＜ Contens ＞

＜Caution＞

1. Storage

a）Parts should be stored in a relatively dry, clean room indoors, place where they will not be exposed to direct sunlight, and maintained at normal temperature and humidity.(5 to 35℃and 45 to 85% relative humidity.)
Avoid carrying unpacked products. Carry and store in the containers.

b）Stacking large amounts of leads can entangle the part and or cause deformation by the weight. These will cause defective connectors.

c）Be careful that the connectors do not become interwined when separating units from the bundle.

2. Products handling and Transportation

a）Do not handle the harnesses roughly such as throwing them around.
b）Do not draw the harness bundle dragging on the floor.
c）Do not carry harnesses by the connectors. Carry them by holding the wires.
d）Do not handle them in such as way that pulls on the wire and puts unnecessary force on the connectors.
e）Use appropriate packaging cartons to avoid dust or moisture, and handle the cartons with care.

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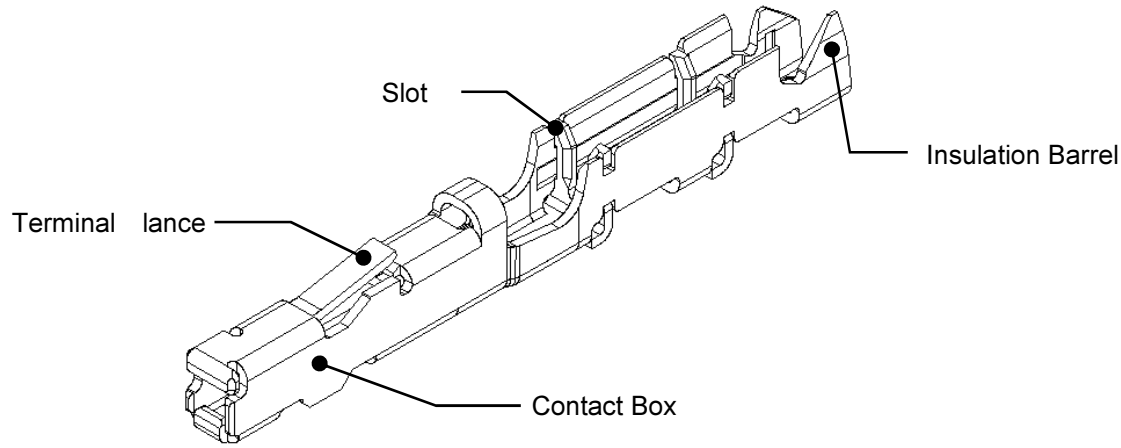
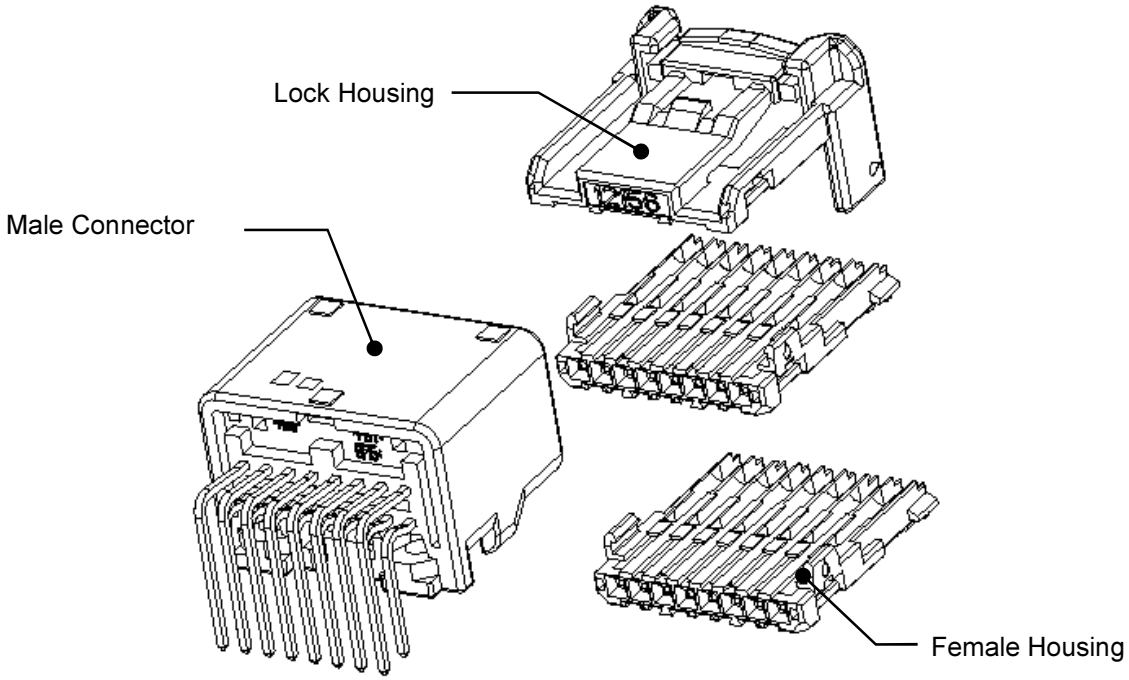
*：商標 Trademark

