

YPES-15-239

Handing Manual
For
YESC Connector
1.5 System Unsealed

<Note> This document is subject to revision without notification.

YAZAKI PARTS CO.,LTD
YAZAKI CORPRATION
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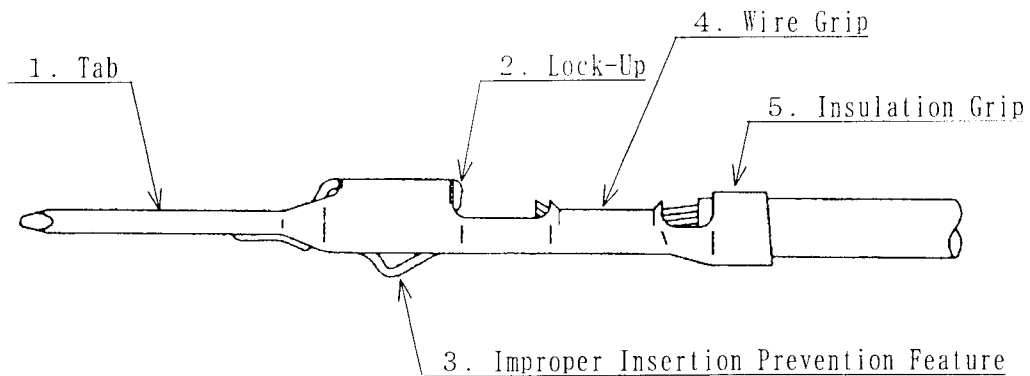
Attached Sheet

- 1. Parts List
- 2. Terminal Inspection Gauge (Reference Specifications)

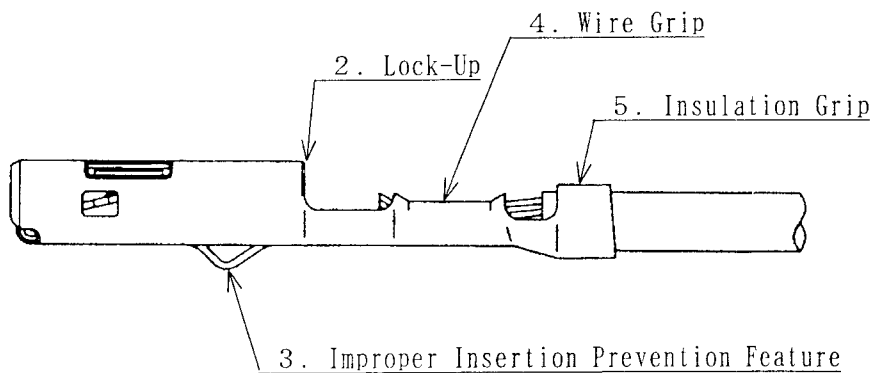
1. Description of Parts Features and Functions

1 - 1. Features and Functions

1 - 1 - 1. Male Terminal

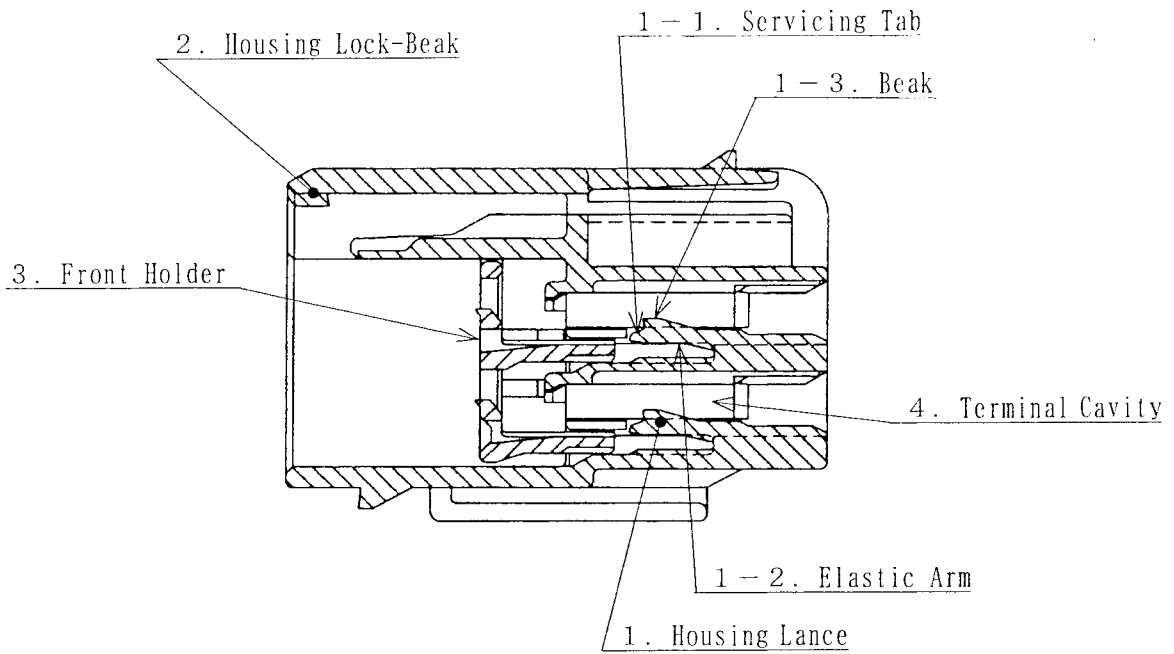
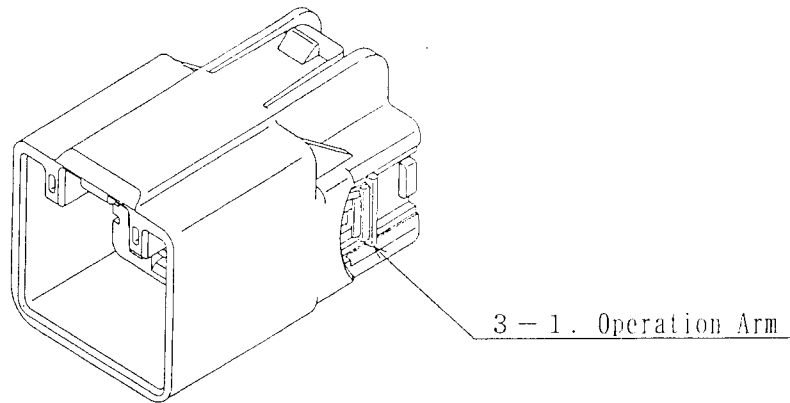


1 - 1 - 2. Female Terminal



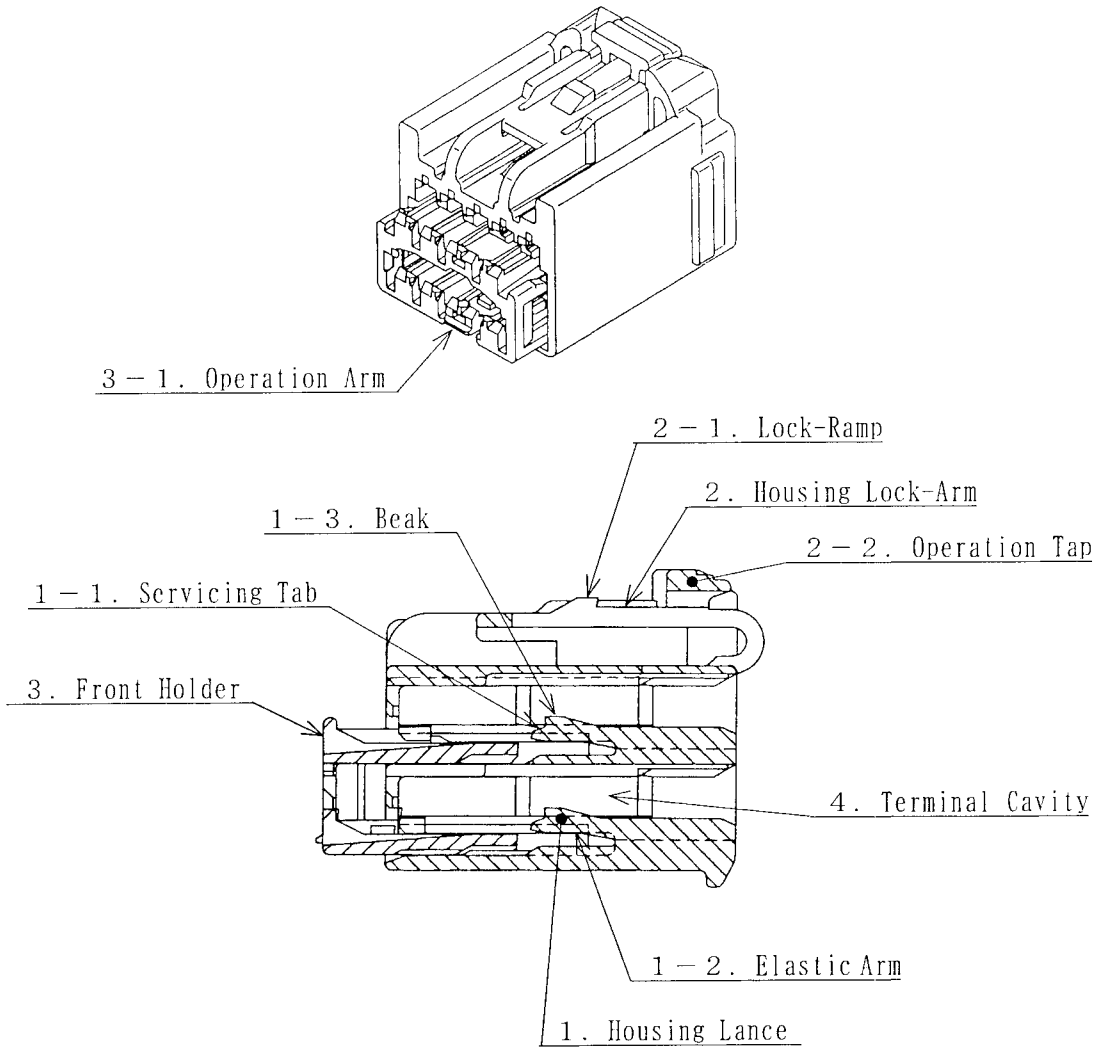
No.	Feature Name	F u n c t i o n
1	Tab	Contact with Female Terminal
2	Lock-Up	Provide Surface for Lock-up With Terminal Cavity Lock-arm
3	Improper Insertion Prevention Feature	Prevent Terminal Reverted Insertion
4	Wire Grip	Conductor Crimping
5	Insulation Grip	Insulation Crimping

1 - 2. Male Housing Features and Functions



NO.	Feature Name	F u n c t i o n
1	Housing Lance	Snap-fit Feature for Male Terminal
	1 - 1 Servicing Tab	Release of Housing Lance
	1 - 2 Elastic Arm	Allow Movement of Beak
	1 - 3 Beak	Lock/Retention of Male Terminal
2	Housing Lock-Beak	Lock/Retention of Female Housing
3	Front Holder	Terminal Position Assurance
	3 - 1 Operation Arm	Setting and Releasing of Front Holder
4	Terminal Cavity	Provides Housing for Terminal

1 - 3. Female Housing Features and Functions



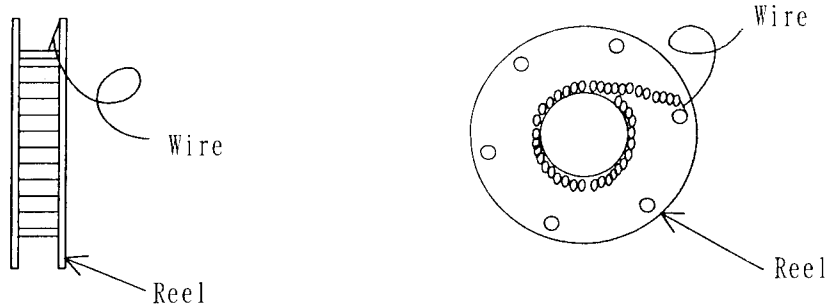
NO.	Feature Name	Function
1	Housing Lance	Snap-fit Feature for Female Terminal
	1 - 1 Servicing Tab	Release of Housing Lance
	1 - 2 Elastic Arm	Allow Movement of Beak
	1 - 3 Beak	Locking/Retention of Female Terminal
2	Housing Lock-Arm	Lock with Male Housing
	2 - 1 Lock-Ramp	Lock/Retention of Male Housing
	2 - 2 Operation Tap	Release of Housing Lock for Service
3	Front Holder	Terminal Position Assurance
	3 - 1 Operation Arm	Setting and Releasing of Front Holder
4	Terminal Cavity	Provides Housing for Terminal

2. Parts Storage, Transportation and Handling Precautions

The parts must be free of deformation, damage, etc. during storage and transportation.

