function
Through lock	Fixation of housing to stay

3) Female housing



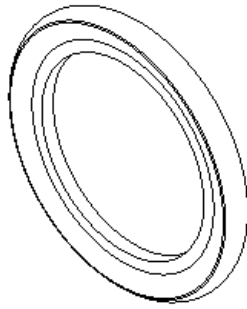
Part name	Function
Key	A feature used to release the beak
Beak	Locking with the female terminal
Elastic arm	Flexible part, which a beak is on
Lock arm	Flexible part, which the lock beak is on
Lock beak	Locking with the male housing
Key arm	A part used to release the housing lock
Rip packing	Sealing between the male and female housings

1-2-3. Sealing plug

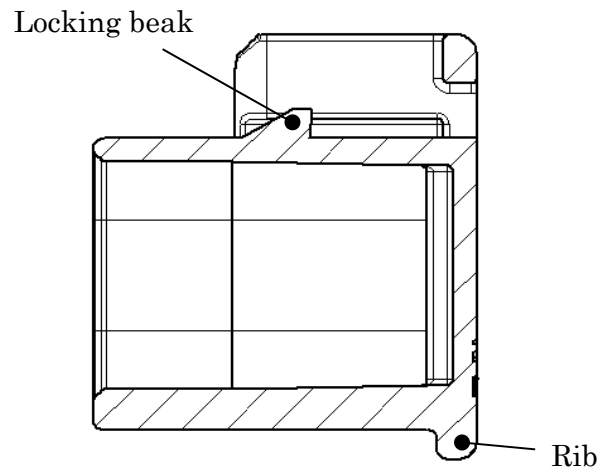
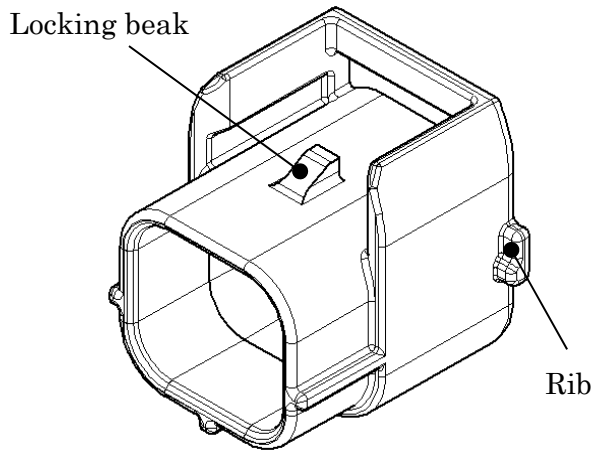


Part name	Function
Lip	Sealing of the housing cavity

1-2-4. Gasket

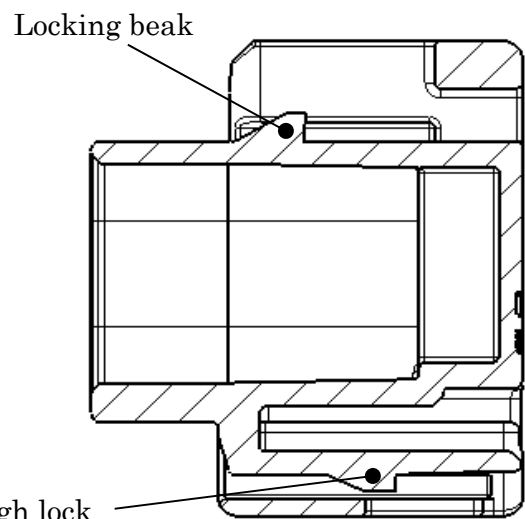
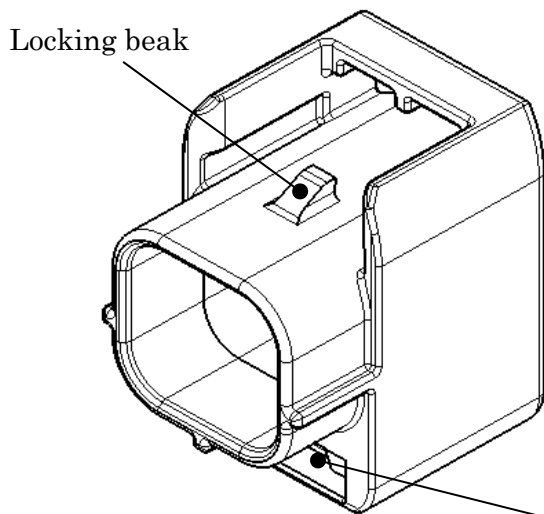


1-2-5. Cap (Simple type)



Part name	Function
Locking beak	Locking with female housing
Rib	Fixation of housing to vehicle body

1-2-6. Cap (Through lock type)



Part name	Function
Locking beak	Locking with female housing
Through lock	Fixation of housing to stay

2. Handling of parts

2-1. Incoming inspection of housing

Upon receipt of the parts, inspect them to confirm the following:

- 1) No contamination, foreign object, or wrong goods.
- 2) No crack, chipping, deformation, sink mark, or short shot
- 3) Packing is placed at the correct position.
- 4) Front holder is placed at the pre-set position.
- 5) If the front holder is at the full-lock position, move it back to the pre-set position.

2-2. Precautions for transport, storage, and handling of housing

Following are the recommendations and precautions for transport or storage of housings, which should be followed in order to prevent the parts from deforming or being damaged. As to safety precautions at actual work environment, please ask our sales representative.

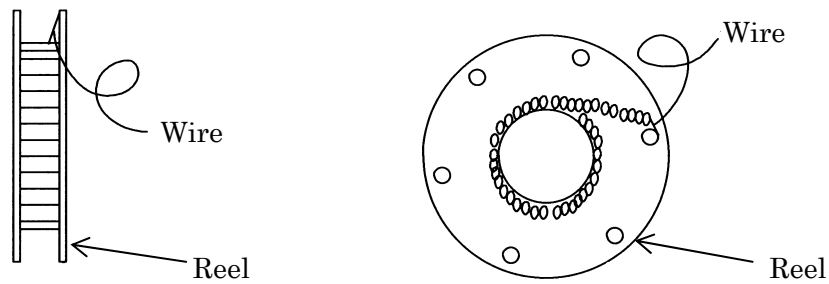
- 1) Do not stack the housings.
- 2) Store the housings at ambient temperature (5°C ~ 35°C) with low humidity, and do not expose them to direct sunlight.
- 3) If the housings are stored in a high-humidity environment, put them in a plastic bag or cardboard box to protect them from dust or rain water. (Humidity: 45 ~ 85%RH)
- 4) Do not apply strong shock to the parts, such as dropping it to the ground. If there is any deformation or damage which can be seen with naked eyes, do not use it.
- 5) Do not apply any external force to the parts during storage. The part can get deformed depending on the force and the duration.

2-3. Inspection of terminal

- 1) No foreign object or wrong goods.
- 2) No burr, crack, deformation or damage.
- 3) No discoloration, rust, dirt or peeling of plating.
- 4) No entangling of terminals or loosening of terminals in the reel.

2-4. Storage and transport of terminal

- 1) Store the terminals horizontally at ambient temperature (5°C ~ 35°C) with low humidity, and do not expose them to direct sunlight.
- 2) If the parts are stored in a high-humidity environment, put them in a plastic bag or cardboard box to protect them from dust or rain water. (Humidity: 45 ~ 85%RH)
- 3) Do not stack the terminals.
- 4) For an unfinished terminal reel, securely fix the terminals to the reel flange with e.g. a wire in order to prevent the terminals from loosening in the reel.
- 5) When moving the terminal reel, hold the center of the reel and place it vertically.
- 6) Do not apply strong shock to the parts, such as dropping it to the ground. If there is any deformation or damage which can be seen with naked eyes, do not use it.
- 7) Do not apply any external force to the parts during storage. The part can get deformed depending on the force and the duration.



Good	Not allowed
<p>Reel</p> <p>Reel</p> <p>Box</p> <p>Stacking maximum 2 boxes</p>	<p>Reel</p> <p>Reel</p> <p>Reel</p> <p>(Storage without protection)</p>

2-5. Storage and transport of wire seals

- 1) Store the wire seals at ambient temperature (5°C ~ 35°C) with low humidity, and do not expose them to direct sunlight.
- 2) Put the parts in a plastic bag to prevent foreign substances from attaching to them.

3. Crimping of terminal

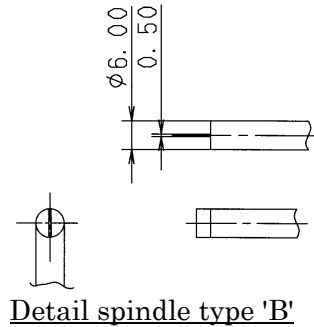
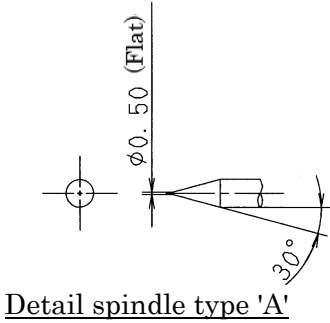
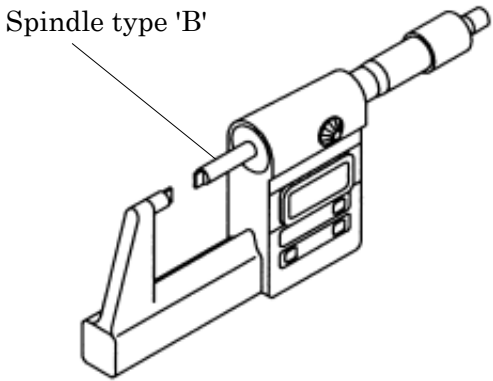
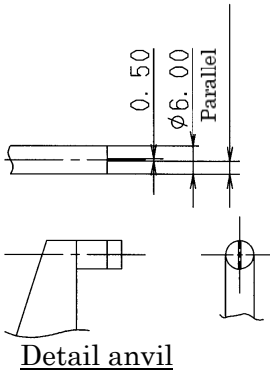
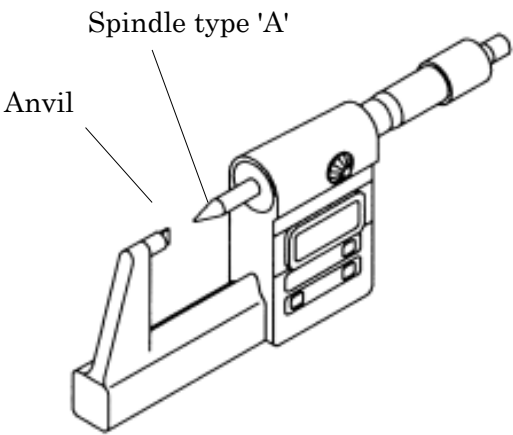
3-1. Crimping standard

- 1) Please ask our Sales representative for the crimping standards.
- 2) Crimping must be done satisfying all required crimping parameters. If any of the crimp parameters is out of specification, designed pull-out force and/or electrical performance (resistance) will not be achieved and the part will not function sufficiently.

3-2. Crimp height and crimp width, measurement device and method

3-2-1. Measurement device

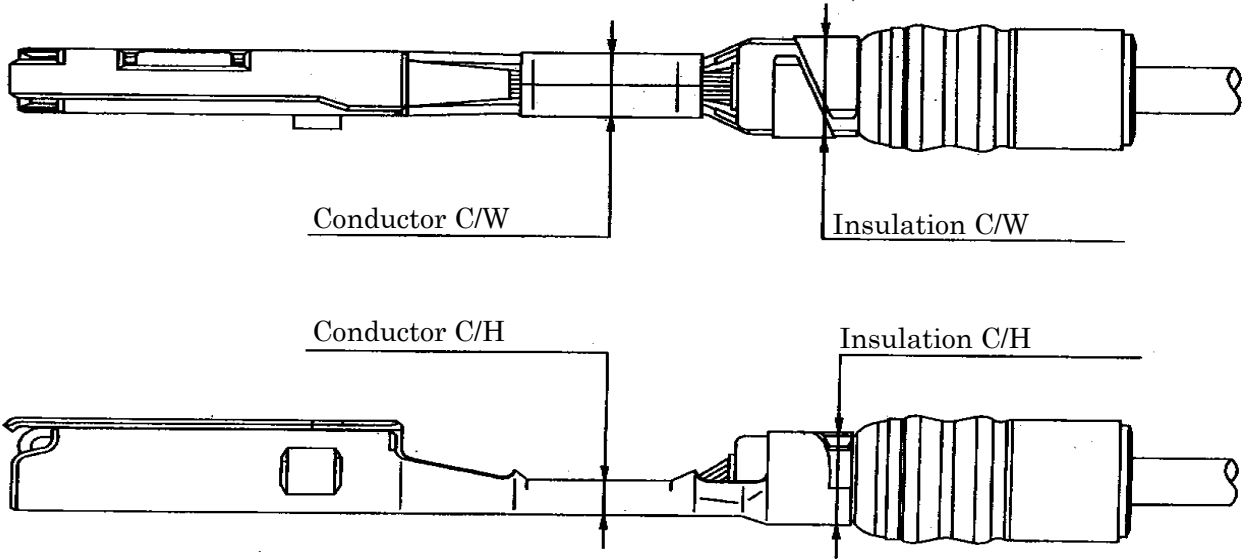
- 1) Use a micrometer to measure the crimp height (C/H) and crimp width (C/W).
- 2) For the micrometer, use the anvil and spindle type mentioned below.
- 3) Securely fix the micrometer in a stand to measure the dimensions.



Measurement	Type to be used
Conductor crimp height	Spindle type 'A'
Conductor crimp width	Spindle type 'B'
Insulation crimp height	
Insulation crimp width	

3-2-2. Measurement method

Crimp height (C/H) ... Height of the crimped portion
Crimp width (C/W) ... Width of the crimped portion



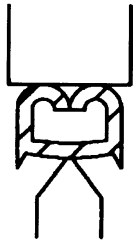
For the conductor C/H, please use the 2-point measurement method (see below).

<2-point measurement method>

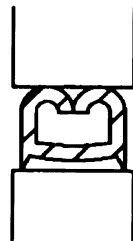
(1) Measure the C/H

(2) Measure the burr height

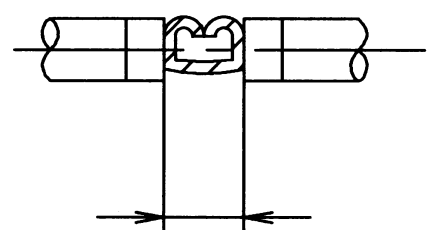
C/W measurement method



Spindle type A



Spindle type B

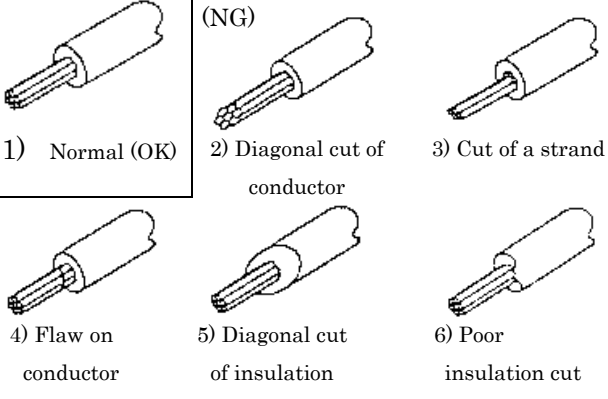
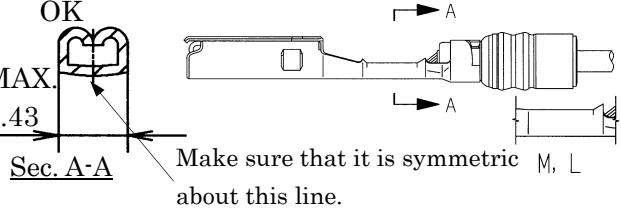
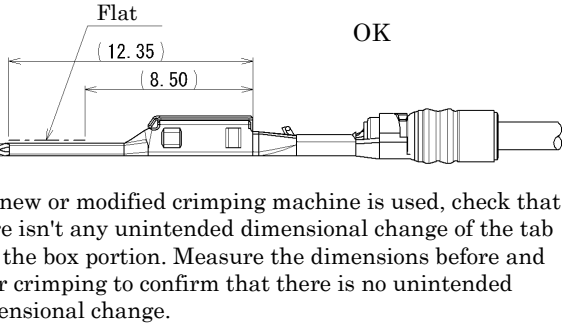
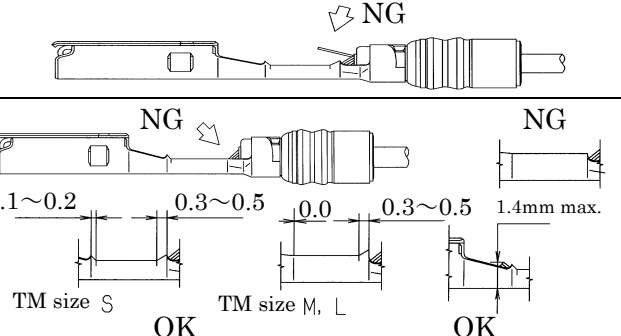
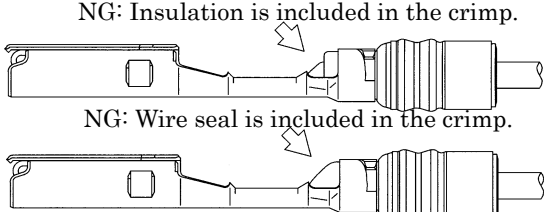