1. Product Names and Part Numbers

1, 1 Contact



1, 2 Housing



1．3 Product Part Numbers

1．3．1 Contact

Names	Applicable Wire	Remarks
.025 IDC Female Contact	IDCUS,CAVUS, MCVUS $0.3\sim0.5mm^2$	Female Contact is Plug Housing Assembled

1．3．2 Housing

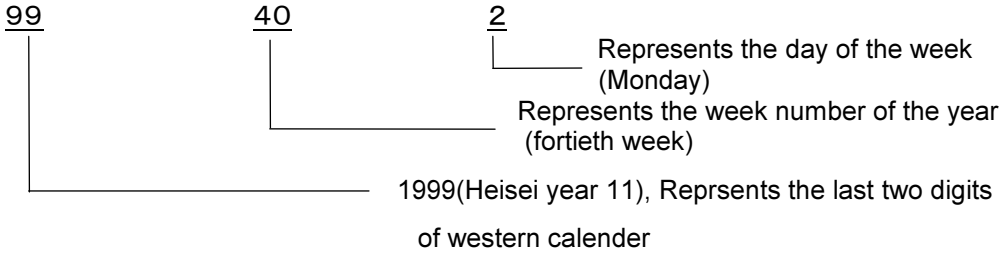
Product Part No.*	Description
1376350	025 SER 8POS. CAP ASSY H-TYPE（MALE CONNECTOR）
1717248	025 SER 4POS. IDC PLUG ASSY（FEMALE CONNECTOR）
1473802	025 SER 8POS. LOCK HOUSING
1318772	025 SER 12POS. CAP ASSY H-TYPE（MALE CONNECTOR）
1473898	025 SER 12POS. CAP ASSY V-TYPE（MALE CONNECTOR）
1717591	025 SER 6POS. IDC PLUG ASSY（FEMALE CONNECTOR）
1473810	025 SER 12POS. LOCK HOUSING
1318382	025 SER 16POS. CAP ASSY H-TYPE（MALE CONNECTOR）
1565476	025 SER 16POS. CAP ASSY V-TYPE（MALE CONNECTOR）
1318690	025 SER 8POS. IDC PLUG ASSY（FEMALE CONNECTOR）
1318694	025 SER 16POS. LOCK HOUSING
1717249	025 SER 10POS. IDC PLUG ASSY（FEMALE CONNECTOR）
1473808	025 SER 20POS. LOCK HOUSING
1318853	025 SER 24POS. CAP ASSY H-TYPE（MALE CONNECTOR）
1376111	025 SER 24POS. CAP ASSY V-TYPE（MALE CONNECTOR）
1746126	025 SER 12POS. IDC PLUG ASSY（FEMALE CONNECTOR）
1473804	025 SER 24POS. LOCK HOUSING
1318745	025 SER 32POS. CAP ASSY H-TYPE（MALE CONNECTOR）
1717250	025 SER 16POS. IDC PLUG ASSY（FEMALE CONNECTOR）
1473806	025 SER 32POS. LOCK HOUSING
1318384	025 SER 40POS. CAP ASSY H-TYPE（MALE CONNECTOR）
1376113	025 SER 40POS. CAP ASSY V-TYPE（MALE CONNECTOR）
1318691	025 SER 20POS. IDC PLUG ASSY（FEMALE CONNECTOR）
1318695	025 SER 40POS. LOCK HOUSING

* Note ：Part number is consisted from listed base number and 1 digit numeric prefix and suffix with dash. Refer to catalog or customer drawing for specific part numbers for each base number. When prefix is zero, zero and dash are omitted.

2. Contact and Housing Inspection

2. 1 AMP Product Sipping Inspection

We conduct inspections referring to specific standards, under strict statistical management , and according to our quality control regulations, to maintain an overall lot control. In principle, each package is marked with manufacturing date to facilitate tracing production history using inspection, manufacturing, and machinery adjustment records. Manufacturing date code(denoted as date code)is as follows:



2. 2 Customer Receiving Inspection

In addition, the customers should conduct at least the following receiving inspections based on the specific customer drawings.

＜Housing＞

Item	Inspection Description and Methods	Measuring Methods
Visual Inspection	1) Burrs, discoloring, and deformation defective shape	Visual Inspection
	2) Cracks, fissure, or chipping	
Functional Inspection	1) Assembly Corresponding Housing fit into assembly each other to allow them to lock.	By Hand

Each package is classified by date code and inspected for appearance for AQL 4% based on Level Ⅱ(MIL-STD-105)standards, and then inspected for the functions 5 pieces in each package. The lot May be accepted if all of them successfully pass the inspection.