2-1. Terminals

- Partial terminal reels should have the carrier strip secured to prevent reel unwinding of terminal entanglement. Recommended method is shown below.
- Recommended storage and transportation of terminal reels is shown below.



Recommended Method	Poor Practice
<p>Vinyl-Bag (Gold plating only)</p> <p>MAX. loading up to two Boxes.</p>	<p>(Uncovered Storage)</p>

Precautions during transportation

- 1) Paper-made reels should be handled with care.
- 2) Reels should be packed (protected) to avoid any harsh impact during transportation.
- 3) Care should be taken to avoid any harsh impact by dropping.

Precautions during storage

- 1) Terminals (reels) should be stored in the box in which they were shipped.
- 2) Terminals (reels) should be stored indoors, away from direct sunlight.
- 3) Terminals (reels) should be stored in an area void of high temperature and humidity.
- 4) Terminals (reels) must not be stored without box, vinyl or in unprotected condition.

(Terminals should be protected from water, dust, oil, gas etc.)

2-2. Housings etc.

Transportation

- 1) Parts should be packed (protected) to avoid any harsh impact during transportation.
- 2) Packing configuration should be avoid external force to parts.
- 3) During transportation, the packing should be checked to avoid deformation and damage to the connector.
- 4) Care should be taken to avoid any harsh impact by dropping.

Storage

- 1) Parts should be stored in the box or plastic bag in which they were shipped.
- 2) Packing configuration should be avoid external force to parts.
- 3) During storage, the packing should be checked to avoid deformation and damage to the connector.
- 4) Parts should be stored indoors, away from direct sunlight.
- 5) Parts should be stored in an area avoid of high temperature and humidity.
- 6) Parts must not be stored in an uncovered or unprotected condition.
(Parts should be protected from water, dust, oil, gas etc.)

3. Terminal Crimping Specifications

3-1. Crimping Standards

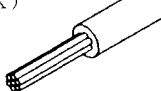
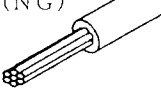
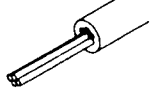
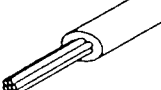
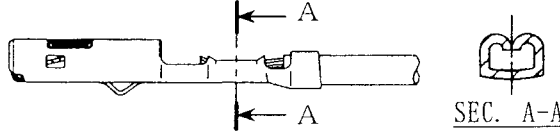

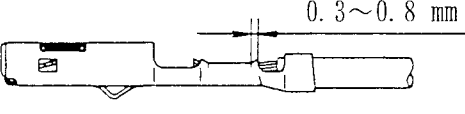
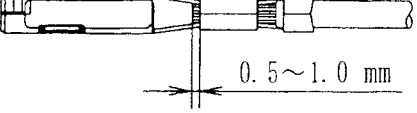
Contact our sales department for the official crimping standard.

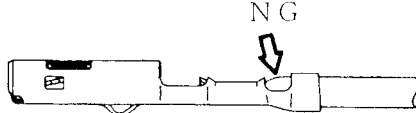
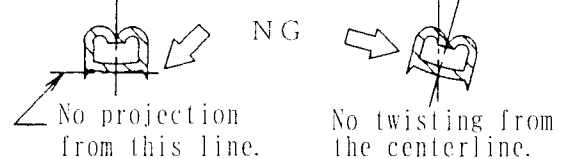
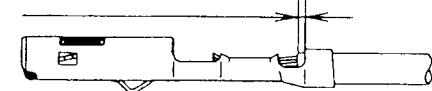

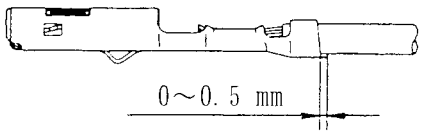
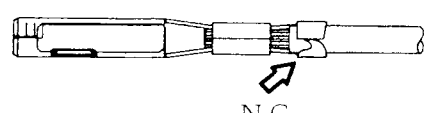
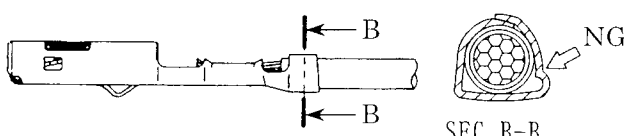


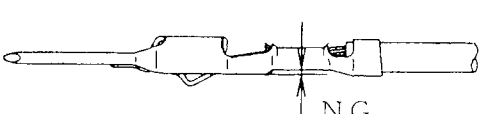
<NOTE> · Pay attention to crimp within the limit on the crimping standard. If it is out of the standard, because retention force of the crimping area and electrical resistance are not satisfied, the function of the part may be affected.

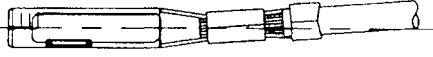
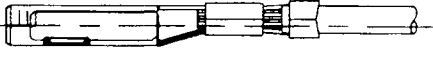
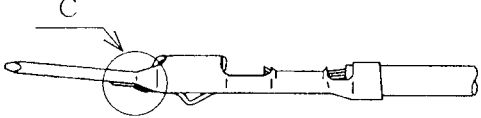

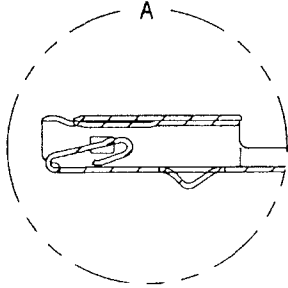
· The above is limited to the case when Yazaki's crimping tool is used.

3-2. Crimping Process Check Points and Judgement Criteria

- 1) Before storing or transporting the stripped wire, it should be crimped at once to avoid deformation of wire strands.
- 2) Do not repair terminals that have been deformed.
- 3) Attach the case immediately after crimping. If case is not available, protect the terminal with clean vinyl bag.
- 4) During the crimping process, check the following items.

ITEM	CHECK POINT	JUDGEMENTS		
1. Insul. Stripping	1) Normal 2) Conductor Diagonal Cutting 3) Conductor Cut 4) Any Flaw on Conductors 5) Insulation Diagonal Cut 6) Any Damage on Insulation	(OK)  1) Normal	(NG)  2) Conductor Diagonal Cut	 3) Conductor Cut  5) Insulation Diagonal Cut
2. Crimping of Conductor Grip (Male · Female)	1) Normal Crimping Condition			
	2) Any Conductor Flaw	NG 		
	3) Bell-Mouth			
	4) Top Length of Conductor			

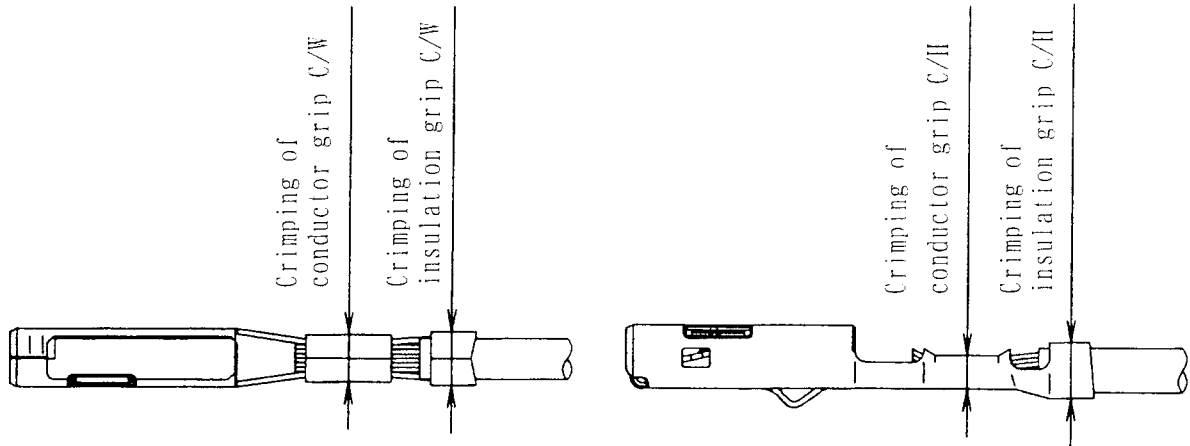
ITEM	CHECK POINT	JUDGEMENTS
2. Crimping of Conductor Grip (Male · Female)	5) Insulation Crimped by Conductor Grip	
	6) Burr and/or Twist	
3. Crimping of Insulation Grip (Male · Female)	1) Normal Crimping Condition	Insulation can be seen. 
	2) Insulation Falls short of Insulation Grip	
	3) Cut off Length	
	4) Damaged Insulation	
	5) No Crease of Grip	
4. Deformed by Crimping (Male · Female)	1) Bent Up	MAX. 3°  The degree of bending must be 3° or less.
	2) Bent Down	MAX. 2°  The degree of bending must be 2° or less.
	3) Crimp Discrepancy	

ITEM	CHECK POINT	JUDGEMENTS
4. Deformed by Crimping (Male · Female)	4) Twist	 <p>Any observable deformation by visual inspection is unacceptable.</p>
	5) Defect of Terminal Feeding	 <p>Any observable deformation by visual inspection is unacceptable.</p>
5. Deformed by Crimping (Male Only)	Tab Deformation	 <p>Deformation at area C is not acceptable.</p>
6. Deformed by Crimping (Female Only)	Box Misalignment	
7. Terminal Deformation (Female Only)	Terminal Deformation at A	 <p>Terminal deformation at A is not acceptable.</p>

3-3. Measurement Points of Specified Crimp Dimensions

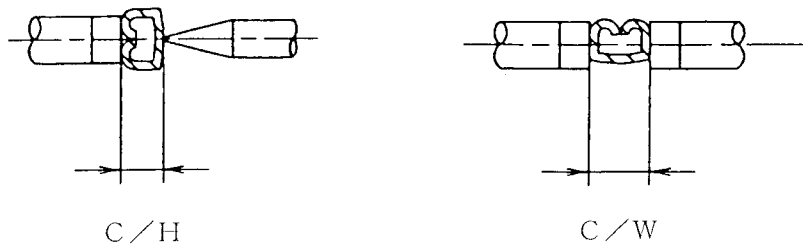
The optimum crimp dimensions should be as close to nominal as possible.

C/H : Crimping Height
C/W : Crimping Width

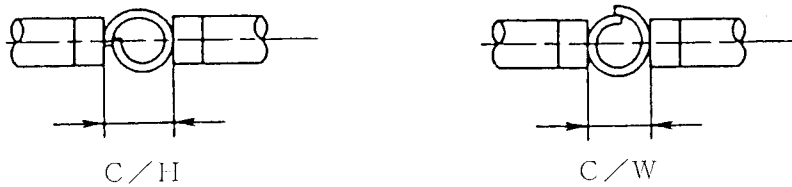


3-4. Method for Measurement of Crimp Height and Crimp Width

Conductor crimp : C/H and C/W should be measured at the center of the crimp using a micrometer.