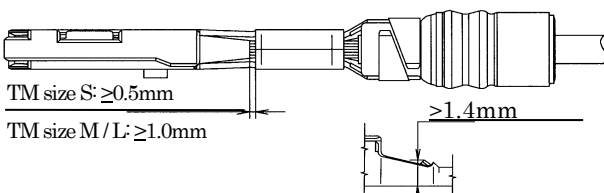
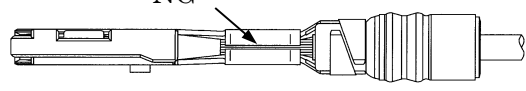

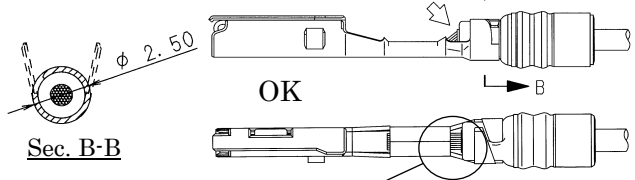
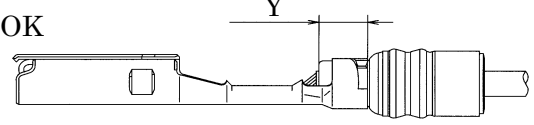
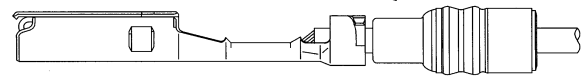
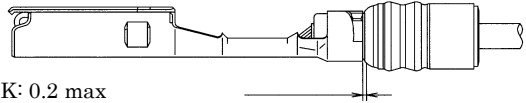
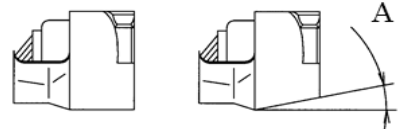
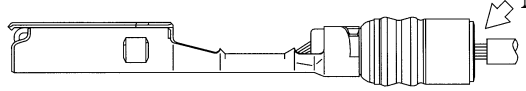
Requirement

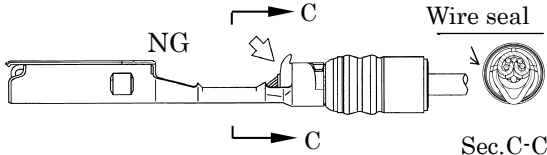
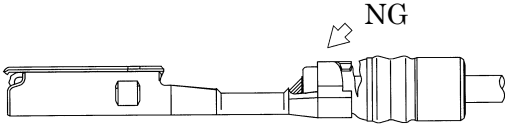
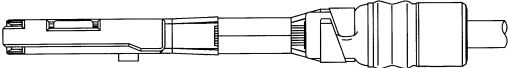
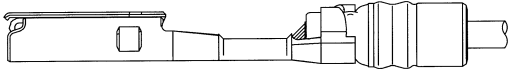
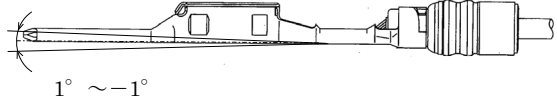
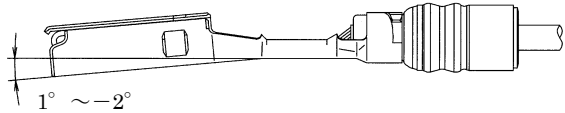
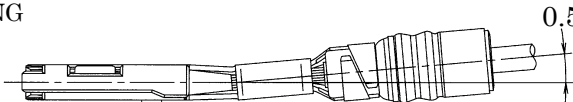
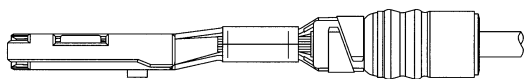
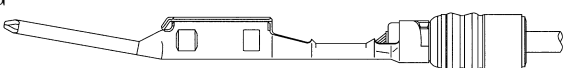
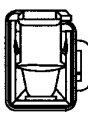

Dimension (2) must be equal to or smaller than the dimension (1).

3-3. Precautions for crimping and points to be checked

- 1) Crimp the wire as early as possible after the insulation is removed from the wire.
Avoid moving or storing the stripped wires as the conductor strands can ravel easily.
- 2) Do not use deformed or damaged terminal. Do not fix it manually.
- 3) Assemble the crimped terminal in housing as early as possible or use a clean plastic bag for the terminals to protect them from damage or contamination.
- 4) Attach the wire seal before stripping the insulation.
- 5) Following checks must be made before, during and/or after crimping:

Parts	Points to be checked	Acceptance criteria
1. Stripping of wire insulation	<ol style="list-style-type: none"> 1) Normal 2) Diagonal conductor cut 3) Cut of strand 4) Flaw on conductor 5) Diagonal insulation cut 6) Poor, uneven insulation cut <p>2) ~ 6) are defects.</p>	 <p>1) Normal (OK) 2) Diagonal cut of conductor (NG) 3) Cut of a strand (NG)</p> <p>4) Flaw on conductor (NG) 5) Diagonal cut of insulation (NG) 6) Poor insulation cut (NG)</p>
2. Crimping	1) Normal	 <p>OK</p> <p>MAX. 1.43</p> <p>Sec. A-A</p> <p>Make sure that it is symmetric about this line.</p>
	2) Free strand	 <p>NG</p> <p>If a new or modified crimping machine is used, check that there isn't any unintended dimensional change of the tab and the box portion. Measure the dimensions before and after crimping to confirm that there is no unintended dimensional change.</p>
	3) Bellmouth	 <p>NG</p> <p>0.1~0.2 0.3~0.5 0.0 0.3~0.5 1.4mm max.</p> <p>TM size S OK TM size M, L OK</p>
	4) Insulation / wire seal included in the conductor crimp	 <p>NG: Insulation is included in the crimp.</p> <p>NG: Wire seal is included in the crimp.</p>

Parts	Points to be checked	Acceptance criteria
2. Crimping	5) Wire brush	<p>Wire brush NG</p>  <p>TM size S: $\geq 0.5\text{mm}$</p> <p>TM size M/L: $\geq 1.0\text{mm}$</p> <p>$\geq 1.4\text{mm}$</p>
	6) Gap	<p>NG</p>  <p>There must be no gap between the conductor crimp wings in which the conductor is exposed.</p>
	7) Burr, twisting	<p>Twisting more than 3° is not acceptable.</p>  <p>(See 3-2-2 for burr measurement method)</p> <p>Burr must not exceed the lowest portion of the crimp</p>
	8) Normal crimp	<p>Insulation and wire seal can be seen.</p>  <p>Sec. B-B</p> <p>OK</p> <p>Make sure that the conductor can be seen here.</p>
	9) Wire seal position	<p>OK</p>  <p>Y</p> <p>Confirm that the insulation barrel is placed within the area Y on the wire seal. Wire seal lips must be free of damage.</p>
	10) Displacement of wire seal	<p>NG</p>  <p>Confirm that the wire seal is not displaced.</p>
	11) Cut-off tab length	 <p>OK: 0.2 max</p> <p>Wire seal lips must be free of damage.</p>
	12) Insulation crimp shape after crimping	<p>A Target angle $0^\circ \sim 3^\circ$</p>  <p>Recommended shape</p>
	13) Displacement of wire insulation	 <p>NG</p>

Parts	Points to be checked	Acceptance criteria
2. Crimping	14) Opening of wire seal	 <p>Confirm that the wire seal is not opened and there is no gap between insulation and wire seal.</p>
	15) Cut wire seal	
	16) Wire seal crimp shape	<p>Top view</p>  <p>Side view</p>  <p>If the tip of the insulation crimp wing cuts into the wire seal, insert and remove the terminal 5 times. If it satisfies the “cut wire seal” requirement (2-15) and it is not displaced after it, it is acceptable.</p>
3. Deformation of terminal due to crimping	1) Bend up / down	<p>Male: OK</p>  <p>Female: OK</p> 
	2) Bend left / right	<p>NG</p>  <p>Deformation which can be seen with naked eyes is not allowed.</p>
	3) Failure in terminal feeding	<p>NG</p>  <p>Deformation which can be seen with naked eyes is not allowed.</p>
	4) Deformation of male tab	<p>NG</p>  <p>Deformation which can be seen with naked eyes is not allowed.</p>
	5) Deformation of box portion / stabilizer of female terminal	  <p>OK (normal) NG</p>

4. Bend up / down check fixture

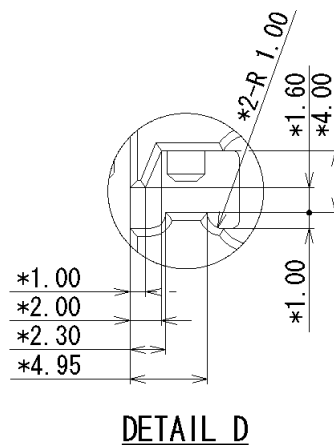
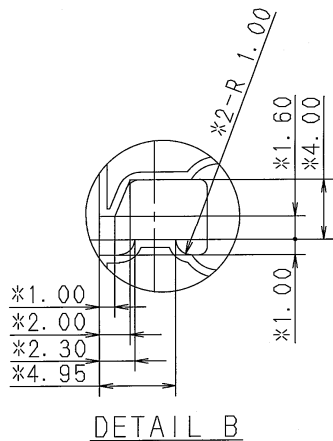
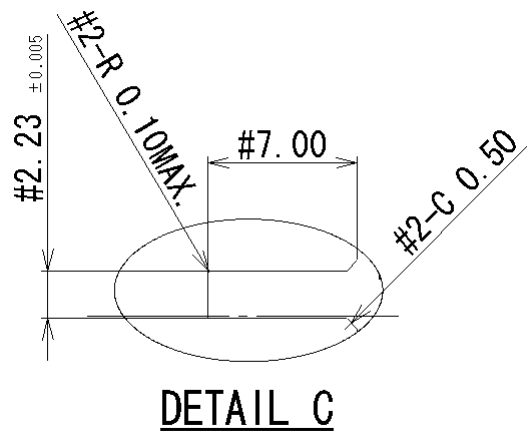
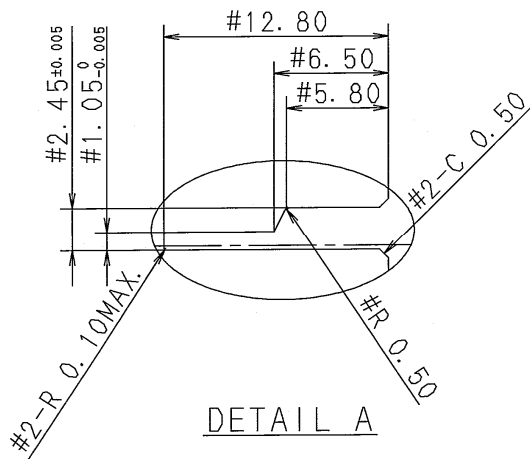
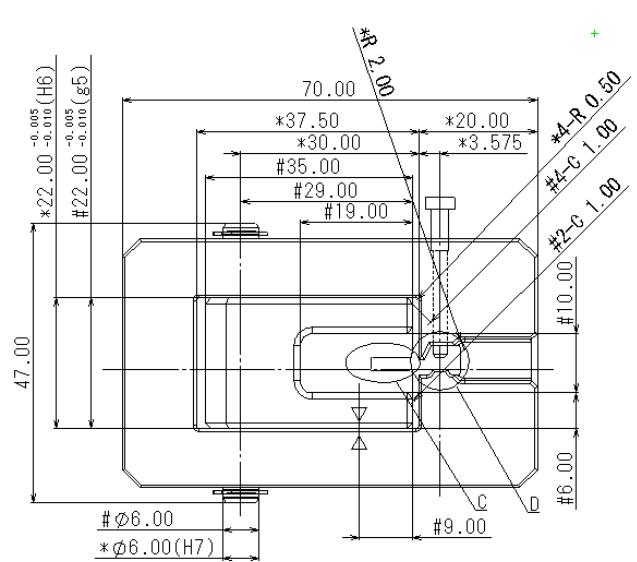
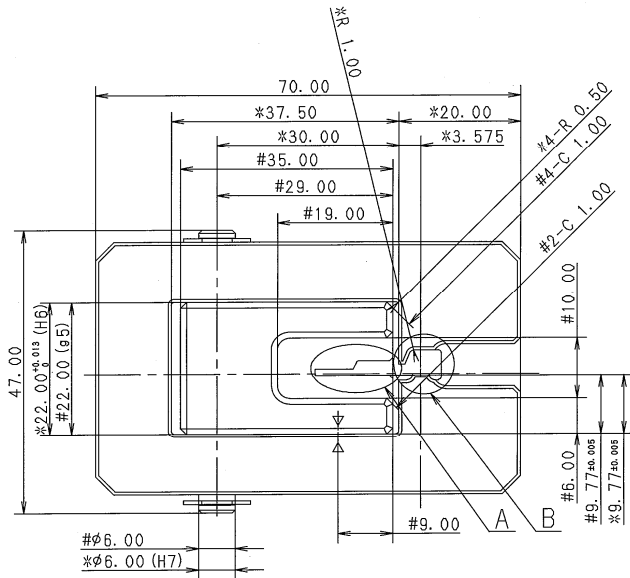
The fixture shown below is designed for the 025 terminal (Terminal part number: 7114-4415-02 ETC., 7116-4415-02 ETC.)

It is a device to check if the bend up / down after crimping is within the acceptable limits. See below drawings for the details. For purchase of the fixture, please ask our sales representative.

1) Bend up / down check fixture

Male: 42GP1400001

Female: 42GP1400002



#: Gauge dimension
*: Main body dimension

[Figure 1]

2) Use instructions

(1) Preparations before checking

1. Rotate the bolt 'E' to adjust the gap dimension 'F' enough to insert the terminal in the gap. (See figure 2. Front view)
2. Move the part 'G' to the position 'a'. (See figure 3. Top view)

(2) Checking

1. Insert the terminal from the side. (See figure 3. Top view)
2. Rotate the bolt 'E' to securely fix the terminal in the fixture.

Then,

A) Make sure that the terminal is in contact with the wall 'H' horizontally. (See figure 4. Front view)

B) Confirm that the conductor crimp is placed at the center of the stage 'T'. (See Figure 4. Front view)

C) Rotate the part 'G' from 'a' to 'b' by its own weight to check if the terminal can pass through the gauge. (See figure 4. Front view)

Make sure to check the bend up / down with this fixture with the first and last parts of each crimp lot.

(3) Loosen the bolt 'E' to remove the terminal from the fixture.

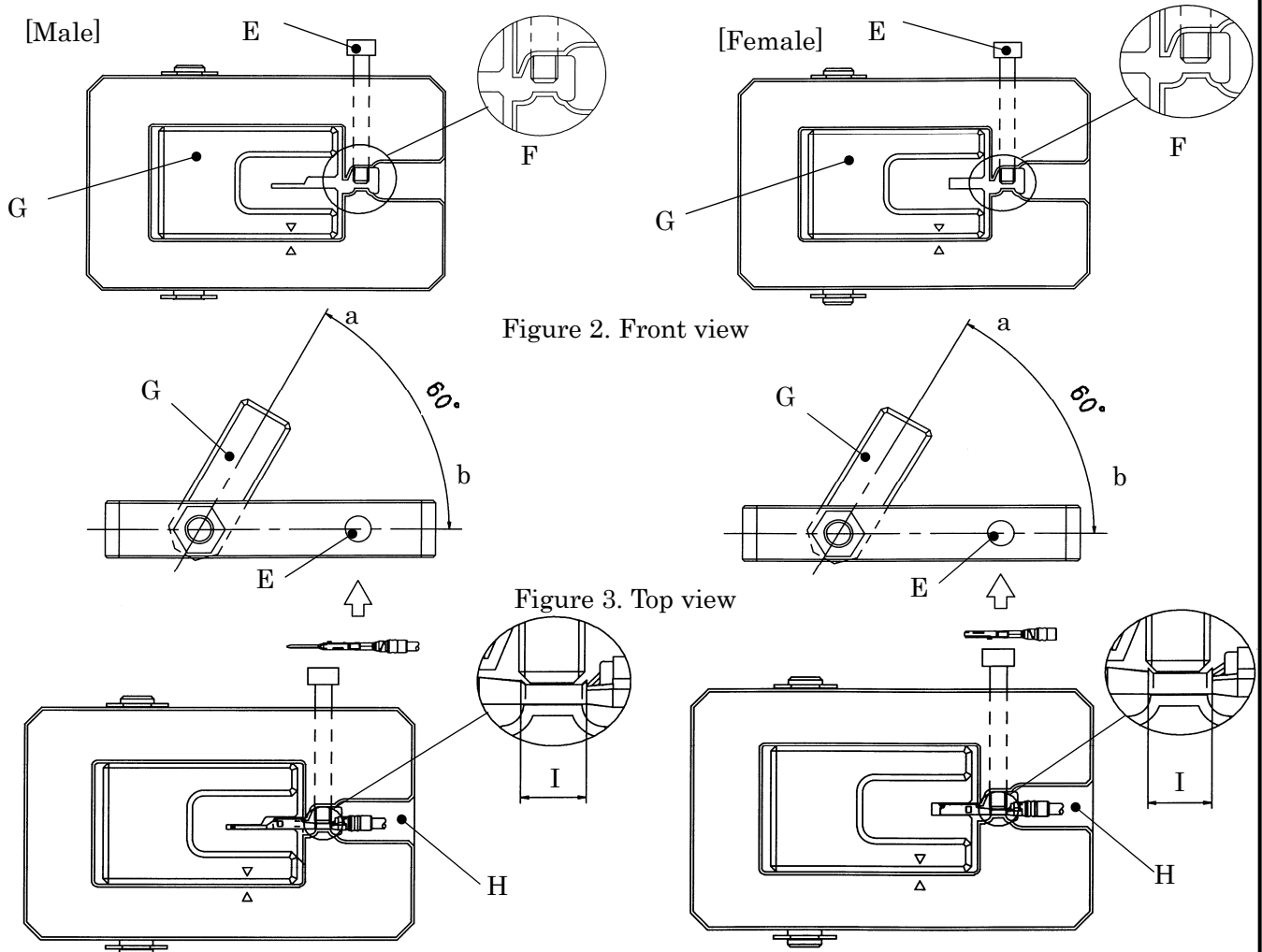


Figure 4. Front view

3) Judgment criteria

When the part 'G' is rotated by its own weight, the gauge hits the terminal: Fail

When the part 'G' is rotated by its own weight, the gauge does not hit the terminal: Pass

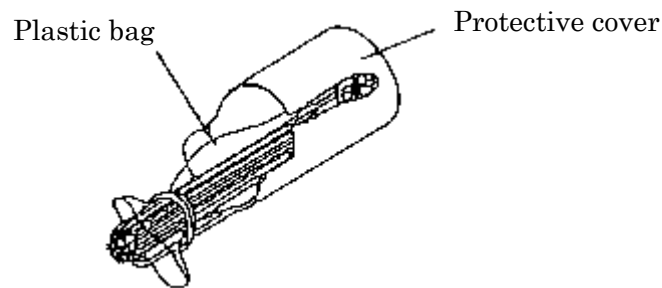
NOTE:

2 types of the check fixture are available: One for male terminal, the other for female terminal

5. Handling of terminated (i.e. crimped) wire

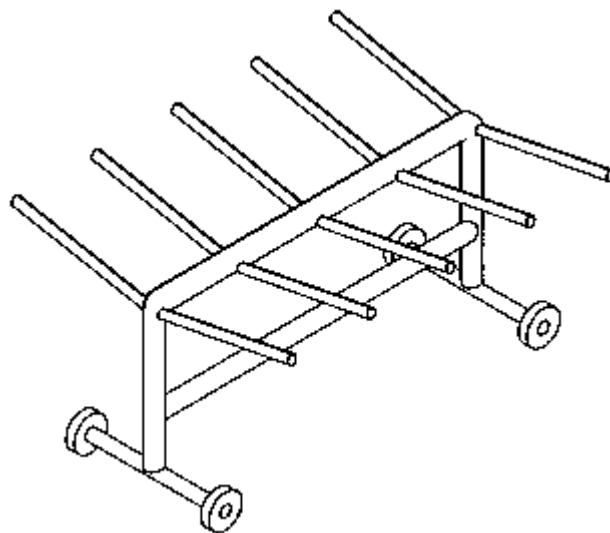
Assemble the terminated wires in the housing as early as possible. Terminated wire can get damaged or deformed easily during transport or storage, so observe the following instructions:

- 1) Bundle the wires together with e.g. a rubber band. The number of wires to be bundled together should be less than 50. If more wires are bundled together, deformation or damages may occur due to the weight of their own or terminated wires being entangled with each other. Do not apply force to the terminals during the bundling operation.
- 2) Put the terminated wires in a plastic bag in order to protect them against dust.
- 3) Also use a protective cover over the plastic bag, and do not remove the protective cover and plastic bag until right before the use.
- 4) Put the terminated wires on a wire hanging stand or in a container with a lid for transport. Do not stack the terminated wires.
- 5) Do not throw the terminated wires, and handle the parts gently.

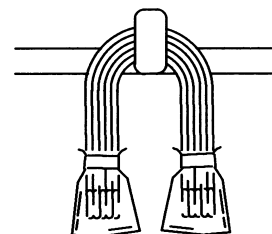


How to store the terminated wires

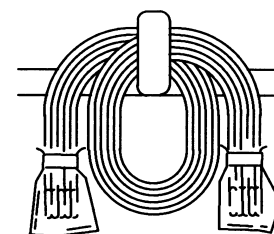
Wires hung on stand



<Wire hanging stand>



<Short wires>

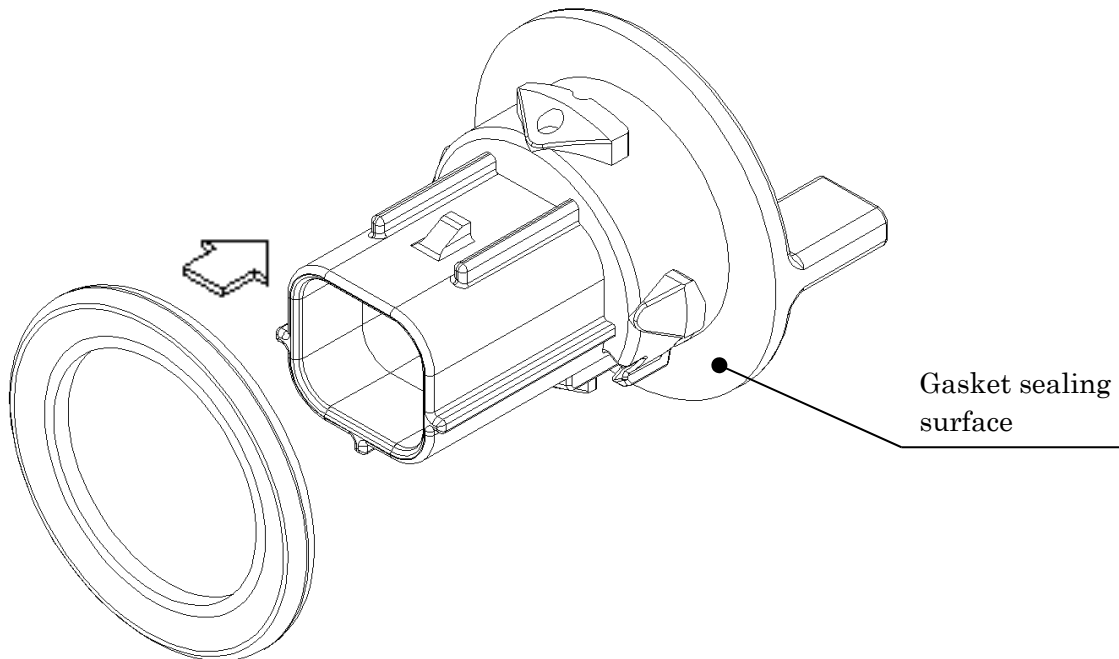


<Long wires>

6. Attachment of gasket

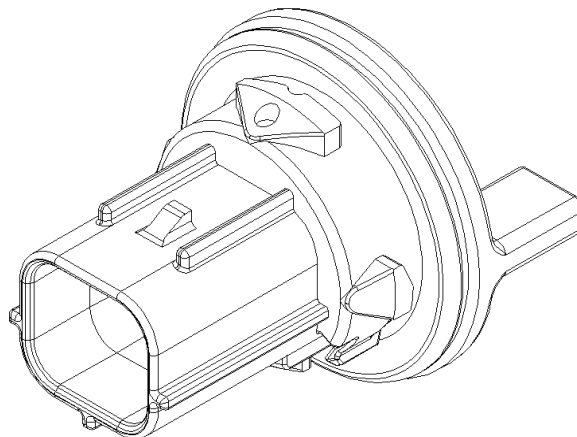
6-1. Gasket attachment direction

- 1) Attach the gasket as shown below.



6-2. Precautions for attachment of gasket

- 1) Confirm that the socket flange gasket sealing surface is free of dust or foreign substances.
All dust or foreign substances must be removed before attaching the gasket.
- 2) Attach the gasket completely as shown below.
- 3) Confirm that the gasket is not being caught on the panel lock.



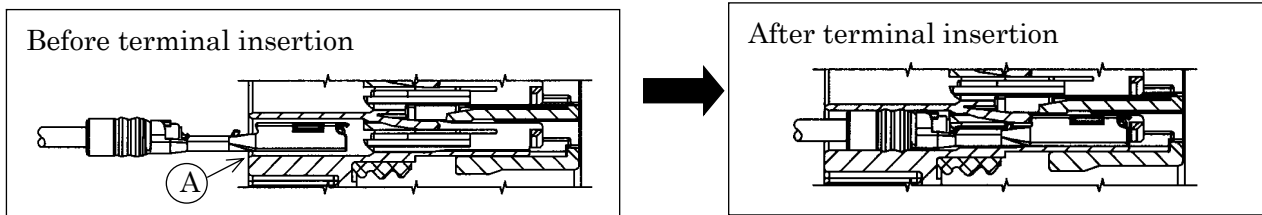
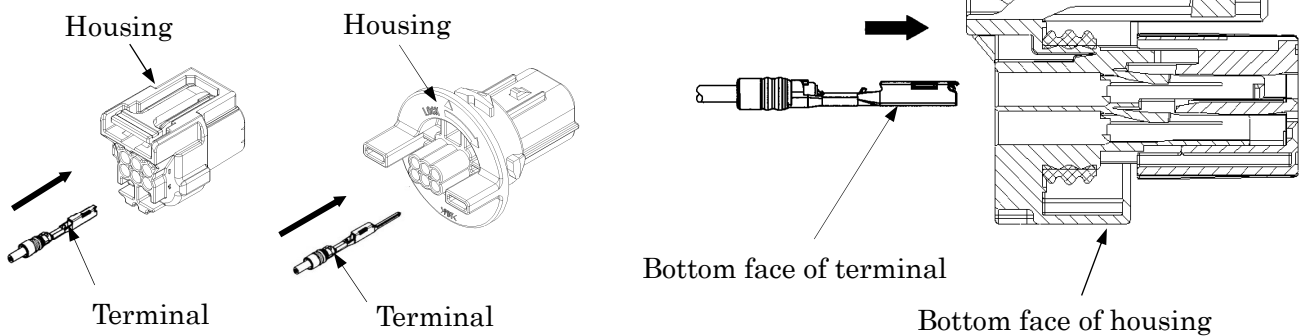
Notes

- Gasket sealing surface must be free of damage / flaw.
- Use the correct gasket.
- Gasket is non-directional, and it can be attached in any direction.
- Even if the gasket is displaced during the delivery, it is acceptable provided that it is still placed between the panel lock and the gasket sealing surface.
- Do not stretch the gasket more than necessary, otherwise it will not revert to the original shape.
- After attaching the gasket, confirm that the gasket is not protruding from the gasket sealing surface.

7. Insertion of terminal and front holder

7-1. Terminal insertion direction

1) Insert the terminal as shown below:



Slide the bottom face of the terminal on the housing wall (A) to insert it.

7-2. Terminal insertion method

- 1) Confirm that the front holder is not seated at the full-lock position. It is at the full-lock position, move it to the pre-set position before inserting the terminal. (See 7-3 for the pre-set position).
- 2) Hold the wire and insert the terminal into the cavity in the correct direction. (See 7-1)
 - See the image above for the correct direction. (See figure 1)
 - During the insertion of the terminal, make sure not to hit the part 'B' (See figure 2) against the housing. (See figure 3)
- 3) Insert the terminal until there is an audible 'click' sound, which denotes that the terminal is properly locked with the lance in the cavity.
 - Also pull the wire lightly to double check that the terminal is locked in the cavity.
- 4) If it is not possible to insert the terminal in the cavity, it may be because the terminal is inserted in a wrong direction. Please check the direction of the terminal to insert it correctly.

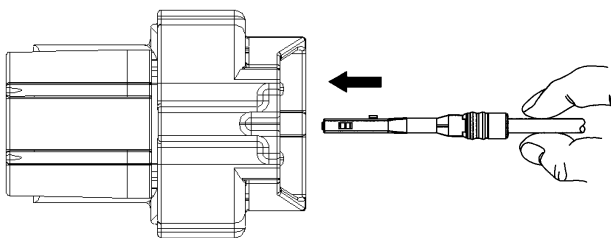


Figure 1

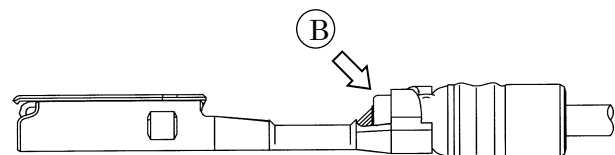
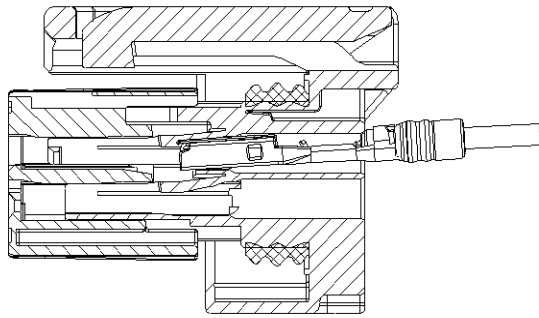


Figure 2

NG:



NG:

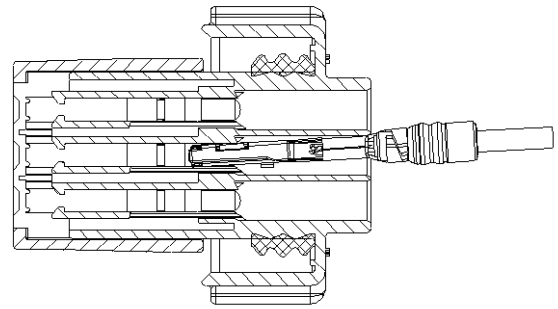
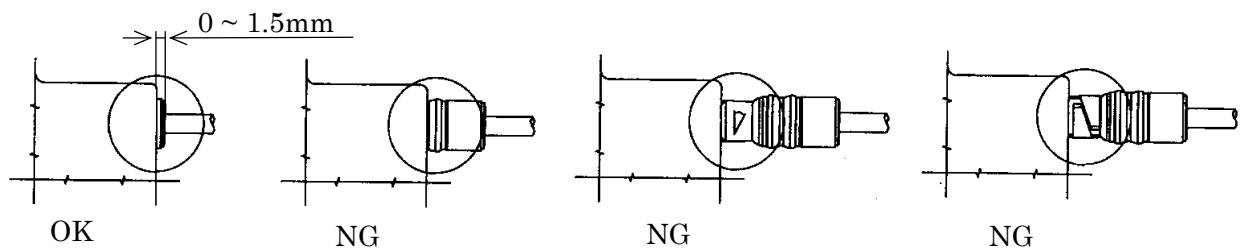
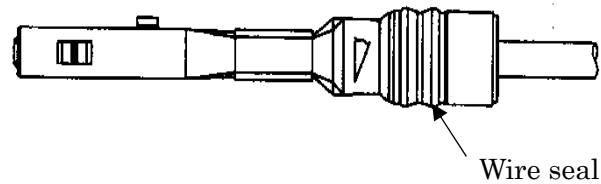



Figure 3

- 5) After completing the steps 1), 2), and 3), confirm the position of the wire seal. If the lip of the wire seal is exposed, the terminal is still at a halfway position.