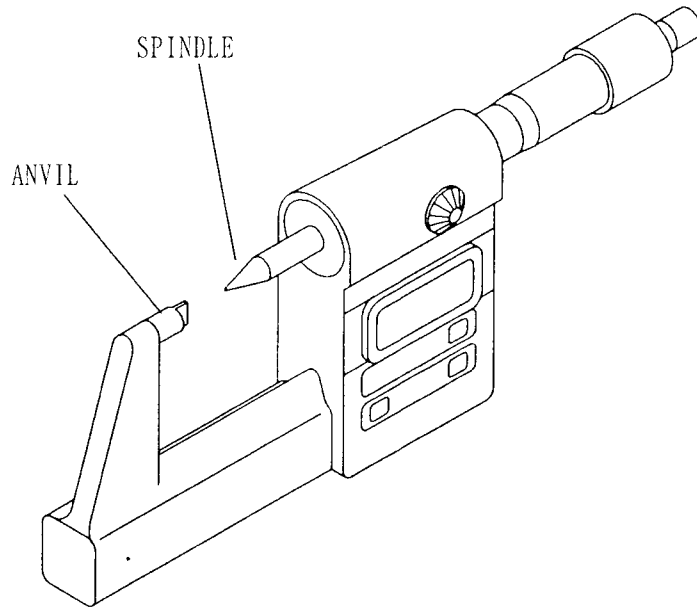


Insulation crimp : C/H and C/W should be measured at the center of the crimp using a micrometer.



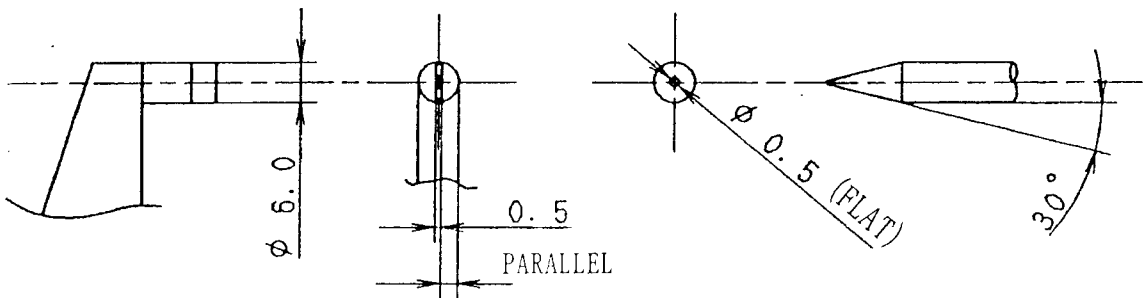
3 - 5. Measurement Equipment

The micrometer used for measurement should be similar to the device shown below. In order to obtain the most accurate measurement possible, it is recommended that the micrometer is mounted on a stand during use.

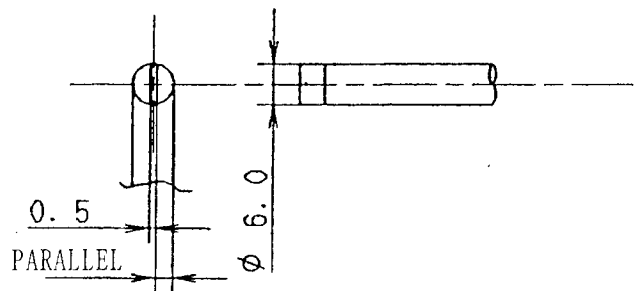


ANVIL

SPINDLE A



SPINDLE B



Use spindle A for the C/H measurement of conductor crimp.

Use spindle B for the C/W measurement of conductor crimp and for C/H and C/W measurement of Insulation crimp.

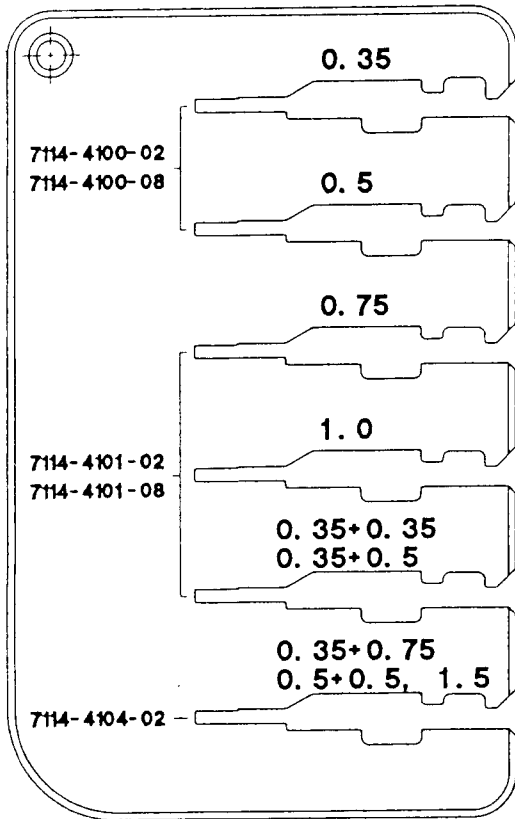
3 - 6. Terminal Inspection Gauge (Reference Specifications)

The purpose of this gauge is to assure the crimped terminal is with in the specified bend-up/bend-down requirements/tolerances.

(Refer to Attached sheet. 2)

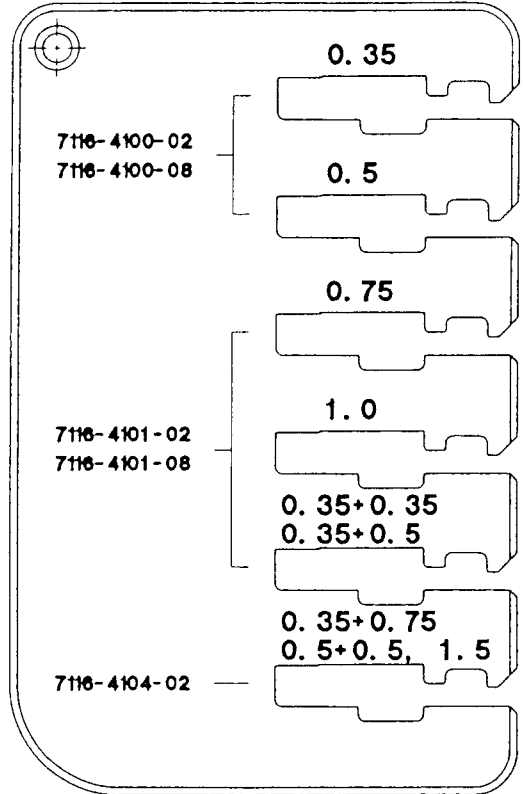
1) Male Terminal

PART NO. 48ZZ4003



2) Female Terminal

PART NO. 48ZZ4002



3) How to use

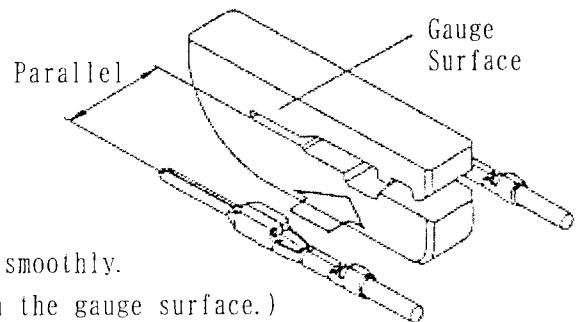
Insert the terminal in parallel against gauge surface.

Normal → Terminal can be inserted smoothly.

(Terminal should not touch the gauge surface.)

NG → Terminal can not be inserted at all.

(Terminal can be inserted but not smoothly.)



4) Inspection timing

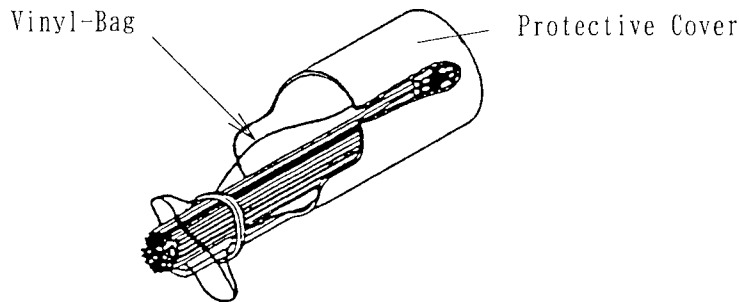
Inspect one terminal at start and end of each production lot.

(Call the maintenance for adjustment when trouble occur.)

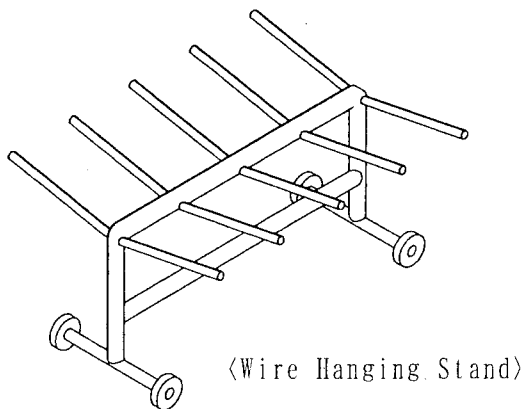
4. Handling Recommendation for Terminated Wires

Following-care must be taken when handling terminated wires so as not to deform (i. e. :bending, deformation) during transportation.

- 1) Terminated wires should be prepared only for subsequent usage rather than for stock/storage because terminated wires before installation into housings are easily broken.
- 2) The number of terminals crimped per wire bundle should range from 50-100 pieces. Bundles should be bound with elastic bands to prevent separation. (If bundled wires are more than 100 pieces, wires may be entangled each other or wiring becomes difficult because of self-weight of the wires. See below.)
- 3) Terminated leads should be covered with protective cover after rapped with vinyl bags to protect the crimped terminals. This bag should not be removed or opened until the leads is included in the harness assembly operation. See below.
- 4) Terminated wires should be transported by using a wire hanging stand or a covered carton/container. Do not pile up the terminated wires. (Pay attention to use the best method for the wires and terminals not to damage then.)
- 5) If the terminated wires must be transported to another facility for assembly, leads should be carefully placed in a covered carton/container. The container should be handled with care in order to avoid damage to crimped terminals.

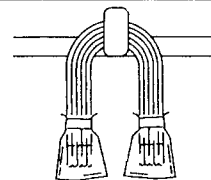


Example for Handling of Terminated Leads

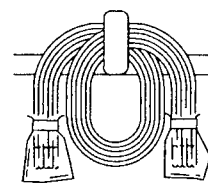


<Wire Hanging Stand>

Example of Wire Hanging



<Short Wires>



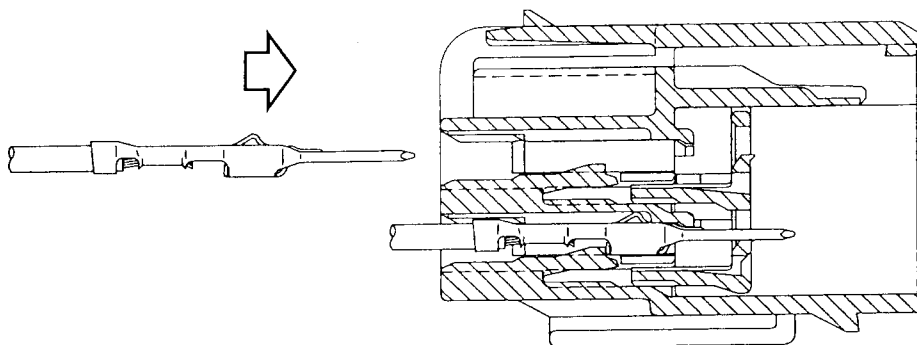
<Long Wires>

5. Terminal Setting Instructions and Precautions

5-1. Male Housing

5-1-1. Terminal installation to housing

- After assuring the orientation of the male terminals are correct, push the terminal into the appropriate cavity of the female housing. The front-loaded spacer must be in the pre-set position for terminal insertion to occur.
- Insert the terminal until an audible "click" sound is heard.
- Upon complete installation, pull lightly on the wire to confirm full lock-up.



Precaution

If the front-loaded spacer is not in the pre-set position, the spacer must first be moved to the preset position before terminal installation can started.

5 - 1 - 2. Front-Loaded Spacer Installation on Male Housing

- The front-loaded spacer may be in the pre-set position or the full-lock position on the housing. The illustrations below show the appearance of both the pre-set and full-lock positions.

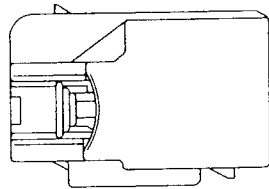


Fig. 1 Pre-Set position

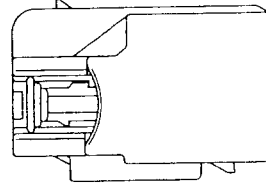
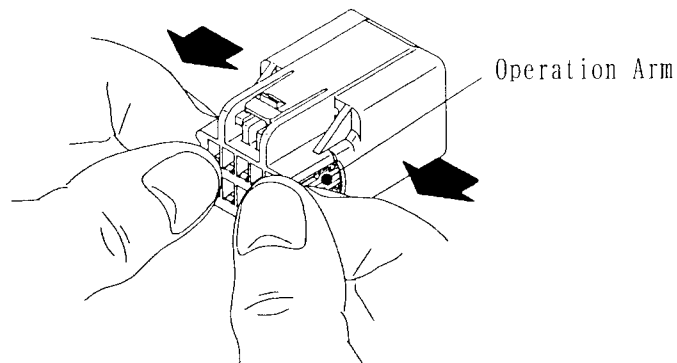
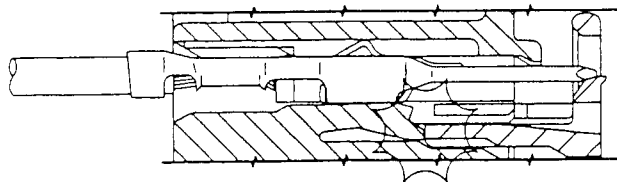


Fig. 2 Full-Set position



- The illustration above shows the spacer being moved from the pre-set position to the full-lock position.
- The Front-Loaded spacer must be in the pre-set position prior to the installation of terminals.
- After installation of all applicable terminals, the spacer must be moved to the full-lock position. Engagement of the spacer to the full-lock position cannot be completed if one of the following conditions exist:
 - The terminal(s) are not full installed to the cavity.
 - The terminal(s) are installed with the wrong orientation.
- After the condition(s) noted in item two is/are corrected, the spacer can be fully installed. Failure to correct these conditions prior to full spacer installation could result in damage to either the spacer or the housing.
- Visual confirmation of full spacer installation can be observed as illustrated on the previous page. Care should be taken to avoid the possibility of partial spacer installation. See Below.

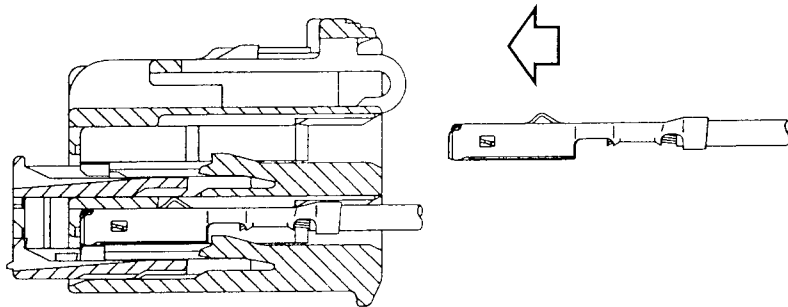


Beware of partial spacer insertion.

5 - 2. Female Housing

5 - 2 - 1. Terminal installation to housing

- After assuring the orientation of the male terminals are correct, push the terminal into the appropriate cavity of the female housing. The front-loaded spacer must be in the pre-set position for terminal insertion to occur.
- Insert the terminal until an audible "click" sound is heard.
- Upon complete installation, pull lightly on the wire to confirm full lock-up.

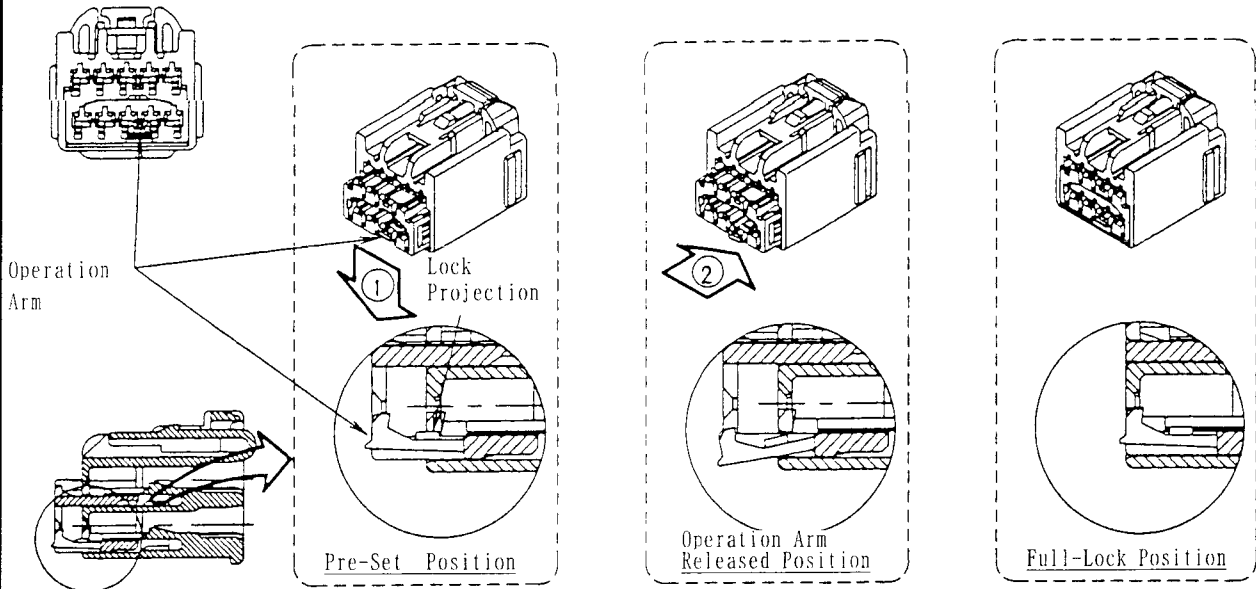


Precaution

If the front-loaded spacer is not in the pre-set position, the spacer must first be moved to the preset position before terminal installation can started.

5 - 2 - 2. Front-Loaded spacer Installation on Female Housing

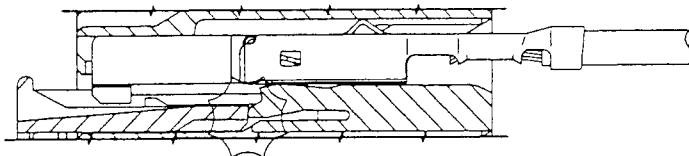
- Release the preset lock by pushing down on the front holder operation arm.



- With the operation arm deflected, push the front holder into the full-lock position.

When the terminal is correctly inserted, the front holder can be smoothly inserted. However, when the terminal is only partially inserted, there is interference with the housing lance. In the case, complete terminal insertion must be verified.

- The Front-Loaded spacer must be in the pre-set position prior to the installation of terminals.
- After installation of all applicable terminals, the spacer must be moved to the full-lock position. Engagement of the spacer to the full-installed position cannot be completed if one of the following conditions exist:
 - The terminal(s) are not full installed to the cavity.
 - The terminal(s) are installed with the wrong orientation.
- After the condition(s) noted in item two is/are corrected, the spacer can be fully installed. Failure to correct these conditions prior to full spacer installation could result in damage to either the spacer or the housing.
- Visual confirmation of full spacer installation can be observed as illustrated above. Care should be taken to avoid the possibility of partial spacer installation.
- The operation arm of the spacer should be deflected prior to moving the spacer between positions. Failure to deflect the operation arm could result in damage to either the housing or spacer feature.



Spacer Will Not Move to Lock Position If Terminal Is Not Completely Inserted

6. Terminal Removal Instructions and Precautions

Remove the terminal from this connector in accordance with following procedure.

Precaution

Trained operators shall be assigned to terminal removal operation.
Untrained operators may damage terminals and connectors during the operation.

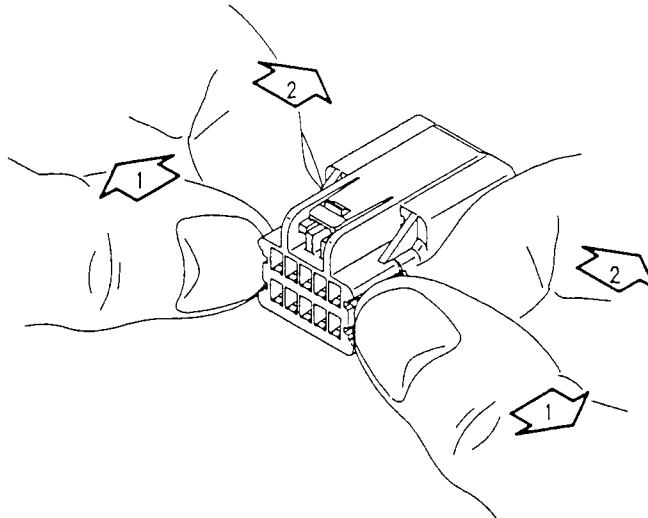
6 - 1. Male connector

6 - 1 - 1. Front holder release from full-lock position

Hold front holder operation arms and release full-lock by pulling them outward, then return it to pre-set position.

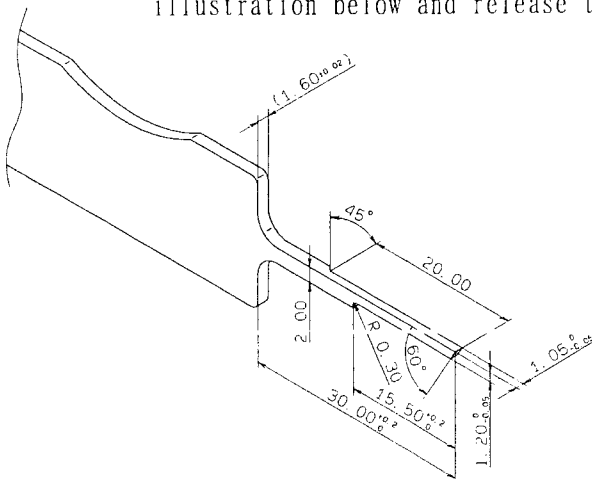
Precautions

- 1) Do not pull the front holder outward excessively.
- 2) Ensure that the front holder is in pre-set position.



6 - 1 - 2. Terminal removal procedure

- ① Confirm the orientation of the removal tool. Insert the removal tool straight into the guide hole from front holder side as shown in the illustration below and release the lock of housing lance.