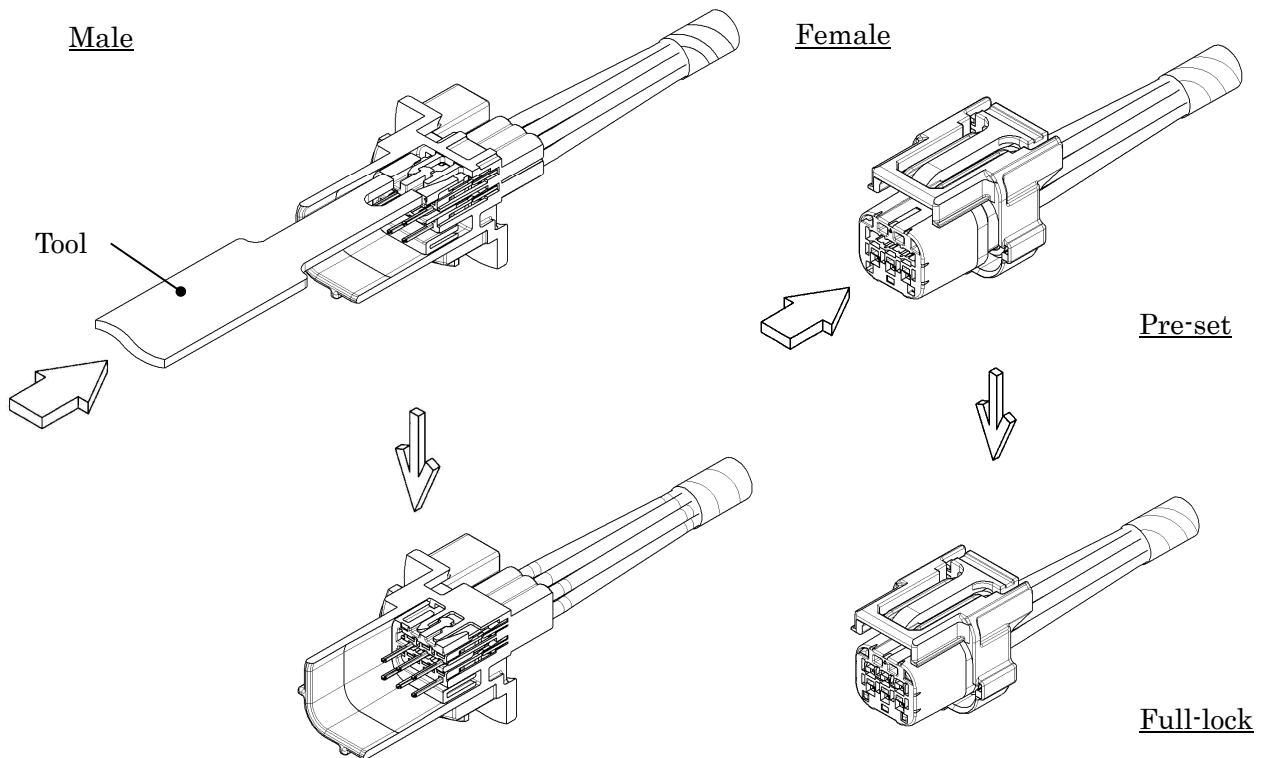


 Notes

- 1) If it is not possible to insert the terminal in the correct direction, it may be due to deformation or breakage of the terminal. So, please check the terminal. (See 3-3)
- 2) Damaged or deformed part must be replaced with a new one.

7-3. Insertion of front holder: Pre-set position to full-lock position

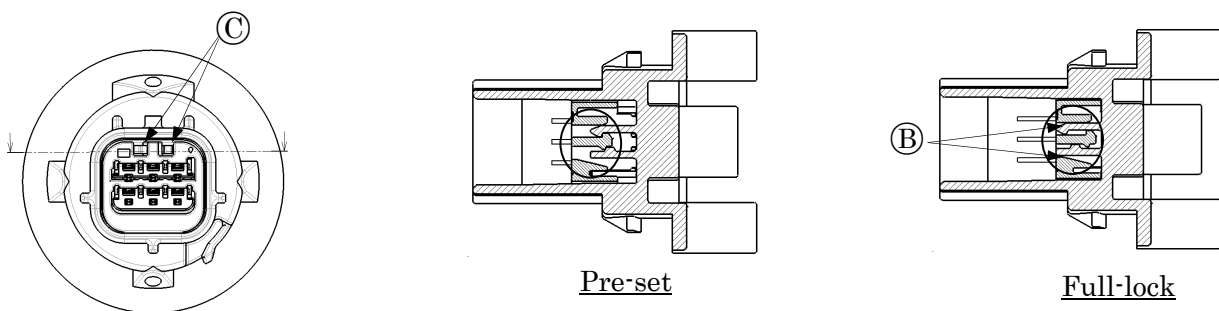
1) Press the front holder to insert it until there is an audible 'click' sound.



Notes

Do not deform the male tab when the front holder is operated on the male housing.

2) Confirm that the front holder is securely locked on the housing.



Confirm that the (B) can be seen in the (C).

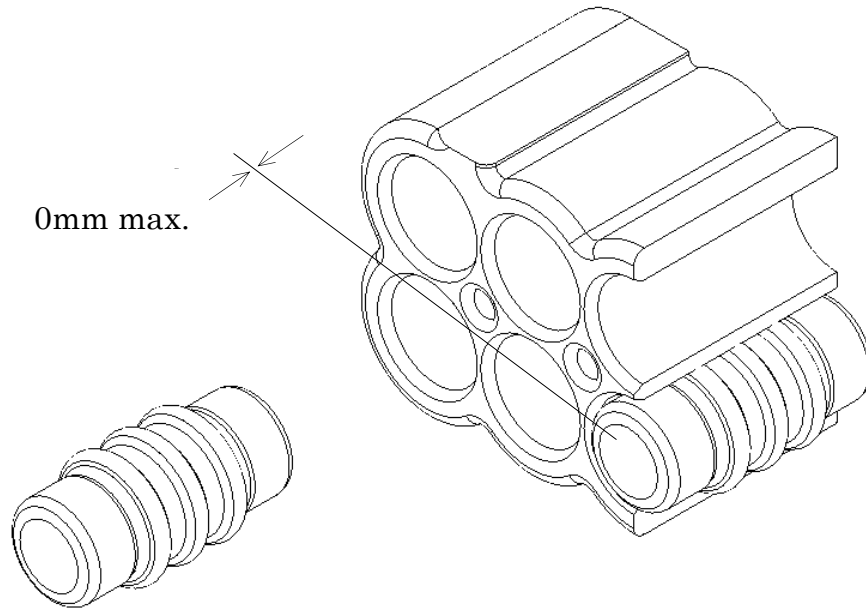


Notes

- 1) If it is not possible to insert the front holder to the full-lock position, it may be because the terminal is inserted halfway or in a wrong direction in the cavity.
- 2) Damaged or deformed part must be replaced with a new one.

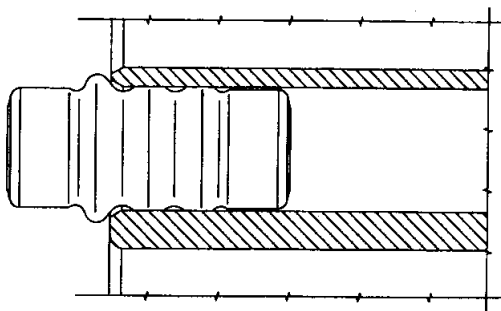
7-4. Insertion of sealing plug

- 1) Insert the sealing plug as shown in the image below.

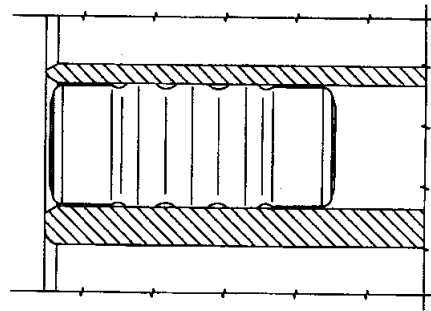


Notes

Confirm that the wire seal is not protruding from the rear face of the connector. Protrusion must be 0mm or less.



NG



OK

7-5. Handling of fully equipped connector

- 1) Store the parts in a clean, dry environment at 5 ~ 35°C, and do not expose them to direct sunlight.
- 2) Use a proper protection for the sealing surface of the female housing in order to prevent contamination or damage.

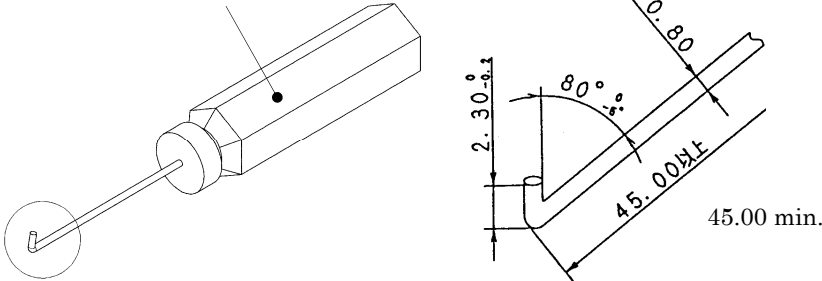
8. Removal of terminal and front holder

For purchase of the tools, please ask our sales representative.

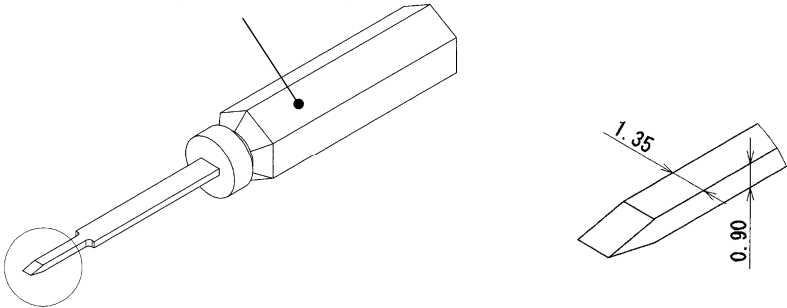
8-1. Front holder removal tool

Use the designated tool (below), and do not use other tools.

Tool: ZF(49YA000064)

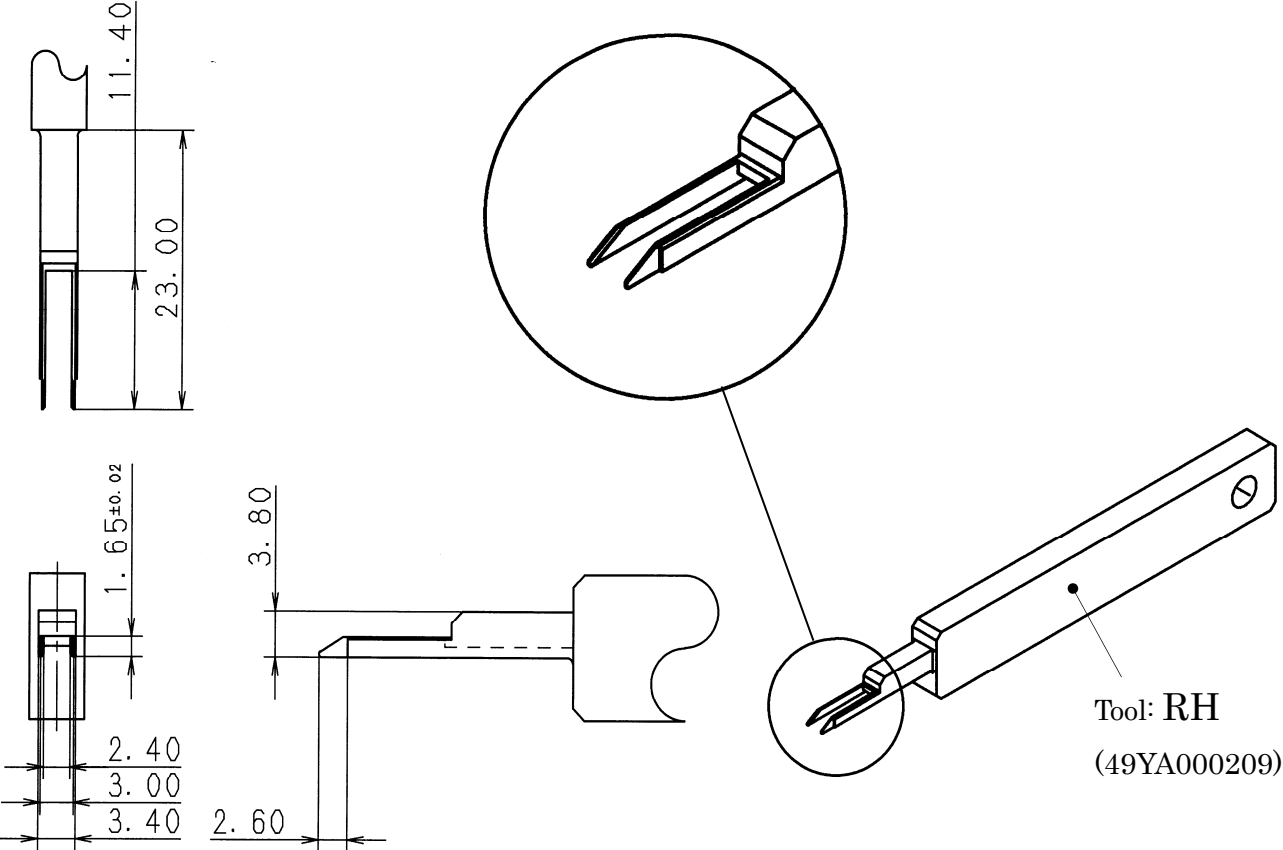


Tool: S(49YA000060)

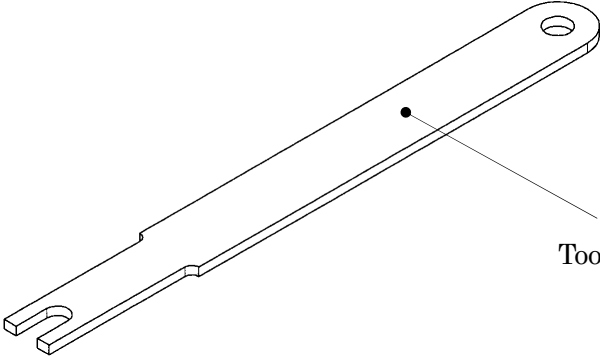


8-2. Terminal removal tool

Use the designated tool (below), and do not use other tools.



8-3. Front holder insertion tool



Tool: 2 lock (49YA000059)

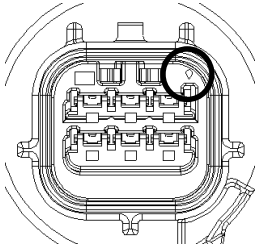
8-4. Removal of front holder: Full-lock position → Pre-set position

Move the tool in the direction of the arrow shown below to move the front holder to the pre-set position. It is also possible to release the front holder on the female connector with a finger.

Where to insert the tool:

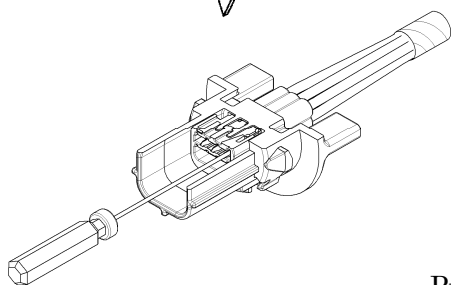
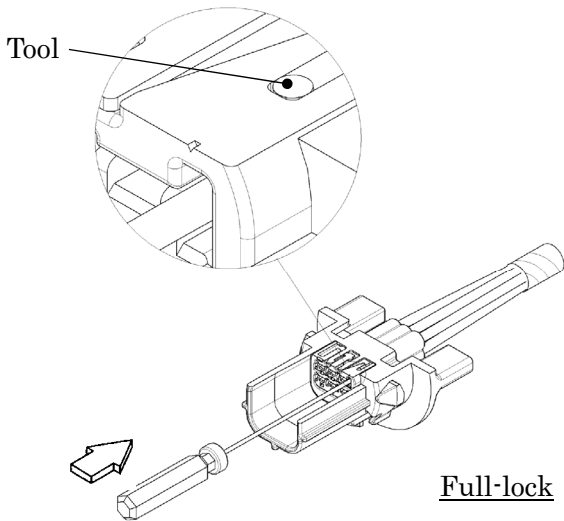
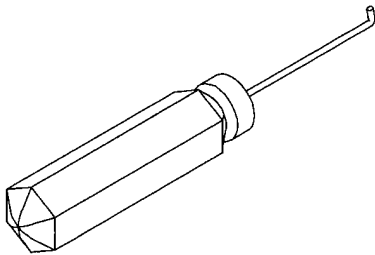
Insert the tool at opening marked with ◊.