PART NO. 48ZZ4009

Fig.1 Terminal Removal Tool

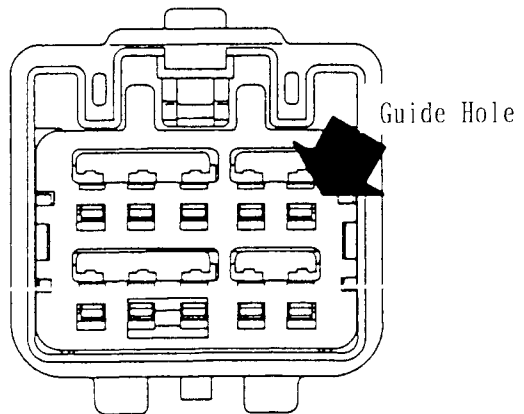
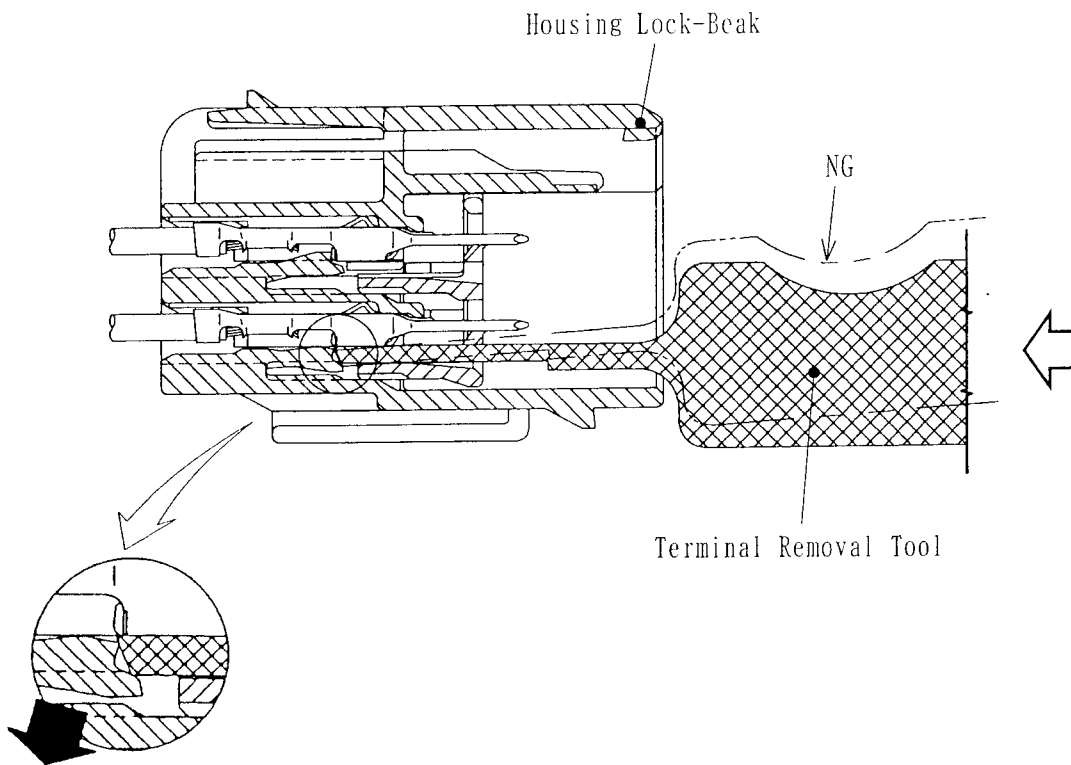


Fig.2 Position of Guide hole

Precautions

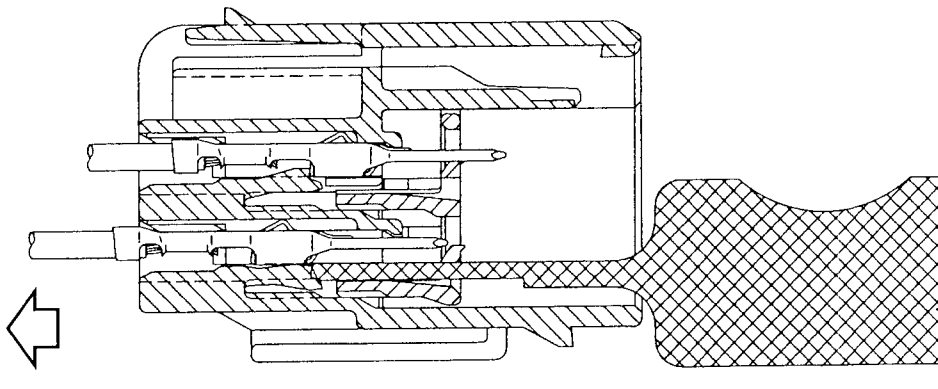
Insert the removal tool straight, and do not push too much.
This may cause the damage of the lance.



② Remove the terminal by pulling the wire lightly.

Precautions

- 1) When the terminal can not be removed easily, repeat the lance release procedure previously outlined.
- 2) After removal of terminal, check the terminal for damage and replace any damaged or deformed parts with new parts.



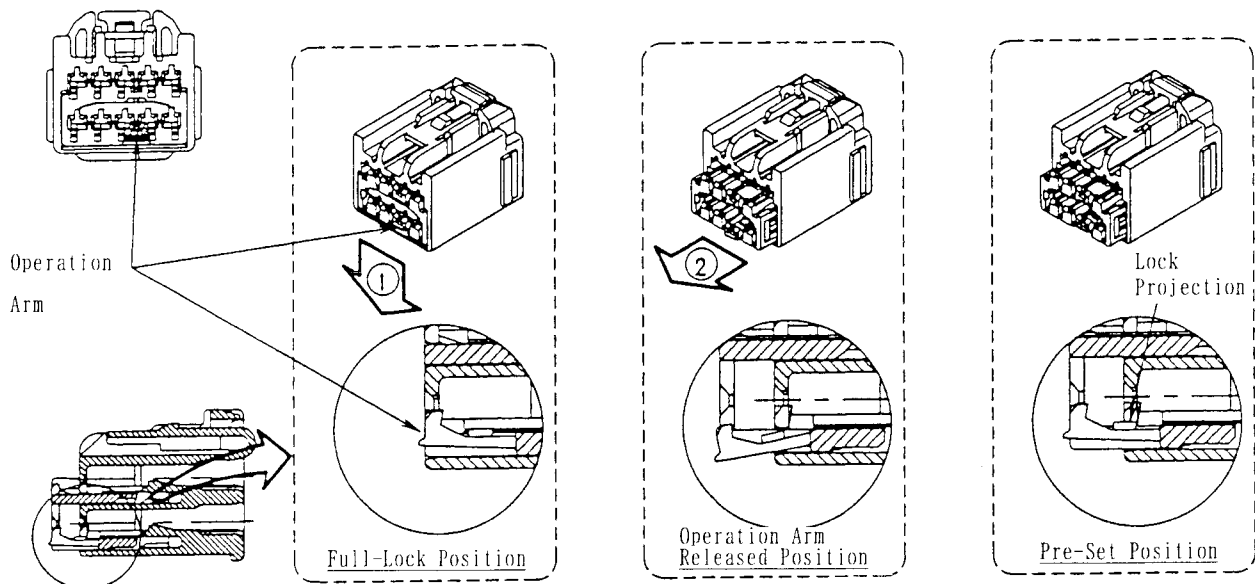
6 - 2. Female Connector

6 - 2 - 1. Disengagement of Spacer from the Full-Lock position

- Release the primary lock by pushing down on the front holder operation arm.
- With the operation arm in the released, pull out the front holder to the pre-set position.

Precautions

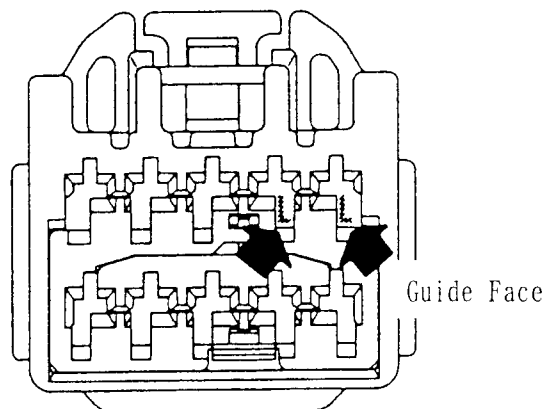
When releasing the operation arm, do not move it more than is necessary. Be careful not to deform the terminal, etc.



6 - 2 - 2. Terminal removal procedure

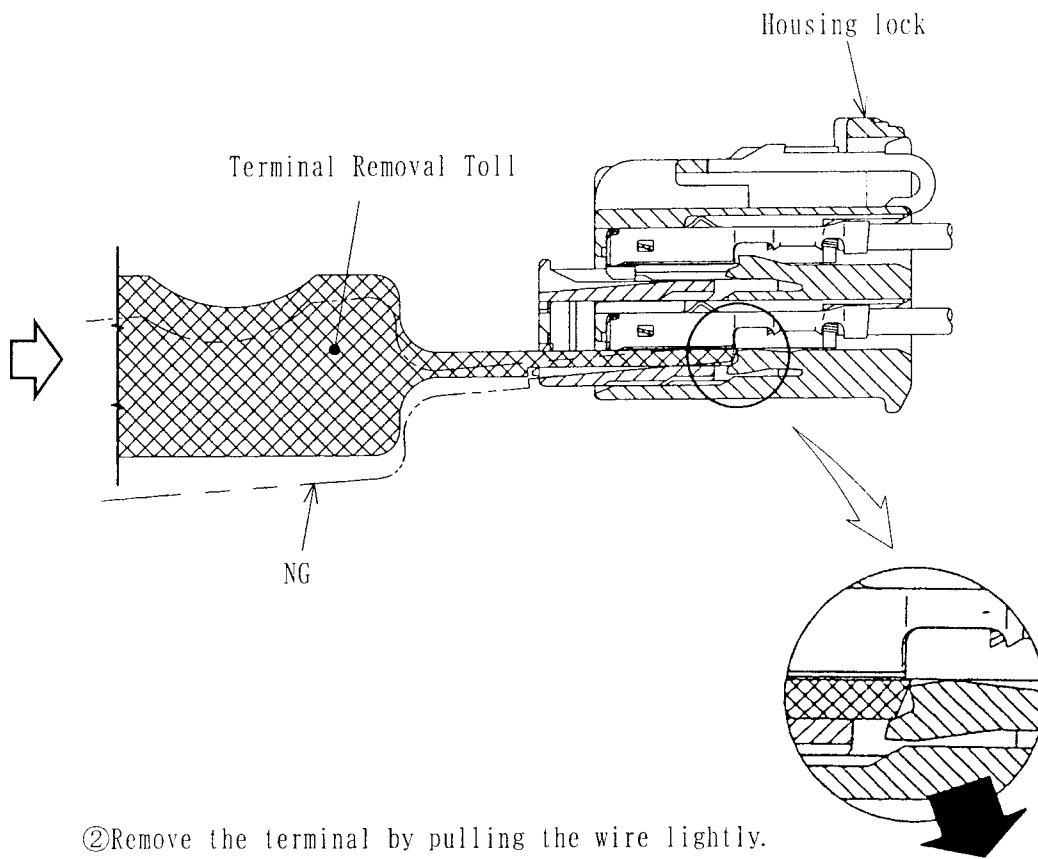
① Confirm the orientation of the removal tool (See Fig. 1 on Page 18).

Insert the removal tool along guide face from front holder side as shown in the illustration below, and release the lock of housing lance.



Precautions

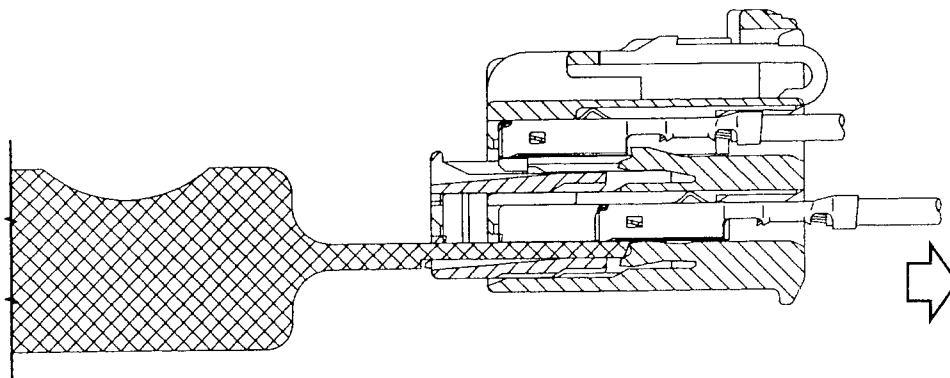
Insert the removal tool straight, and do not push too much.
This may cause the damage of the lance.



② Remove the terminal by pulling the wire lightly.

Precautions

- 1) When the terminal can not be removed easily, repeat the lance release procedure previously outlined.
- 2) After removal of terminal, check the terminal for damage, and replace any damaged or deformed parts with new parts.



7. Male Connector Terminal Alignment Inspection (How to use an alignment gauge)

7-1. Confirm the correct gauge is used for connector.

(Refer to the gauge numbers in Table 1.)

7-2. Before inserting gauge, inspect visually that no abnormal terminal alignment exists.

Precautions

- 1) Pull wires up and down and inspect terminal alignment.
- 2) For terminals which exhibit abnormal alignment, replace before inspection with gauge.

7-3. Insert gauge into connector shroud.

Confirm the gauge is in the proper position. (Refer to Fig. 2)

Bend the wire toward the lock side to wrench the terminal tips downward. Insert the gauge along the inside bottom surface of the shroud (Refer to Fig. 3) Confirm the gauge can be fully inserted with a force equivalent to the weight of the gauge itself. (Refer to Fig. 4)

Precautions

- 1) To check the connectors for the block: Do not touch the wires and inspect it as is.
- 2) It's unnecessary to bend the wire for inspection
- 3) If the terminal alignment is not acceptable, the gauge will interfere with the terminal and stop approx. 4mm from the end of the shroud. In this case, do not push the gauge. (Refer to Fig. 5)

7-4. Remove the gauge to reinspect the terminal alignment.

Misalignment prevention rib

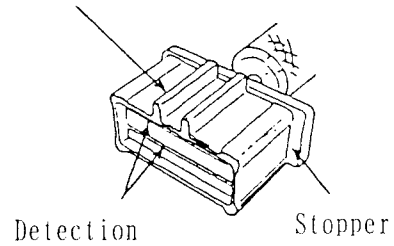


Fig. 1 Gauge Features Name

Lock side of connector

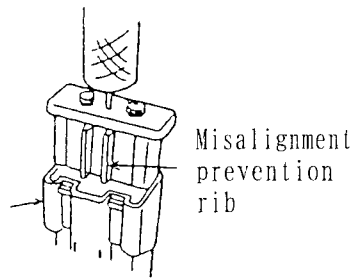


Fig. 2 Gauge insertion direction

Misalignment prevention rib

Lock side

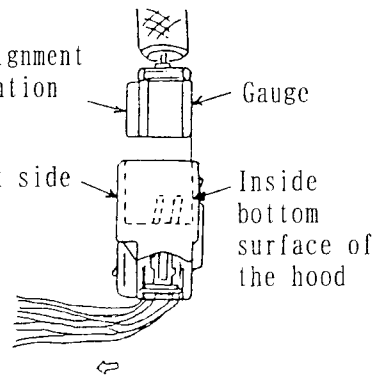


Fig. 3 Harness Routing Shield

Clearance 0

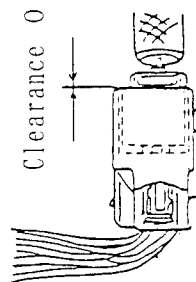


Fig. 4 OK

Approx. 4mm

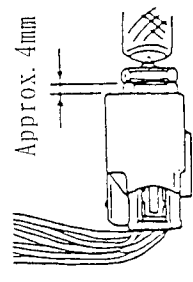


Fig. 5 NG

Table 1. Gauge number and applicable part for gauge inspection

NO.	Part Name / Part Number		Gauge Number	Remarks
1	1.5 10PA	7282-5533-40	48ZZ4004	
2	1.5 16PA (Green)	7282-5534-60	48ZZ4005	Common with Gauges No. 2-No. 4
3	1.5 16PB (Blue)	7282-5535-90		
4	1.5 16PC (Gray)	7282-5536-40		

<Note> If gauges for parts not listed above are needed, please contact our sales section.

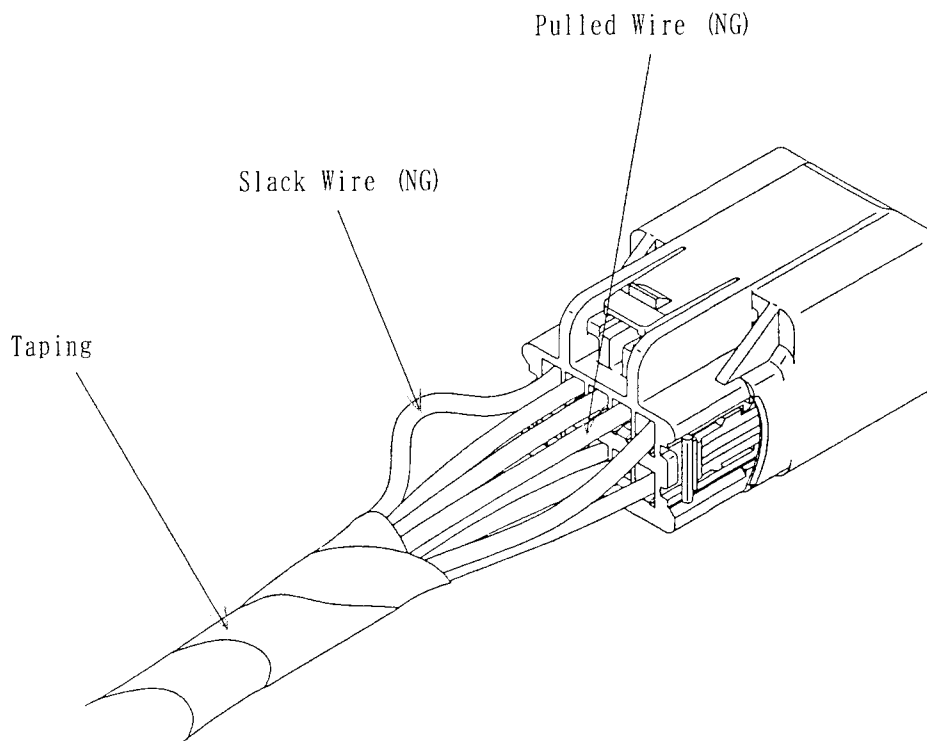
8. Precautions During Wire Harness Assembly

8 - 1. Wire Harness Assembly

- 1) Avoid tangling the leads which could cause the terminated wires to become hooked and/or damaged.
- 2) Wires of inadequate length should be discarded rather than forced into the connector. 'Stretching' of the circuit could result in wire breakage or housing/terminal damage.
- 3) When ultrasonic is employed to connect components (terminal, wire, etc...), confirm that ultrasonic cause no negative effect on terminal and connector before the application.

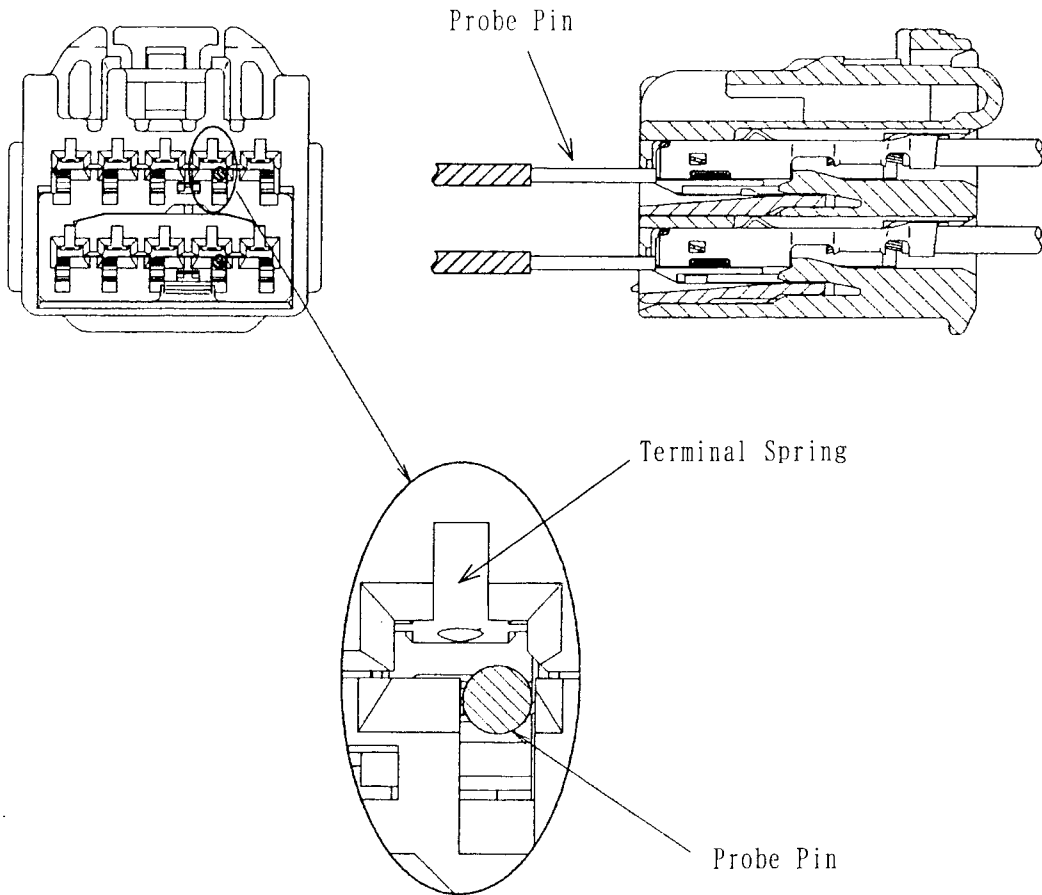
8 - 2. Taping

Wires which will be taped should be of similar length. Taping of circuits of different length could result in a concentration of force on the shortest wire, resulting in Terminal Pull-Out.



8-3. Precautions During Inspection

- 1) Jigs used for routing and/or continuity inspection should be calibrated for the tolerance equivalent to that of the dimension of mating component. Use of jigs with greater tolerance variation than that of the mating component could result in damage to the housing and/or terminal.
- 2) During routing inspection, in case a jig is used to contact female terminal, it should be calibrated for the tolerance equivalent to that of the dimension of male connector. Use of jigs with greater tolerance variation than that of male connector could result in damage to female terminal.
- 3) A probe pin should be inserted for continuity inspection purpose. The recommended location for the insertion of the probe pin is shown in the illustration below (to prevent terminal spring deformation).

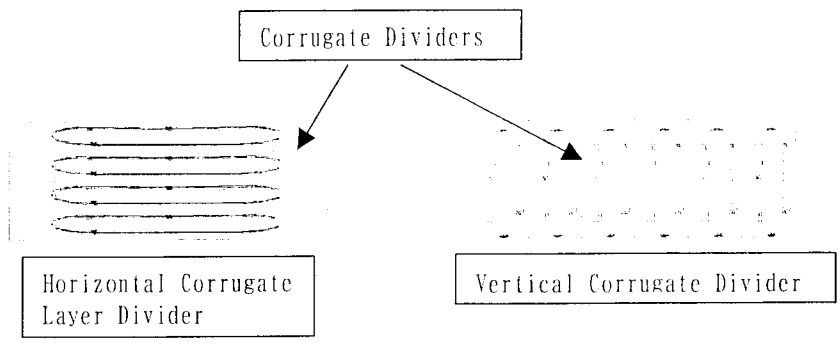


- 4) Damaged and/or deformed housing/terminal should be replaced regardless the degree of damage/deformation.