Male:

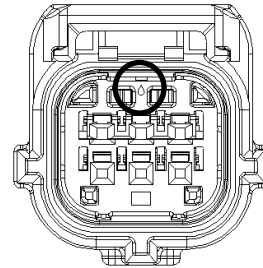


Insertion direction:

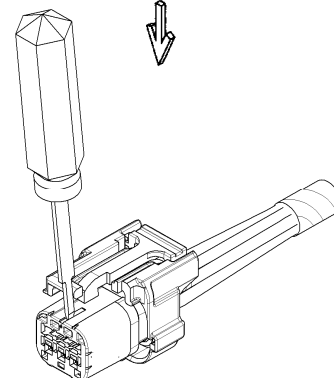
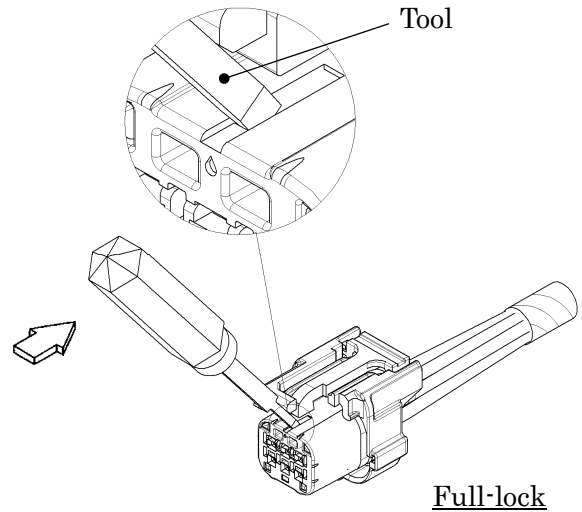
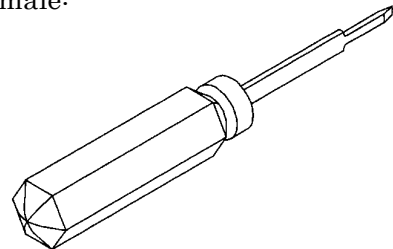
Male:



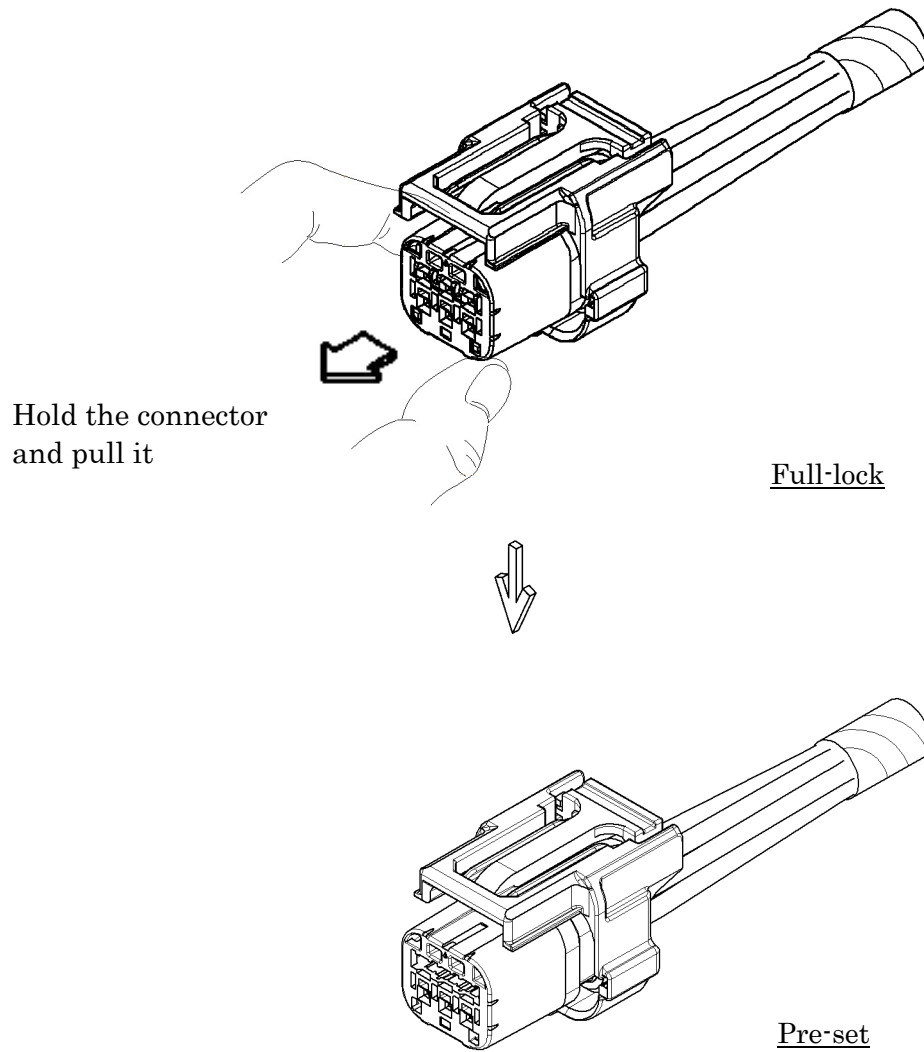
Female:



Female:



If the front holder is released by hands:

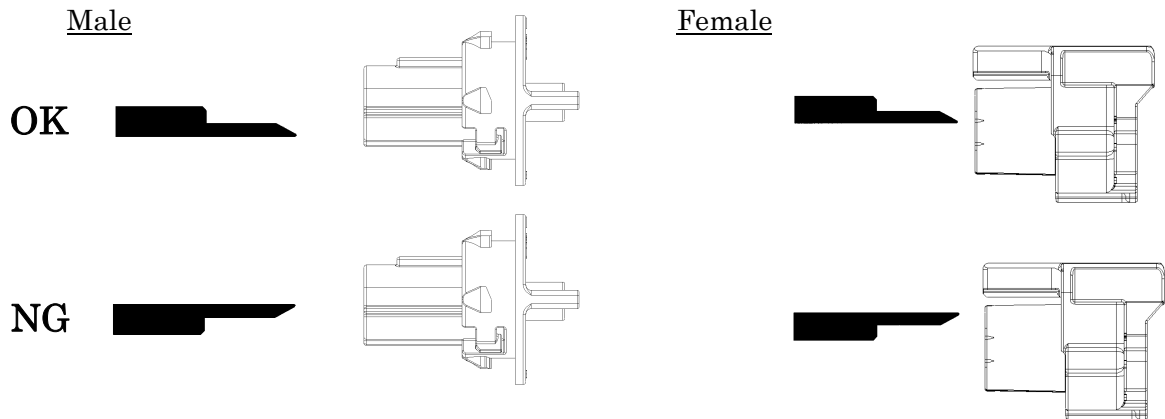


Note

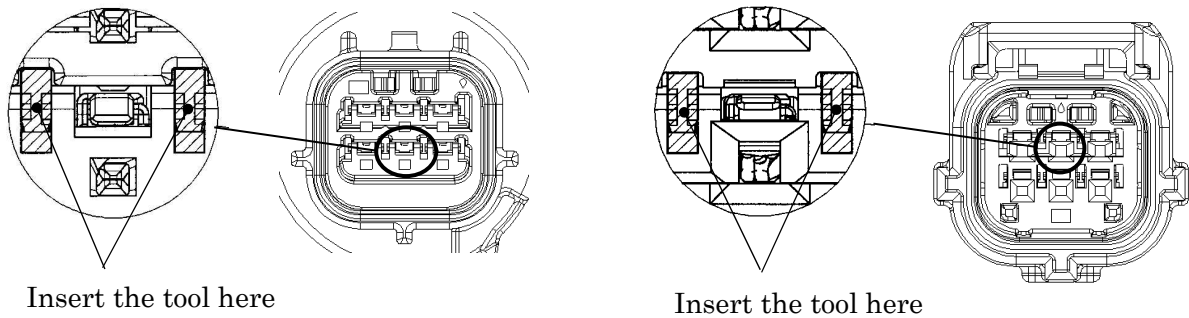
Pull force must be less than 14.7N. If a higher force is applied, the front holder can come off from the female housing.

8-5. Removal of terminal

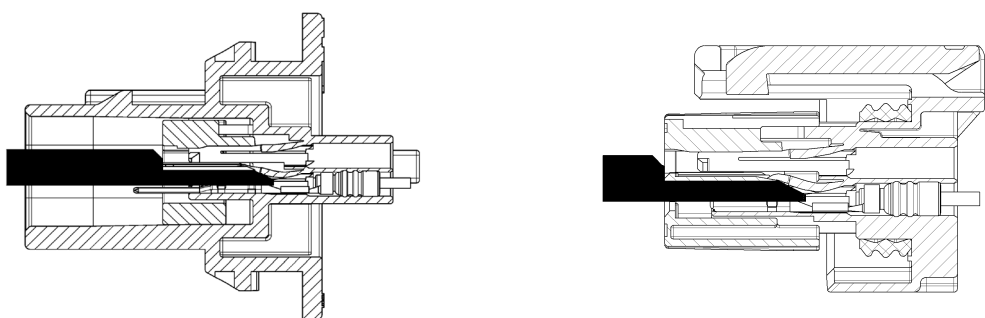
- 1) Confirm that the front holder is at the pre-set position. (See 8-4)
- 2) Confirm that the tool is facing in the correct direction as shown below:
(If the tool is inserted in a wrong direction, it can damage the lance)



- 3) Place the tool in the gap between the terminal and the housing.

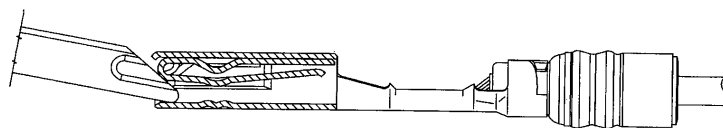


- 4) Insert the tool to release the locking with the lance, and then pull the wire to remove the terminal from the cavity. Make sure not to damage the terminal with the tool.



⚠ Notes

- 1) Damaged or deformed part must be replaced with a new one.
- 2) Do not insert the tool in the terminal box by mistake. (See figure 1)
- 3) If the tool is inserted in the terminal box by mistake, replace the terminal with a new one.



NG

Figure 1

9. Attachment to / removal from panel

9-1-1. Attachment to panel (Beyonet type)

- 1) Orient the connector properly so that it can be inserted in the panel hole. (See figure 1)
- 2) Insert the connector in the panel hole (See figure 2). Hold the ribs with fingers or a jig and rotate the connector in a clockwise direction by 45 degrees to lock it in the panel. Then, confirm that the triangle marks are aligned. (See figure 3)

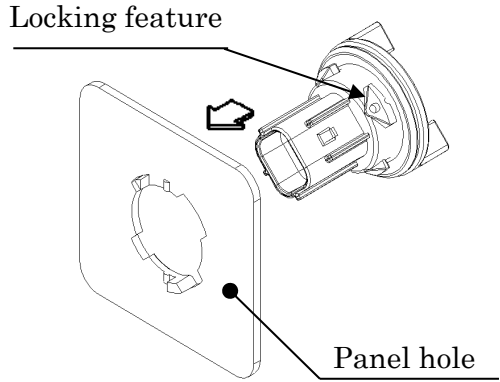


Figure 1. Before attachment

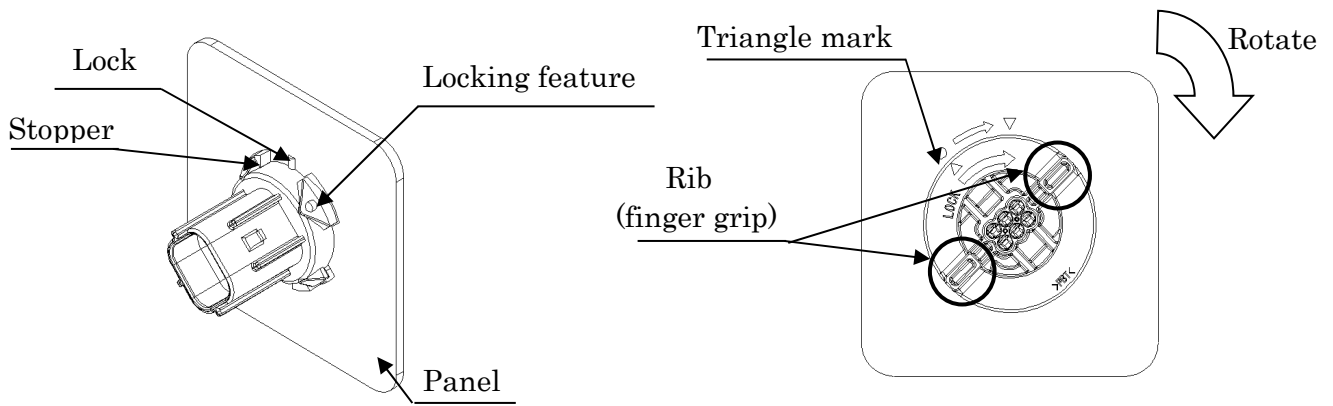


Figure 2. After attachment

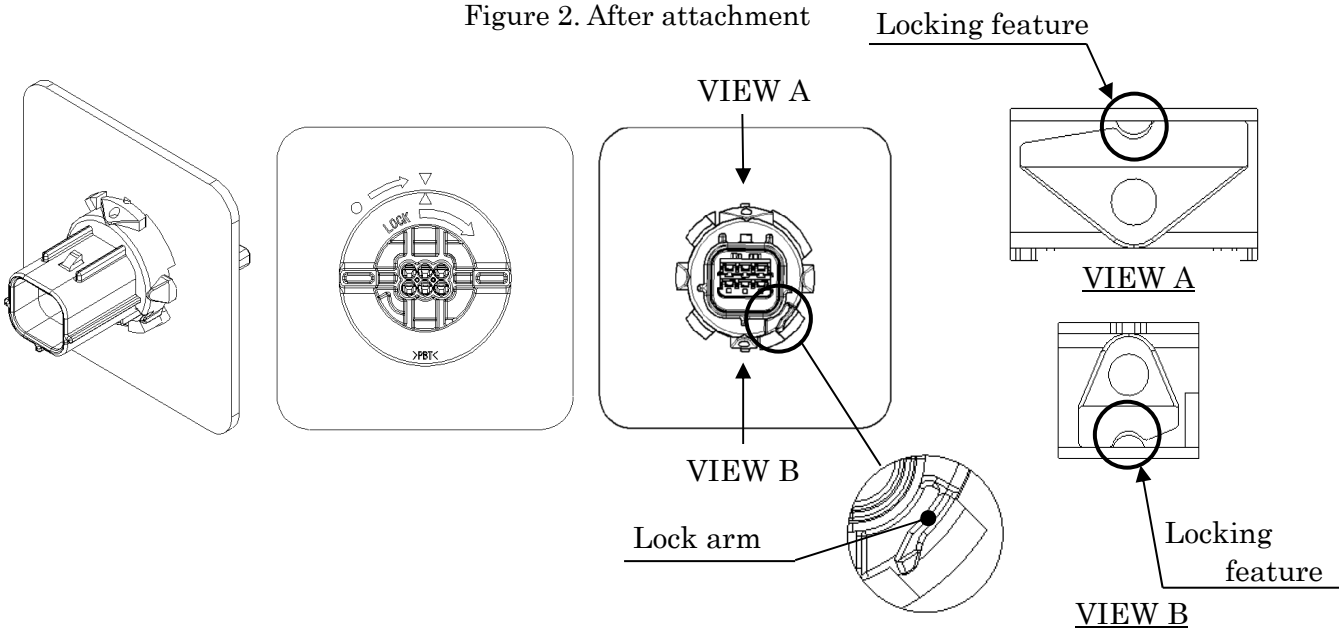


Figure 3. "Locked" condition

9-1-2. Attachment to stay (Through lock type)

- 1) Orient the connector and the stay properly. (See figure 1)
- 2) Insert the connector in the arrow direction (See figure 1) until there is an audible 'click' sound. (See figure 2)
- 3) Pull the connector lightly to double check that the connector is properly attached to the stay.