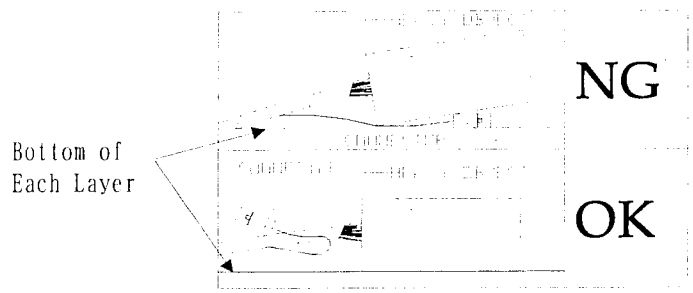
9. Notice for Packing of Wire Harness

As with many plastic parts the connector may be damaged if external force is applied to the connector during transportation or storage. To prevent damages, please take the following actions as well as the standard packaging and handling procedures:

When packing wire harness in layers, please use paper corrugate/corrugate dividers for each layer, including layer dividers, vertical dividers, internal supports, and partitions to equally distribute weights of upper-layer harnesses from being unequally applied to the lower-layer harnesses, as shown below.



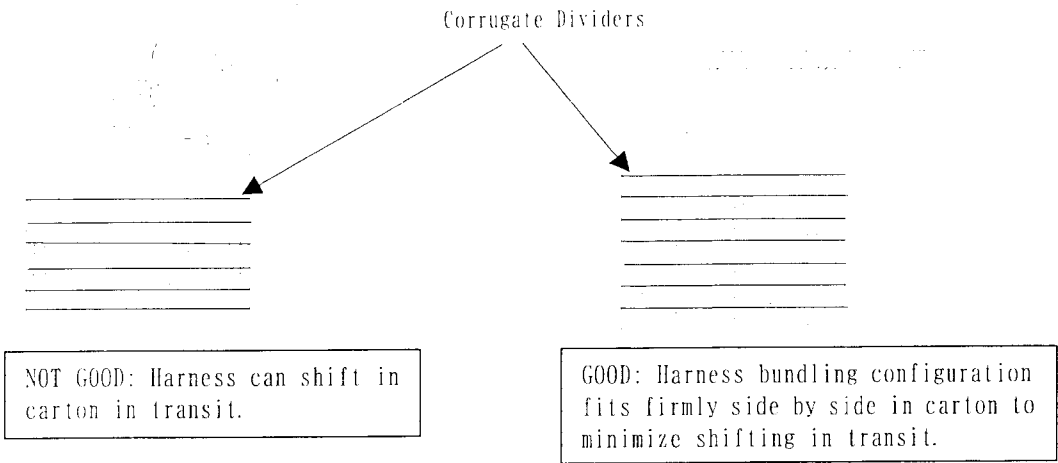
Junction block, relay box, protectors, brackets, and any heavy and/or bulky item must be placed on the bottom of the carton or the divider to prevent weight of such item from being applied to the connector as shown below.



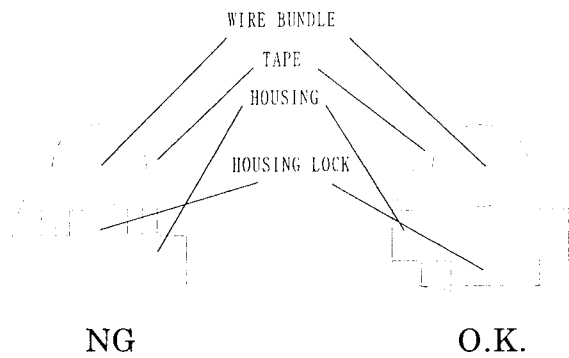
The connector must be positioned outside or in the center of the harness bundle, to prevent the weight of the harness from being applied to the connector

Sample harness sketch. Place connectors inside and outside of bundled W/H to protect connectors from weight of the W/H.

Wire harness bundle size must fit the carton to prevent shifting of wire harness during transportation or storage. See below illustration.



If the connector housing is 'taped back' on the wire harness bundle, assure that the housing lock or other flexible member of the connector is positioned away from the wire harness bundle. See reference illustration below.



Extra care must be taken to prevent wire harnesses tangling which causes damages to the connector when the wire harness is removed from the carton at the vehicle assembly.

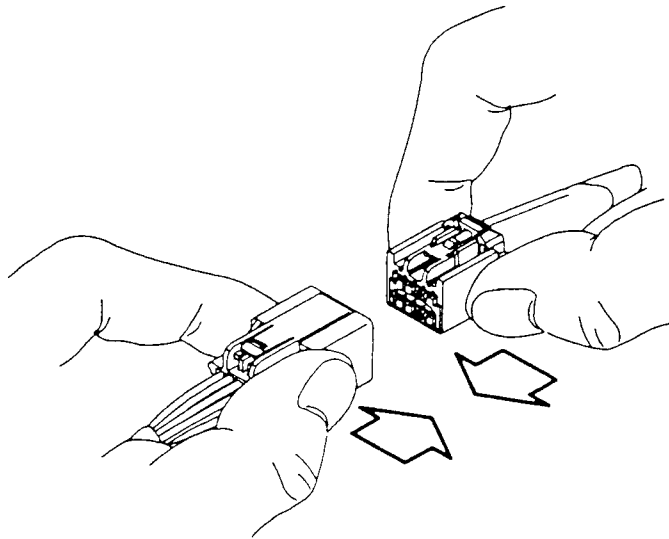
After transportation or storage, the connector must be checked for damages.

YAZAKI SHALL NOT BE LIABLE FOR ANY DAMAGES RESULTING FROM MISUSE OR FAILURE TO FOLLOW THE ABOVE INSTRUCTIONS

10. Precautions During Wire Harness Installation into the Vehicle

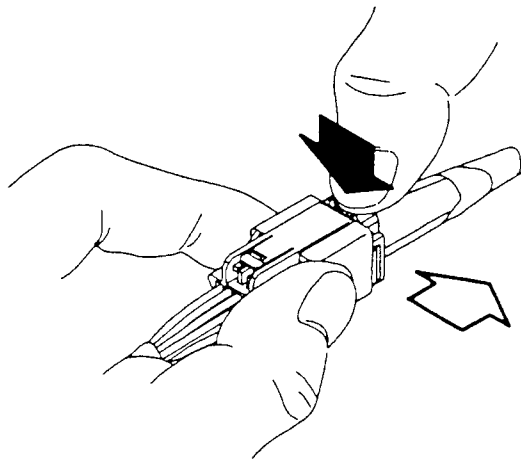
10-1. Connector Mating

- 1) Upon confirmation that the proper connectors are being mated (i.e. proper keyway is confirmed), the connectors should be smoothly mated. Unnecessary scooping or wrenching of the connectors should be avoided.
- 2) Confirm that the front holder has been surely full-locked.
(In case it has not been full-locked, refer to 5-1 and 5-2.)
- 3) Push the connectors until "click" sound which locking beak is locked is heard.
(During mating, do not press locking key.)
- 4) Confirm that connectors have been surely mated by pulling male/female connectors lightly.

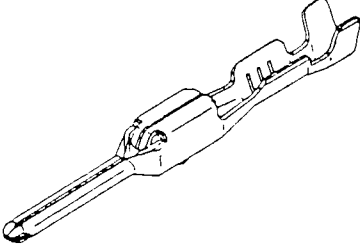
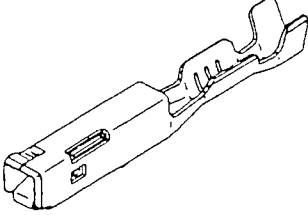


10-2. Connector Servicing

Connector disengagement can be facilitated by pulling the lever out and pulling apart the male and female connectors. During the removal process, the wires of the connector should not be held or pulled. Application of force to the wires could result in damage to the individual components of the connector.



1. PARTS LIST (Please contact our sales for double crimping.)

YAZAKI PART No.	YAZAKI PART NAME	SKETCH	REMARK
7114-4100-02	MALE TERMINAL		TIN PLATING APPLICABLE WIRE SIZE 0.3 ~ 0.5 mm ² 22 ~ 20 AWG
7114-4101-02			0.75 ~ 1.25 mm ² 18 ~ 16 AWG
7114-4104-02 ※1			1.5 mm ²
7114-4100-08			GOLD PLATING APPLICABLE WIRE SIZE 0.3 ~ 0.5 mm ² 22 ~ 20 AWG
7114-4101-08			0.75 ~ 1.25 mm ² 18 ~ 16 AWG
7116-4100-02	FEMALE TERMINAL		TIN PLATING APPLICABLE WIRE SIZE 0.3 ~ 0.5 mm ² 22 ~ 20 AWG
7116-4101-02			0.75 ~ 1.25 mm ² 18 ~ 16 AWG
7116-4104-02 ※1			1.5 mm ²
7116-4100-08			GOLD PLATING APPLICABLE WIRE SIZE 0.3 ~ 0.5 mm ² 22 ~ 20 AWG
7116-4101-08			0.75 ~ 1.25 mm ² 18 ~ 16 AWG

※1 : Refer to next page.

※1 : Terminal for 1.5sys with 1.5mm² should be used only for those applications where excessive voltage drop in a small size wire may adversely affect the function of the circuit.

Maximum applied current on the wire of 1.5mm² for 1.5sys should not exceed 15A

Maximum applied current recommendation based on Bench-Test results only.

(Test conditions: Single Circuit, 20°C Ambient, Open Air, 1.25mm² wire, 20°C ROA.)

Appropriate de-rating should be considered based on specific application requirements (Ambient Temperature, Pole quantity, Wire Size, etc.)

Description	Max Wire Size	Wire Sizes for Applications with Excessive Voltage Drop	Max Current Recommendation ¹⁾
1.5sys	1.25mm ² ²⁾	1.5mm ²	15A

1) Single Circuit, 20°C Ambient, Open Air and 20°C ROA with Max Wire

2) 1.25mm²≒16AWG

<Appendix>

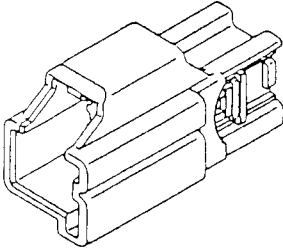
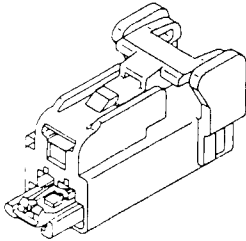
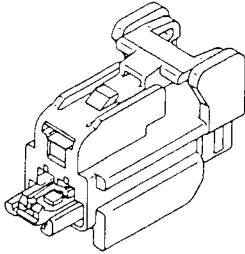
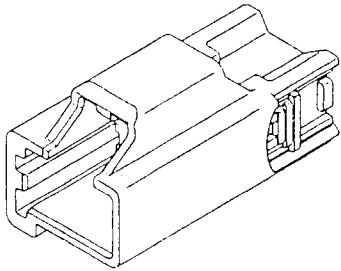
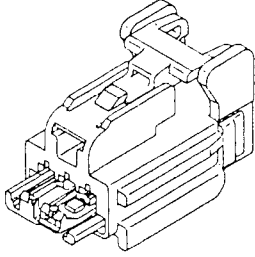
Applicable Wire Size