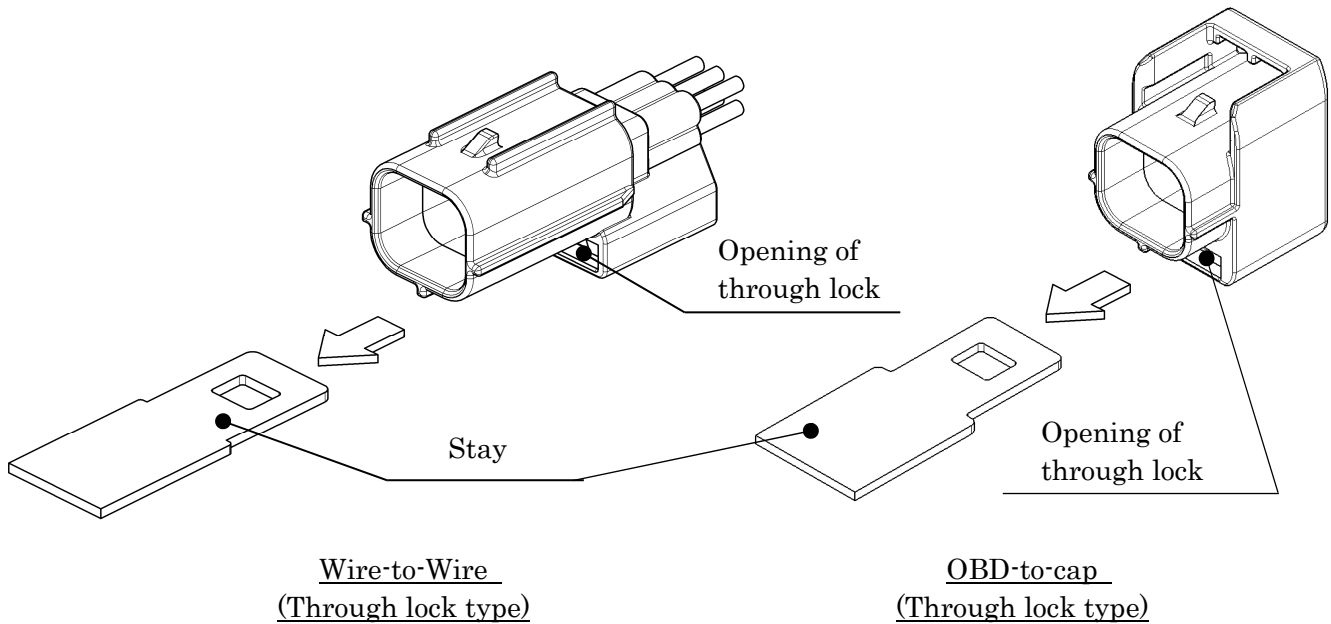


Figure 1. Before attachment

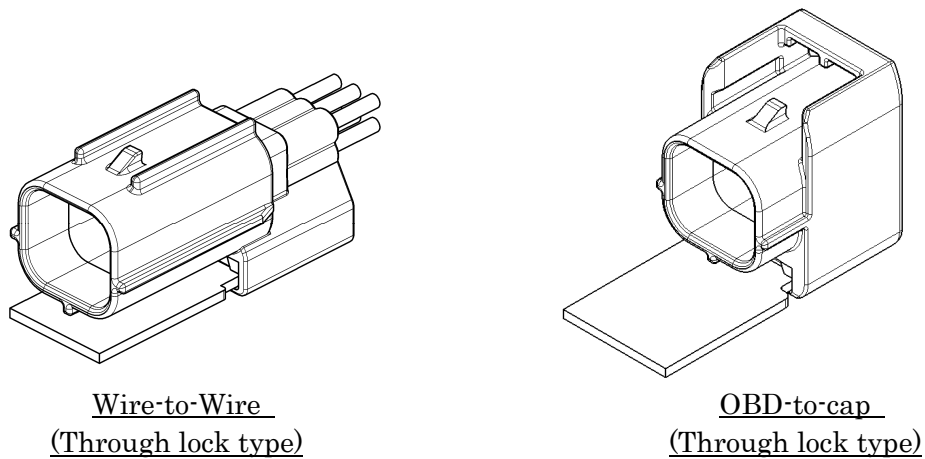


Figure 2. After attachment

⚠ Notes

- 1) Make sure to insert the stay in the opening of the through lock.
- 2) Do not tilt or twist the connector during the insertion.
- 3) Do not apply high force to the connector and/or the wires.

9-2-1. Removal from panel (Bayonet type)

- 1) Pressing the lock arm with a finger, hold the ribs with fingers or a jig to rotate it in a counter-clockwise direction to release the locking. (See Figure 4)
- 2) After releasing the lock (See figure 5), pull the connector to remove it from the panel. (See figure 6)

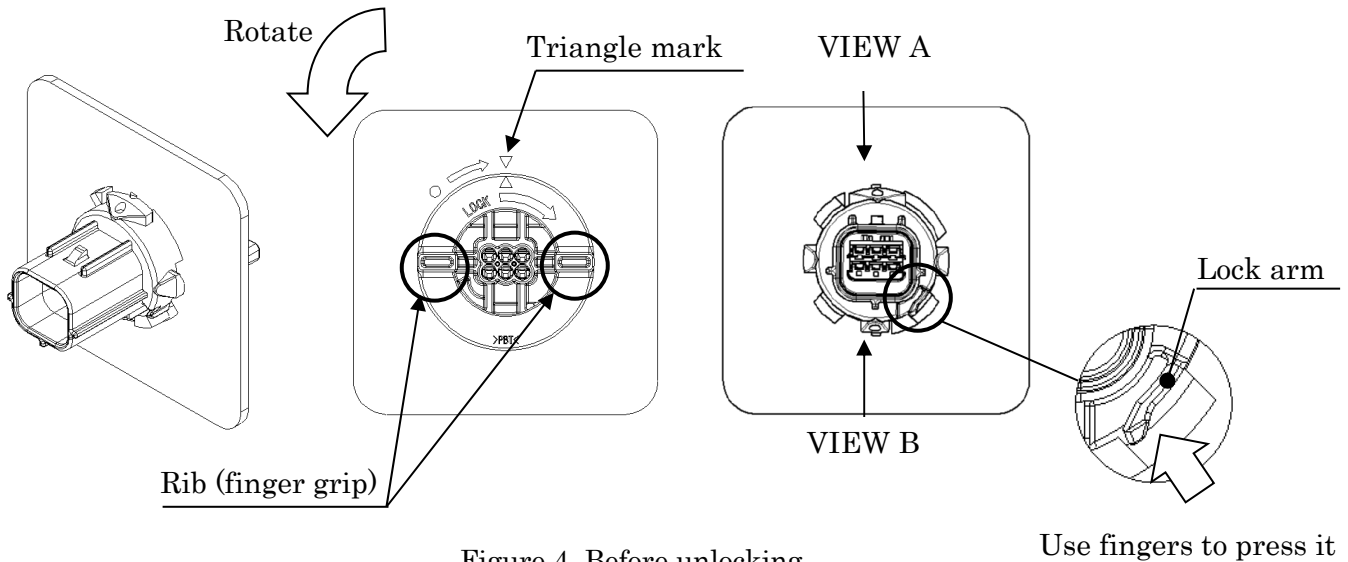


Figure 4. Before unlocking

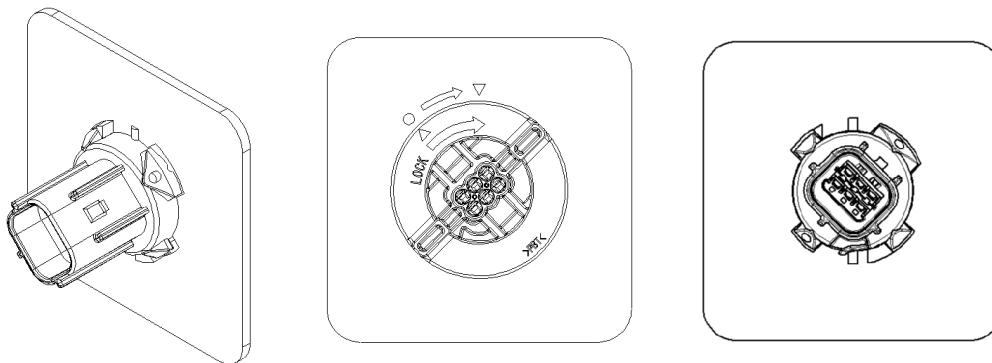


Figure 5. After unlocking

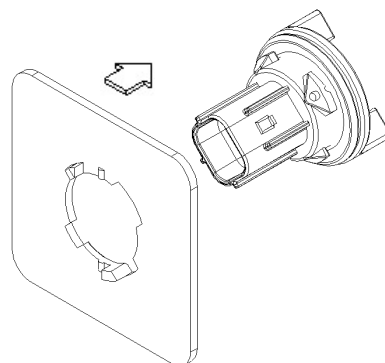


Figure 6. Connector removed from panel



Notes

- 1) For attachment / removal, do not hold the connector shroud for rotating it.
- 2) For attachment, make sure that the locking features are completely engaged.

9-2-2. Removal from stay (Through lock type)

- 1) Use a finger or a jig to move the key upward, in the '1' direction, to release the lock. (See figure 4)
 - 2) With the lock released, pull the connector straight in the '2' direction to remove it from the stay. (See figure 5)
- Note: Do not pull the wires for removal of the connector from the stay.

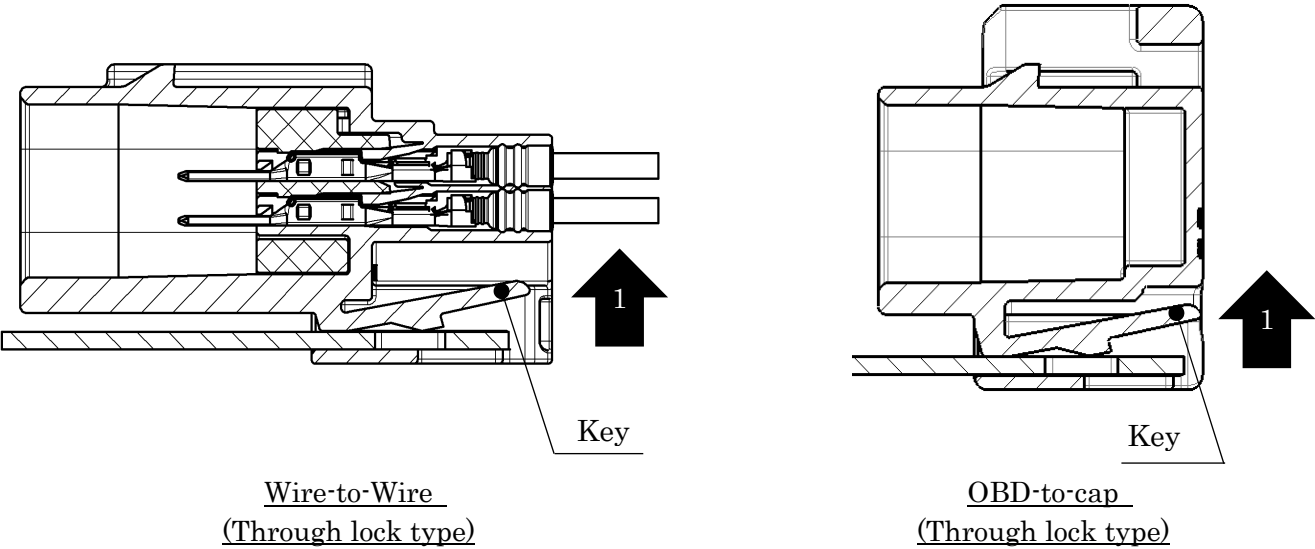


Figure 4. Before unlocking

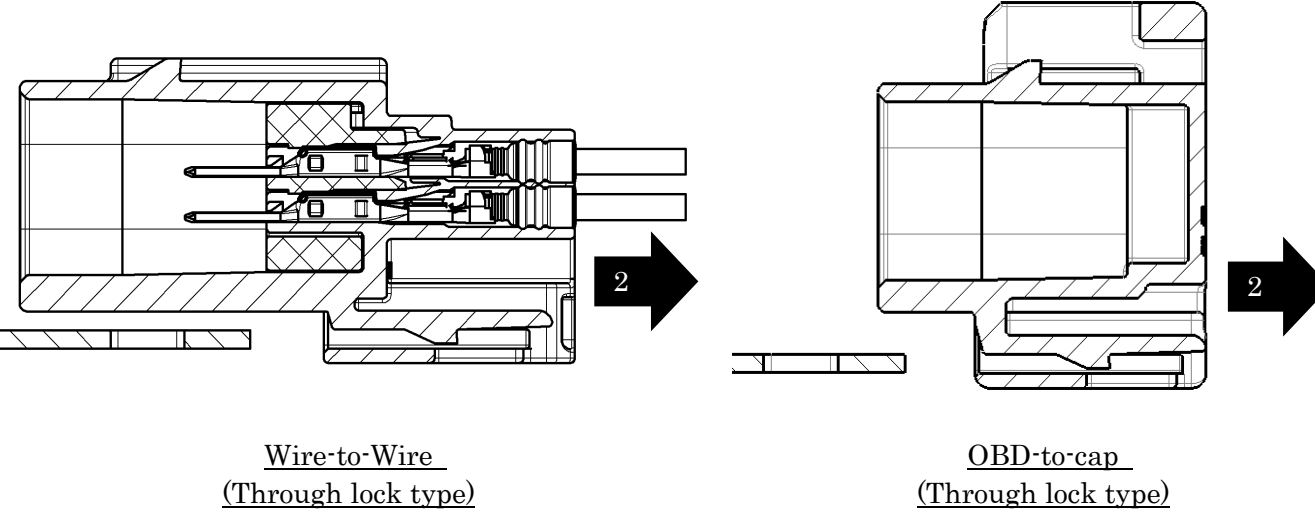
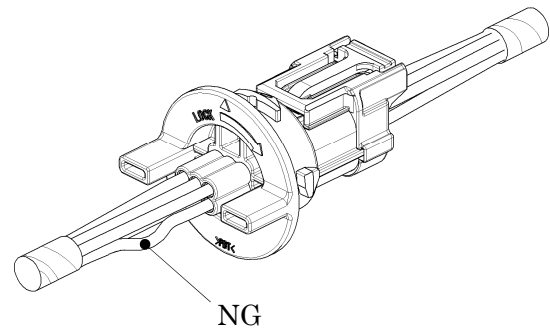
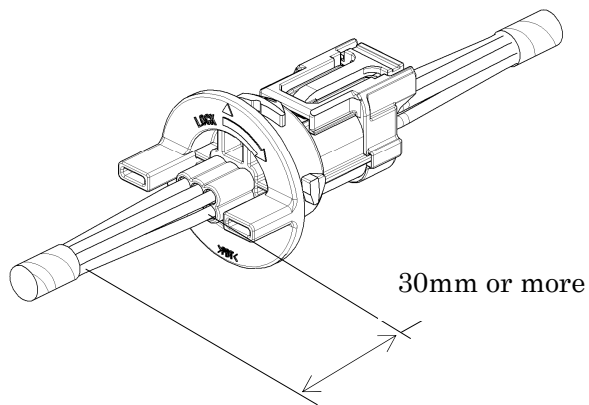


Figure 5. After unlocking

10. Assembly and handling of wire harness

10-1. Assembly of wire harness

- 1) Examine the parts for damage or deformation, and replace a damaged or deformed part with a new one.
- 2) Do not apply strong shock to the parts such as dropping it to the ground.
- 3) Do not pull the wires. Terminal can come off due to the tensile force.
- 4) Do not stretch the wires. Wire can break due to the tensile force.
 - If ultrasonic wave is used to make connection of parts (e.g. terminal and wire), confirm in advance that it does not badly affect other components.
 - Taping must be started at least 30mm away from the rear end of the connector, or the sealing performance can be affected.
- 5) Taping must be done on the wires in such a way that tensile force is evenly distributed among the wires included. If there is a tensioned wire(s), tensile force can concentrate on the specific wire and the terminal be coming off from the cavity.



10-2. Continuity inspection

Use the designated tool to do the inspection as follows:

1) Tester probe

For male connector

Specifications:

- When the displacement of terminal from the correct lock position is 1mm or more, it can detect the halfway insertion.
- Force applied by the spring to the terminal is 1N max.
- End is gold plated.
- See figure 1 for the dimensions of the probe.

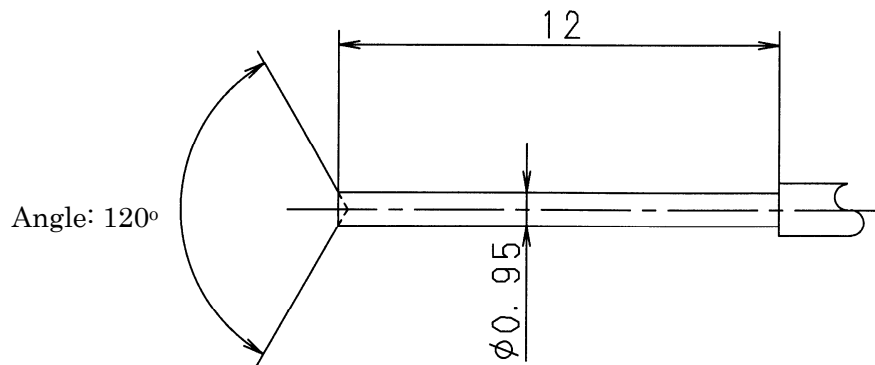


Figure 1. Tester probe for 025-M

For female connector

Specifications:

- When the displacement of terminal from the correct lock position is 1mm or more, it can detect the halfway insertion.
- Force applied by the spring to the terminal is 1N max.
- End is gold plated.
- See figure 2 for the dimensions of the probe.
- Probe must be placed at the position specified in the figure 4.

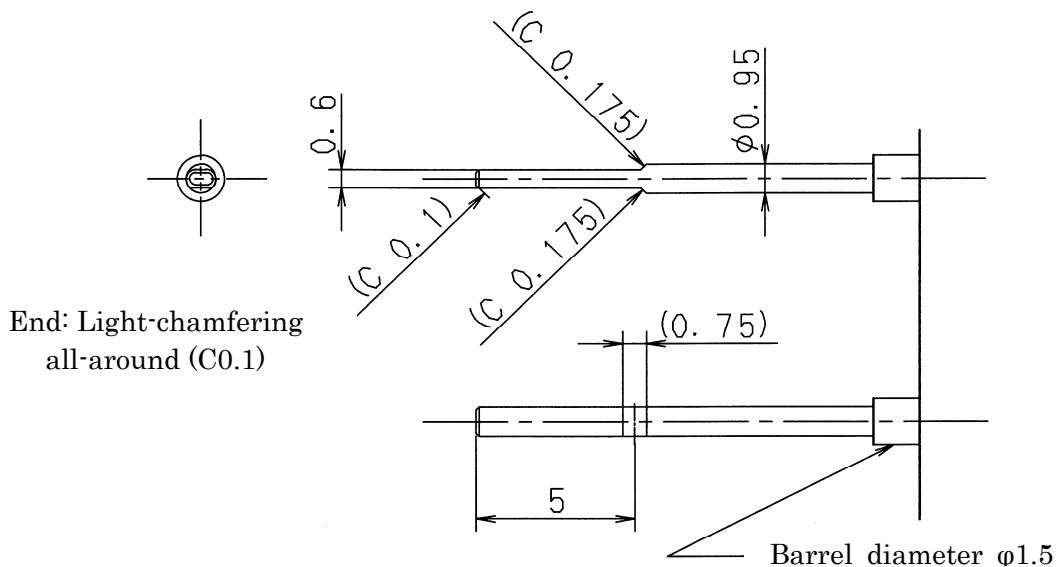


Figure 2. Tester probe for 025-F

2) Continuity inspection method

- (1) Continuity inspection must be done after inserting the front holder to the full-lock position.
- (2) Tools and jigs used for wiring check and continuity check must not damage or deform the terminal or housing.
- (3) Damaged or deformed housing / terminal must be replaced with a new one.

Male connector

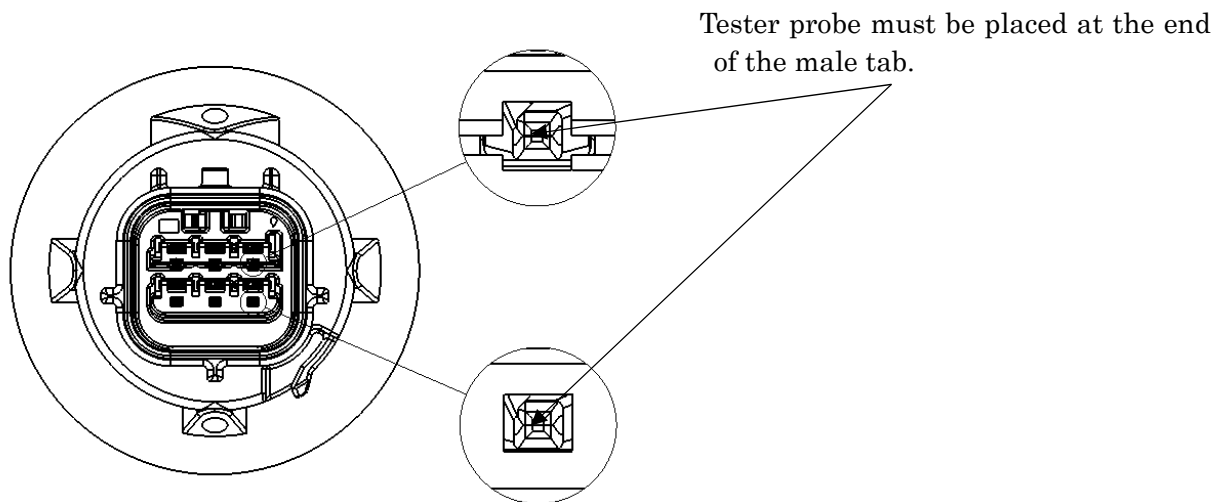


Figure 3

Female connector

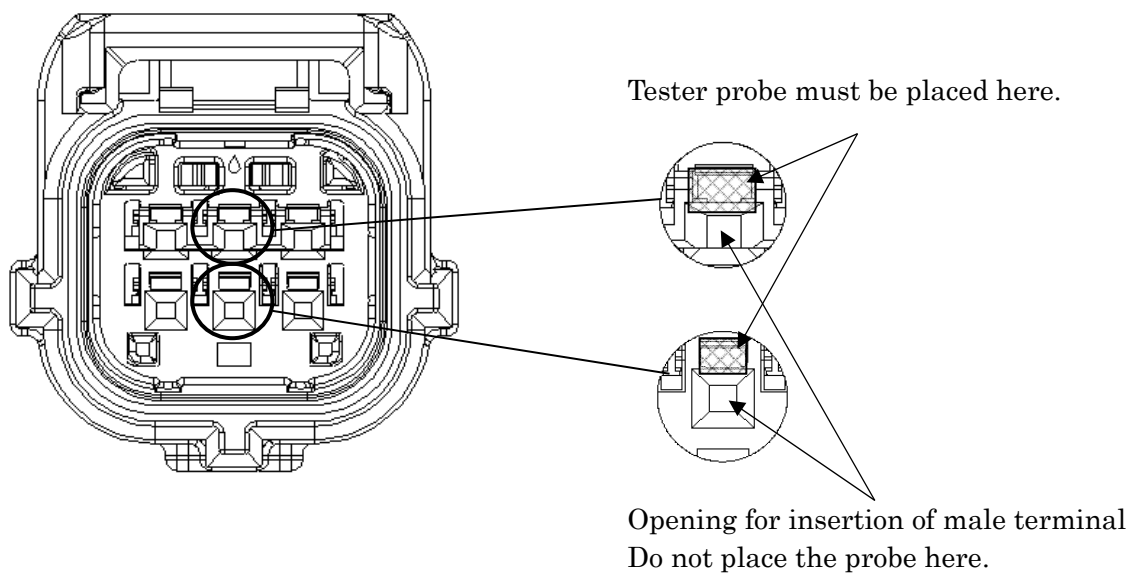
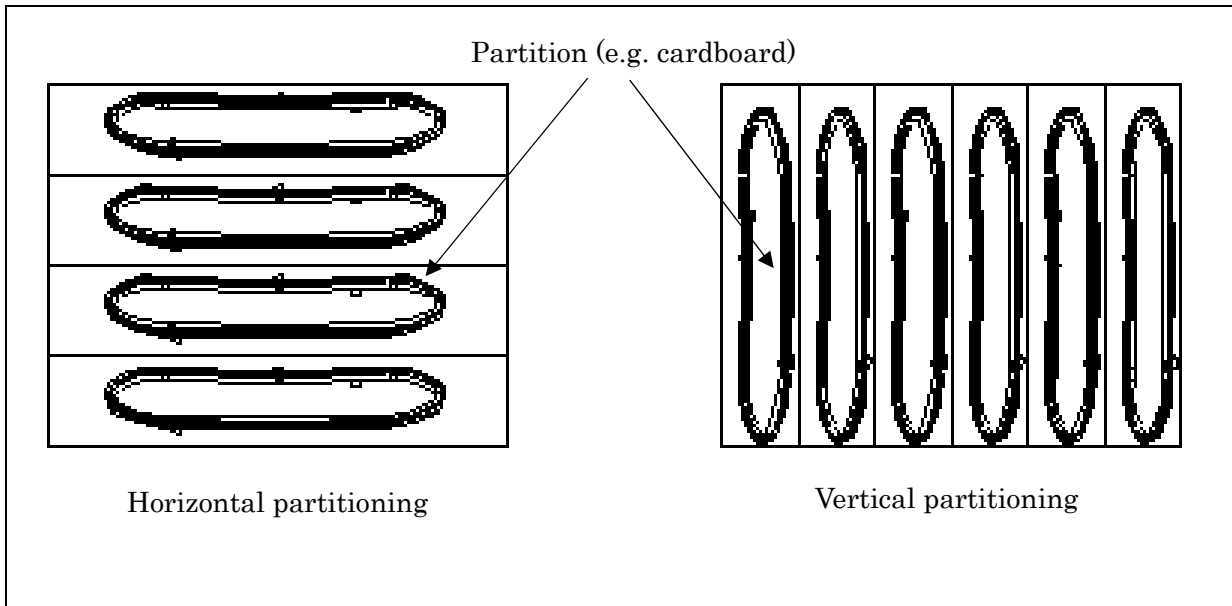


Figure 4

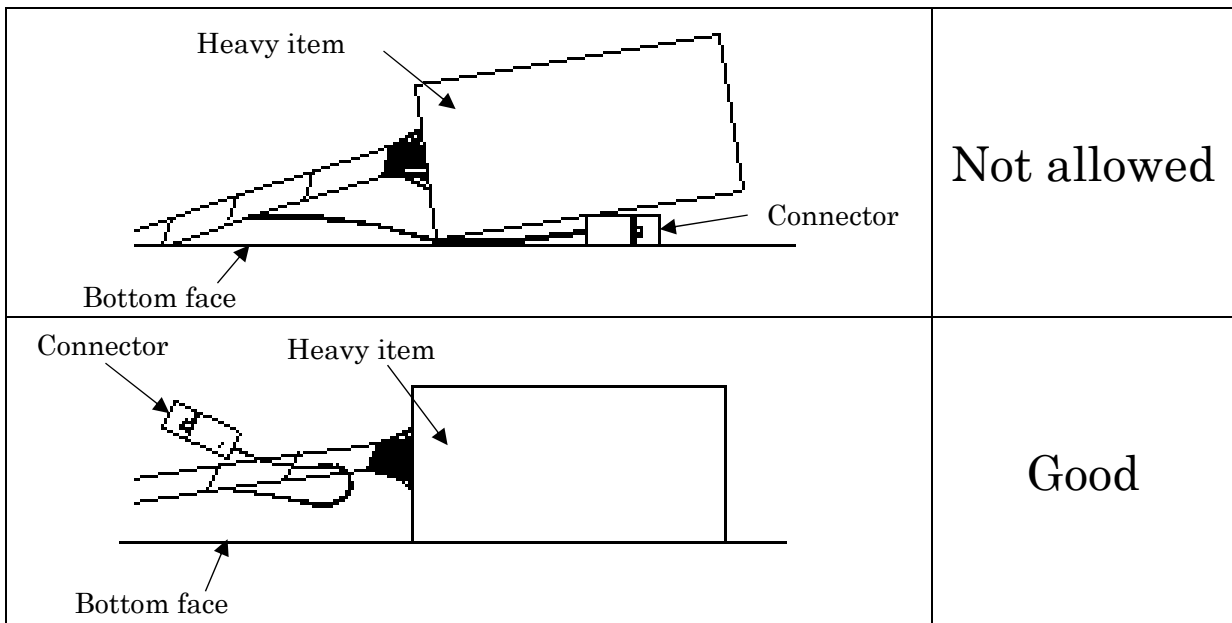
10-3. Precautions for packing of wiring harness

Like many other plastic parts, the connector can get damaged or deformed if external force is applied during e.g. transport or storage. Observe the following instructions in order to prevent such damage or deformation.

- 1) If more than one wire harness are stacked in a box, the connector can get damaged or deformed due to the weight of other wiring harness. Use partitions and/or supports as shown below in order to distribute the load and thus to prevent the deformation or damage.



- 2) Place a junction block, relay box, protector, brackets and other heavy and/or bulky items at the bottom of the box or compartment so that the connector is free from the weight.

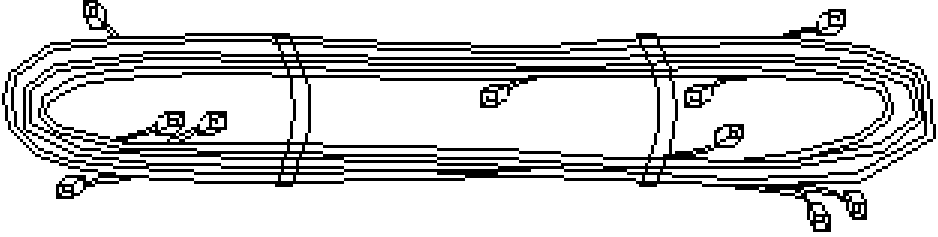


- 3) Place the connectors outside or in the center of wire harness bundle loop to prevent the weight of the wire harness from being applied to them.

Position of connectors in a box

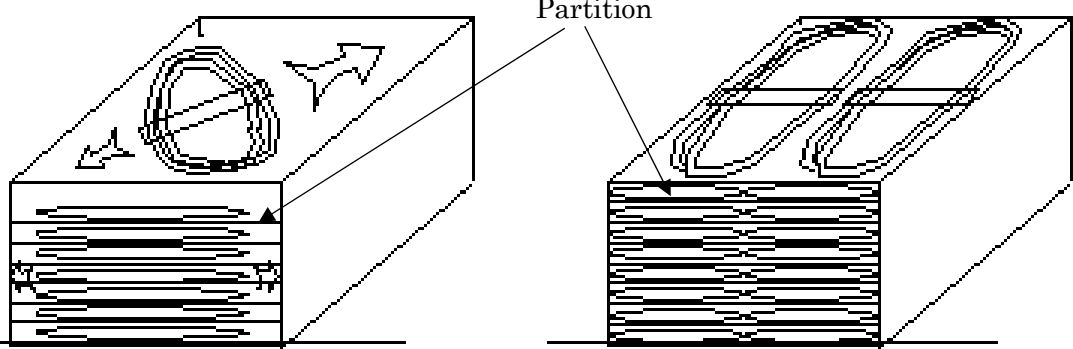
Do not place the connectors in or below the wire harness to prevent the weight of W/H from being applied to the connectors.

Good



- 4) Bundle the wire harness in a size which fits the size of a box so that the wire harness does not move inside the box during transport or storage.

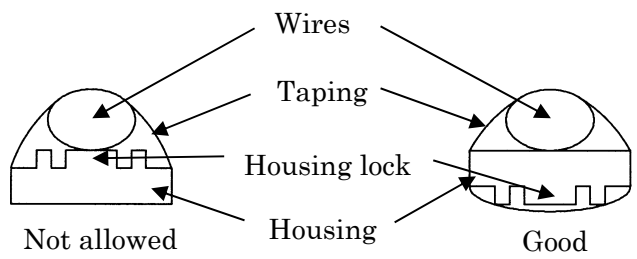
W/H in a box



Bad example:
There is an extra space so wire harnesses move in the box during transport or storage.

Good example:
Wire harness bundle size fits the box size so that the movement is minimized.

- 5) If the connector is taped on the wiring harness, use care for the housing lock or other flexible members of the connector not to come in contact with the harness.



Wires

Taping

Housing lock

Housing

Not allowed

Good

- 6) When the wire harness is taken out from the box, use care not to damage the connectors as the parts and wires may have been entangled with each other in the box.
- 7) After transport or storage, check that the connector is free of damage.
- 8) Before shipping the male connector, confirm with e.g. a check gauge that the male tabs are free of deformation.
→ If any deformation is found, do not try to fix it by hand; replace it with a new one.