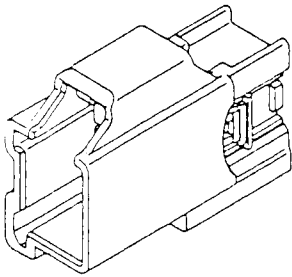
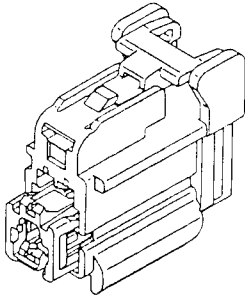
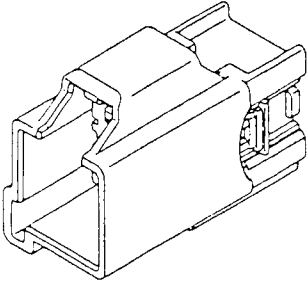
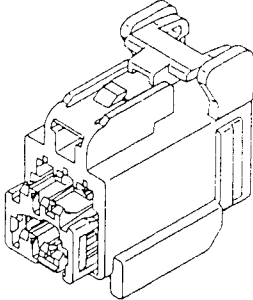
Wire Size	AWG		22		20		18		16	
	ISO (mm ²)	0.35		0.5		0.75		1.0		1.5
1.5sys	MALE	○	○	○	○	○	○	○	○	△
	FEMALE	○	○	○	○	○	○	○	○	△

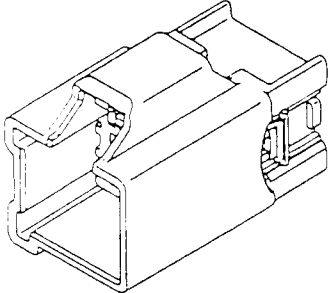
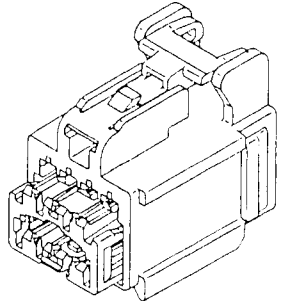
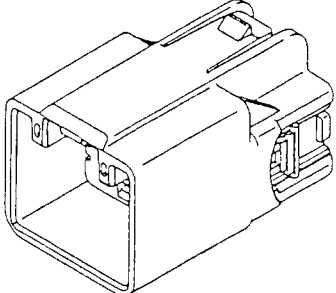
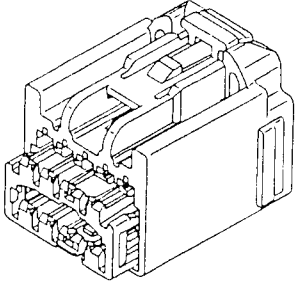
○ : Acceptable

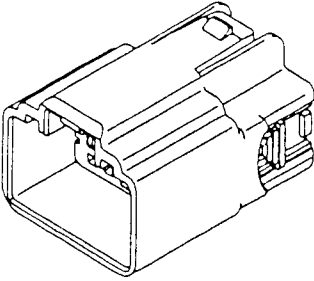
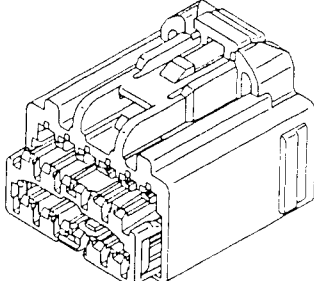
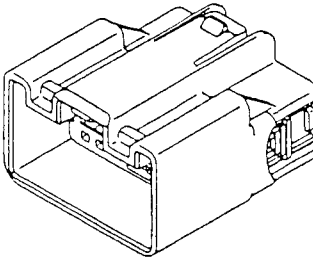
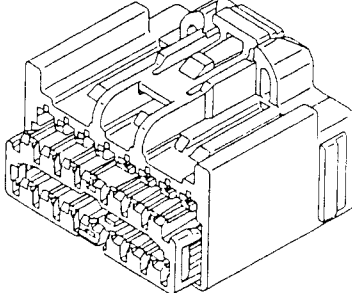
× : Not Acceptable

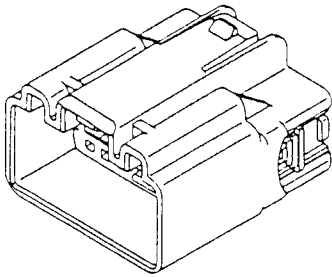
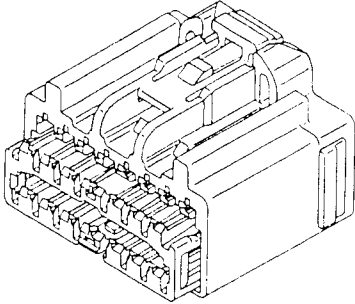
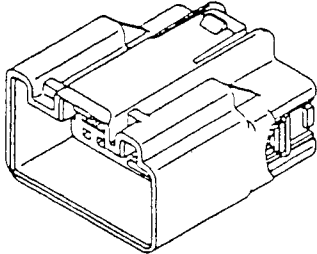
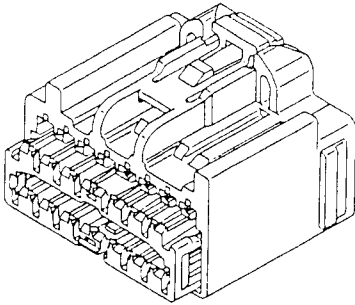
△ : Terminals for Voltage Drop Issue

YAZAKI PART No.	YAZAKI PART NAME	SKETCH	REMARK
7282-5530-40	2 P (M) -A		HOUSING : LIGHT GRAY FRONT HOLDER : NATURAL
7282-5530-50			HOUSING : ORANGE FRONT HOLDER : NATURAL
7282-5530-70			HOUSING : YELLOW FRONT HOLDER : NATURAL
7283-5530-40	2 P (F) -A		HOUSING : LIGHT GRAY FRONT HOLDER : NATURAL
7283-5530-50			HOUSING : ORANGE FRONT HOLDER : NATURAL
7283-5530-70			HOUSING : YELLOW FRONT HOLDER : NATURAL
7283-5680-60	2 P (F) -B		HOUSING : GREEN FRONT HOLDER : NATURAL
7282-5539-40	3 P (M)		HOUSING : LIGHT GRAY FRONT HOLDER : NATURAL
7283-5539-40	3 P (F)		HOUSING : LIGHT GRAY FRONT HOLDER : NATURAL

YAZAKI PART No.	YAZAKI PART NAME	SKETCH	REMARK
7282-5531-40	4 P (M) -A		HOUSING : LIGHT GRAY FRONT HOLDER : NATURAL
7282-5531-50			HOUSING : ORANGE FRONT HOLDER : NATURAL
7282-5531-70			HOUSING : YELLOW FRONT HOLDER : NATURAL
7283-5531-40	4 P (F) -A		HOUSING : LIGHT GRAY FRONT HOLDER : NATURAL
7283-5531-50			HOUSING : ORANGE FRONT HOLDER : NATURAL
7283-5531-70			HOUSING : YELLOW FRONT HOLDER : NATURAL
7282-5532-40	6 P (M)		HOUSING : LIGHT GRAY FRONT HOLDER : NATURAL
7283-5532-40	6 P (F)		HOUSING : LIGHT GRAY FRONT HOLDER : NATURAL

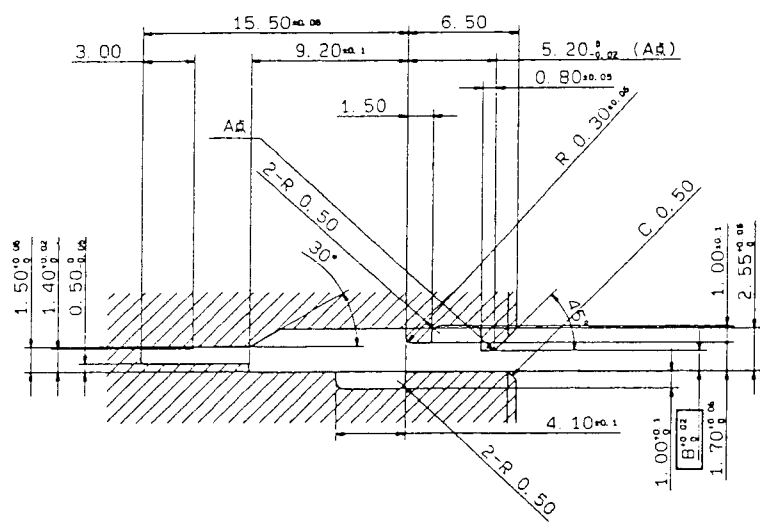
YAZAKI PART No.	YAZAKI PART NAME	SKETCH	REMARK
7282-5538-40	8 P (M)		HOUSING : LIGHT GRAY FRONT HOLDER : NATURAL
7283-5538-40	8 P (F)		HOUSING : LIGHT GRAY FRONT HOLDER : NATURAL
7282-5533-40	10 P (M)		HOUSING : LIGHT GRAY FRONT HOLDER : NATURAL
7282-5533-70			HOUSING : YELLOW FRONT HOLDER : NATURAL
7283-5533-40	10 P (F)		HOUSING : LIGHT GRAY FRONT HOLDER : NATURAL
7283-5533-70			HOUSING : YELLOW FRONT HOLDER : NATURAL

YAZAKI PART No.	YAZAKI PART NAME	SKETCH	REMARK
7282-5540-40	1 2 P (M)		HOUSING : LIGHT GRAY FRONT HOLDER : NATURAL
7283-5540-40	1 2 P (F)		HOUSING : LIGHT GRAY FRONT HOLDER : NATURAL
7282-5534-60	1 6 P (M) - A		HOUSING : GREEN FRONT HOLDER : NATURAL
7283-5534-60	1 6 P (F) - A		HOUSING : GREEN FRONT HOLDER : NATURAL

YAZAKI PART No.	YAZAKI PART NAME	SKETCH	REMARK
7282-5535-90	1 6 P (M) - B		HOUSING : BLUE FRONT HOLDER : NATURAL
7283-5535-90	1 6 P (F) - B		HOUSING : BLUE FRONT HOLDER : NATURAL
7282-5536-40	1 6 P (M) - C		HOUSING : LIGHT GRAY FRONT HOLDER : NATURAL
7283-5536-40	1 6 P (F) - C		HOUSING : LIGHT GRAY FRONT HOLDER : NATURAL

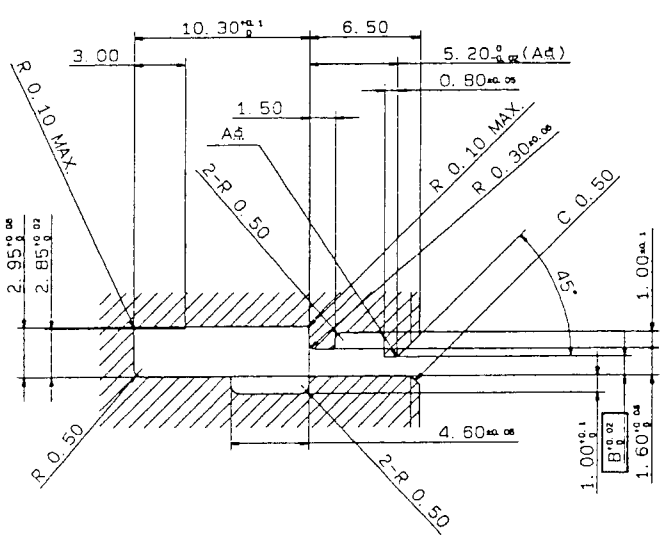
2. Terminal Inspection Gauge (Reference Specification)

2-1. Male



Wire Size	Crimp Gauge Variable (B)
0.35	1.22
0.5	1.27
0.75	1.37
1.0	1.42
0.35+0.35	1.52
0.35+0.5	
0.35+0.75	1.57
0.5+0.5	
1.5	

2-2. Female



Wire Size	Crimp Gauge Variable (B)
0.35	1.12
0.5	1.22
0.75	1.27
1.0	1.37
0.35+0.35	1.42
0.35+0.5	
0.35+0.75	1.52
0.5+0.5	
1.5	