**Notes**

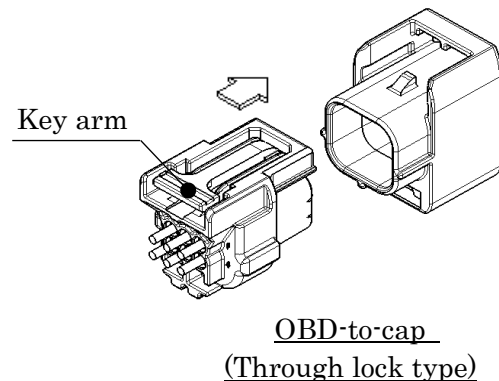
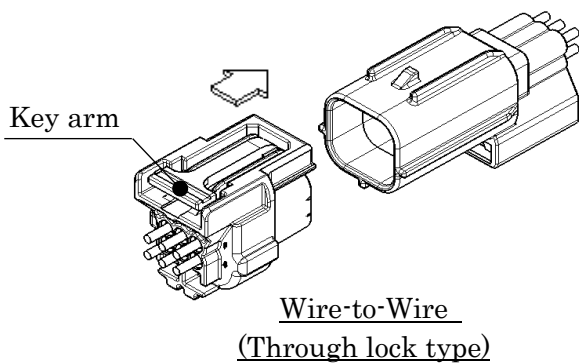
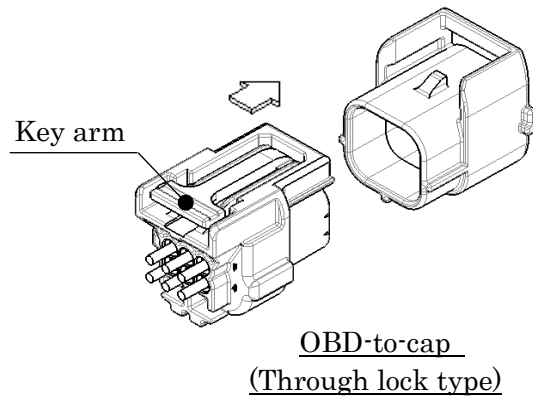
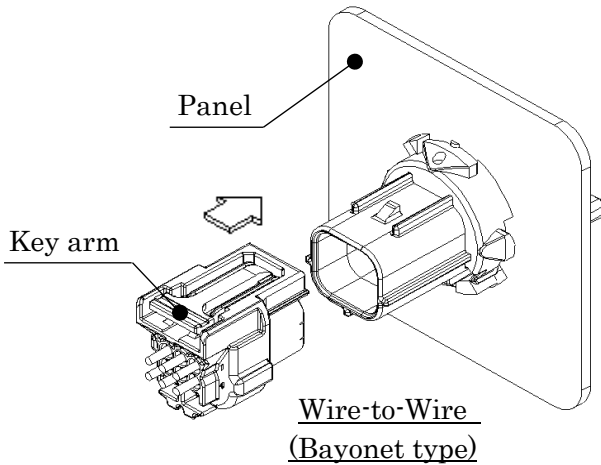
Make sure to provide proper protection for the wire harness against water or dust, and handle the wire harness gently.

11. Mating and unmating of connectors

11-1. Mating of connectors

- 1) Insert the female connector in the male connector straight until there is an audible 'click' sound, which is generated when the parts are fully mated and locked.
- 2) Make sure to mate the connectors in the correct direction.

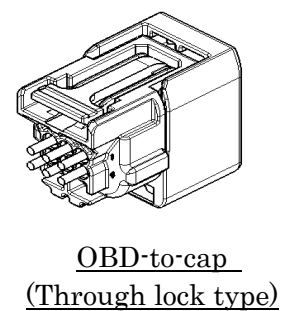
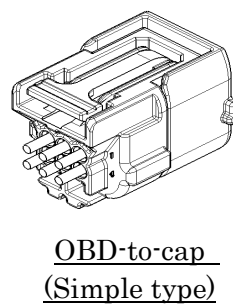
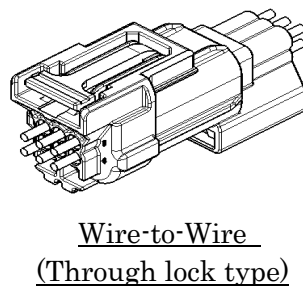
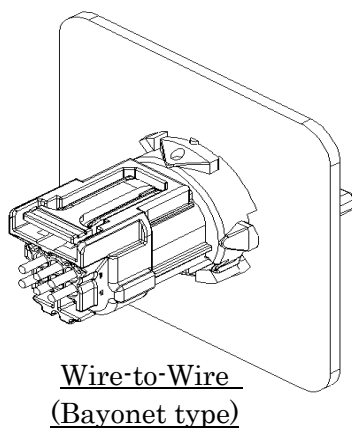
Note: Do not press the key arm during mating of the connectors.



11-2. Unmating of connectors

Press the key arm down and pull the female connector to remove it from the male connector.

Note: Do not pull the wires for unmating the connectors.



Notes

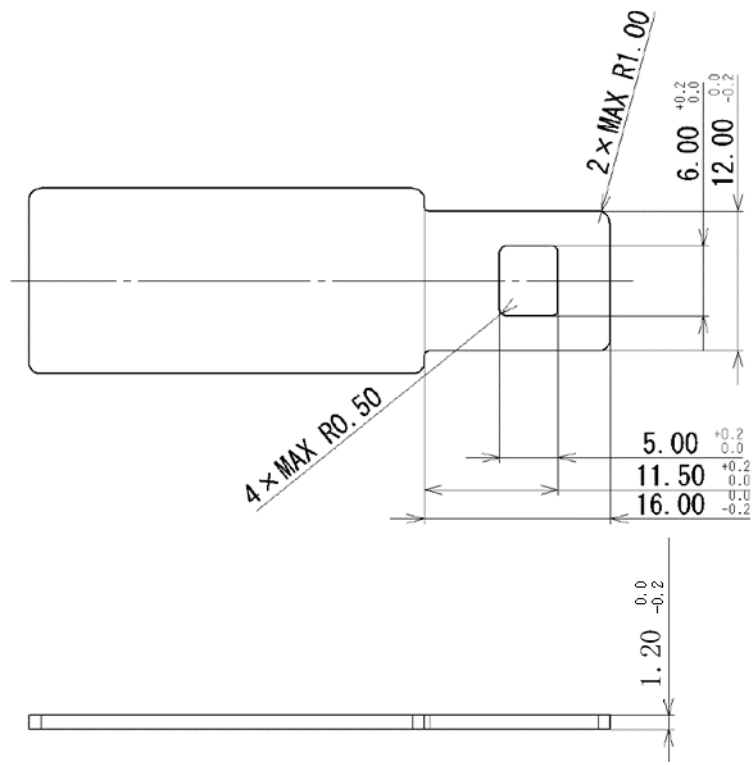
- 1) If it is not possible to mate the connectors smoothly, do not try to do it by force. Check if the parts are properly assembled and facing in the correct direction.
- 2) Do not apply high force to the connector and/or the wires.

12. Installation in vehicle

During installation of the connector in a vehicle, handle it gently not to damage the connector / wires especially when it is passed through a hole.

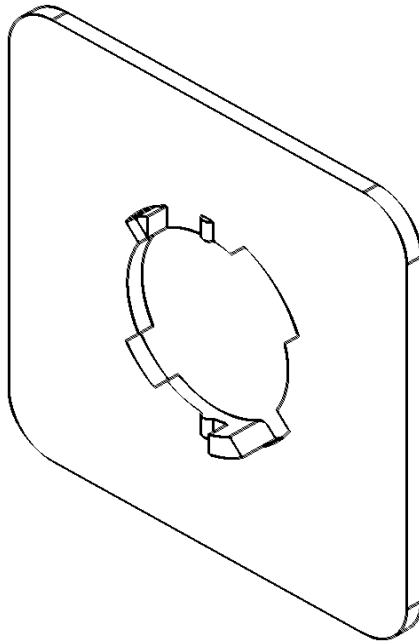
13. Fabrication of stay

If a metal stay is prepared of the male housing (through lock type) and the cap (through lock type), the material uses SPCC and make sure that it is free of burr, which can damage the products.



14. Panel hole geometry

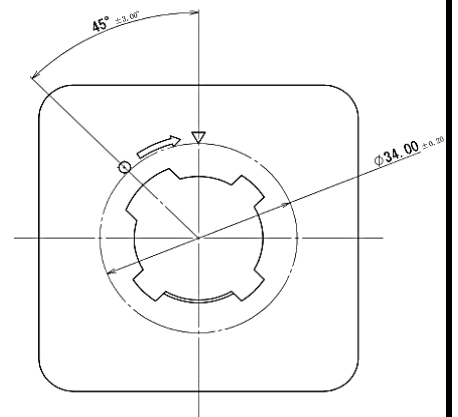
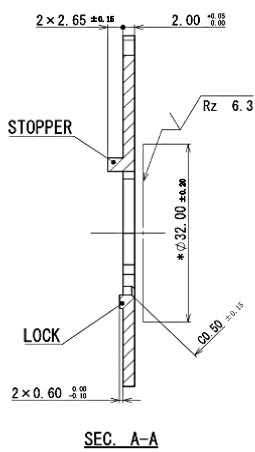
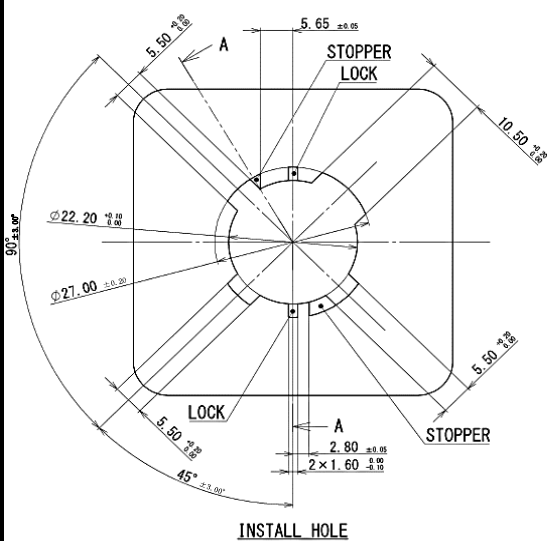
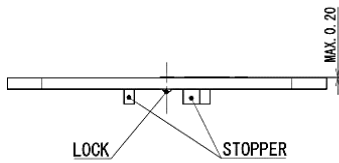
The panel hole in which the male housing (bayonet type) is attached should have the following recommendation dimensions:



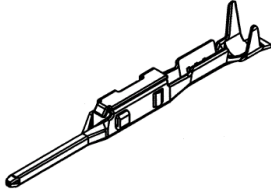
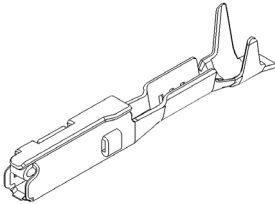
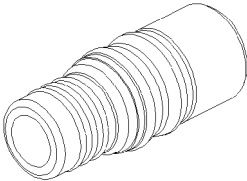
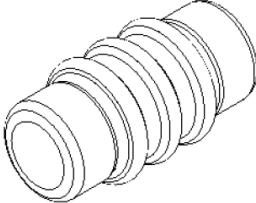
Panel hole recommendation dimensions

! Notes

- 1) The recommended materials for this part are PP,PC,and ASA.
- 2) Dimension marked * must be free of sink mark or flash that affect function.
- 3) Shall be free of sink mark or flash that affect function.
- 4) Applicable housing No.:7288-9556-30.Applicable gasket No.:7137-9089-30
- 5) Performance of this connector shall conform to product standard YPES-11-04-298.
- 6) Draft angle must be added within specified dimensional tolerance range, and part with draft angle must satisfy functional requirements.



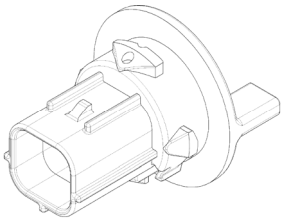
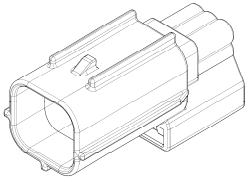
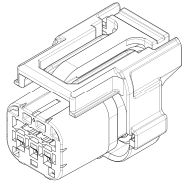
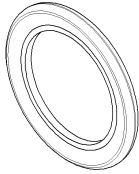

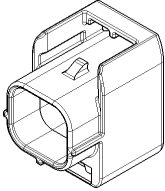
List of Components

YAZAKI part number	YAZAKI part description	Appearance	Material [Plating / Color]	Applicable terminals and wire seals
7114-4415-02	025 Type Terminal (M)		Brass [Tin Plating]	See Attachment - 2
7114-4416-02				
7114-4417-02				
7116-4415-02	025 Type Terminal (F)		Copper Alloy [Tin Plating]	
7116-4416-02				
7116-4417-02				
7158-3165-90	025 Type Wire Seal		Oil-bearing silicone rubber [Blue]	
7158-3166-60			Oil-bearing silicone rubber [Green]	
7158-3167-80			Oil-bearing silicone rubber [Brown]	
7158-3168-80			Oil-bearing silicone rubber [Dark brown]	
7158-3169-40	025 Type Sealing Plug		Oil-bearing silicone rubber [Gray]	

Terminals, wire seals and connectors

	Terminal YAZAKI p/n	Wire seal YAZAKI p/n	Wire sizes
Male terminal	7114-4415-02	7158-3165-90	CHFUS 0.22, 0.35sq
		7158-3166-60	AVSS 0.3sq CAVS 0.3sq CHFS 0.35sq AVSSH 0.3sq
	7114-4416-02	7158-3166-60	CHFUS 0.5sq CIVUS 0.5sq
		7158-3167-80	AVSS 0.5sq CAVS 0.5sq CHFS 0.5sq AVSSH 0.5sq AVSS-B 0.5sq
	7114-4417-02	7158-3167-80	CHFUS 0.75sq CIVUS 0.75sq
		7158-3168-80	AVSS 0.75sq CHFS 0.75sq CAVS 0.85sq
Female terminal	7116-4415-02	7158-3165-90	CHFUS 0.22, 0.35sq
		7158-3166-60	AVSS 0.3sq CAVS 0.3sq CHFS 0.35sq AVSSH 0.3sq
	7116-4416-02	7158-3166-60	CHFUS 0.5sq CIVUS 0.5sq
		7158-3167-80	AVSS 0.5sq CAVS 0.5sq CHFS 0.5sq AVSSH 0.5sq AVSS-B 0.5sq
	7116-4417-02	7158-3167-80	CHFUS 0.75sq CIVUS 0.75sq
		7158-3168-80	AVSS 0.75sq CHFS 0.75sq CAVS 0.85sq

Terminals, wire seals and connectors

YAZAKI part number	YAZAKI part description	Appearance	Material [Color]	Remarks
7288-9556-30	HS 025 Type Connector 6P Housing (M) (BAYONET TYPE)		PBT [Black]	Front holder [White] Material: PBT
7297-1861-30	HS 025 Type Connector 6P Housing (M) (THROUGH LOCK TYPE)		PBT [Black]	Front holder [White] Material: PBT
7289-9553-30	HS 025 Type Connector 6P Housing (F)		PBT [Black]	Front holder [White] Material: PBT Packing [Brown] Material: Silicone rubber
7289-9553-50			PBT [Red]	
7137-9089-30	Gasket		EPDM [Black]	
7174-1760-50	Cap (SIMPLE TYPE)		PBT [Red]	
7174-2012-50	Cap (THROUGH LOCK TYPE)		PBT [Red]	

技術標準対象部品品番一覧

TECHNICAL STANDARD target Parts Number List

No.	品番 Part Number	No.	品番 Part Number	No.	品番 Part Number	No.	品番 Part Number	No.	品番 Part Number	No.	品番 Part Number
1	7114-4415-02	51		101		151		201		251	
2	7114-4416-02	52		102		152		202		252	
3	7114-4417-02	53		103		153		203		253	
4	7116-4415-02	54		104		154		204		254	
5	7116-4416-02	55		105		155		205		255	
6	7116-4417-02	56		106		156		206		256	
7	7158-3165-90	57		107		157		207		257	
8	7158-3166-60	58		108		158		208		258	
9	7158-3167-80	59		109		159		209		259	
10	7158-3168-80	60		110		160		210		260	
11	7158-3169-40	61		111		161		211		261	
12	7288-9556-30	62		112		162		212		262	
13	7297-1861-30	63		113		163		213		263	
14	7289-9553-30	64		114		164		214		264	
15	7289-9553-50	65		115		165		215		265	
16	7137-9089-30	66		116		166		216		266	
17	7174-1760-50	67		117		167		217		267	
18	7174-2012-50	68		118		168		218		268	
19	7188-9556-30	69		119		169		219		269	
20	7197-1861-30	70		120		170		220		270	
21	7172-1524	71		121		171		221		271	
22	7189-9553-30	72		122		172		222		272	
23	7189-9553-50	73		123		173		223		273	
24	7172-1523	74		124		174		224		274	
25	7137-3154-80	75		125		175		225		275	
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