＜Contact >

Item	Inspection Description and Methods	Measuring Methods
Appearance Inspection	1) Shape	Visual Inspection
	2) Plated condition	Visual Inspection

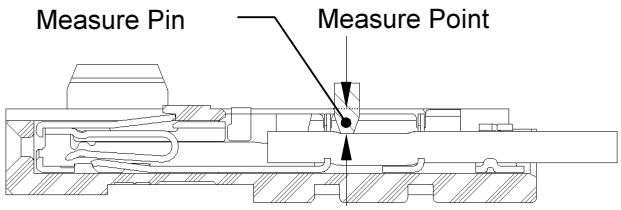
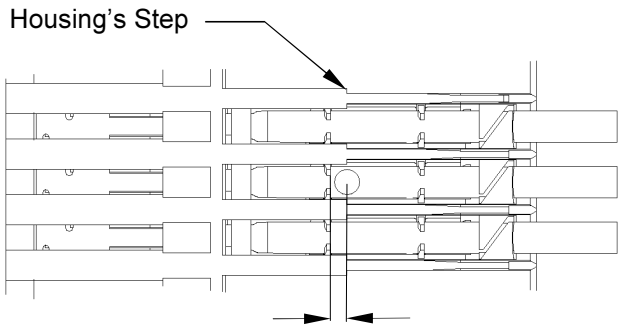
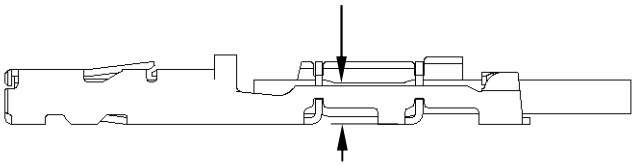
3. Harness Assembly Operation

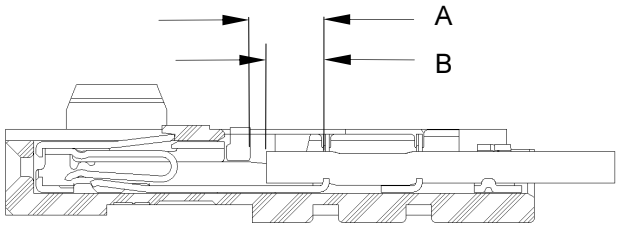
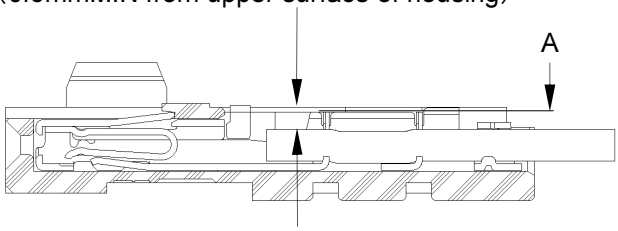
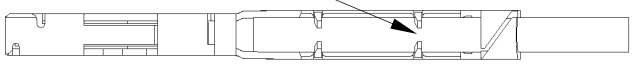
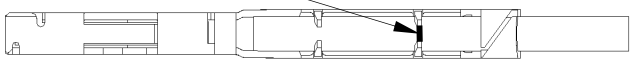
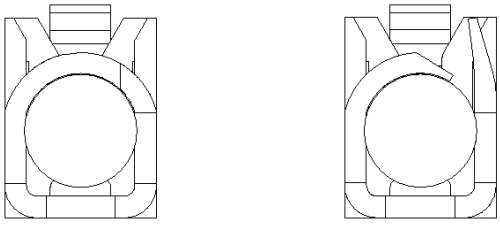
3. 1 Applicable Wire

Wire Size	No of conductors/ Diameter of a Conductor	Calculated Cross-sectional Are (mm^2)	Insulation Diameter (mm)	
			Nominal	Max
IDCUS,CAVUS,MCVUS 0.3 mm^2	7/0.26	0.37	1.1	1.2
IDCUS,CAVUS,MCVUS 0.5 mm^2	7/0.32	0.56	1.3	1.4

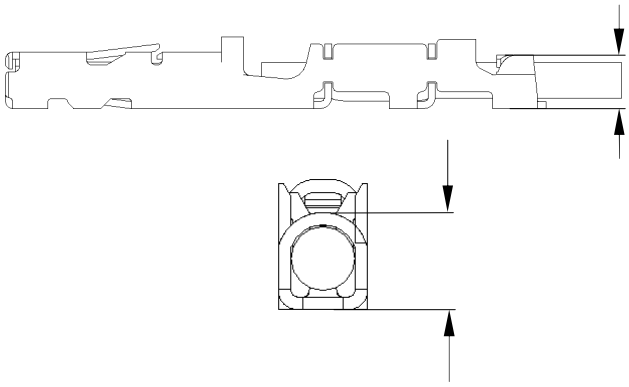
3. 2 Requirement and Standard Criteria for Acceptance

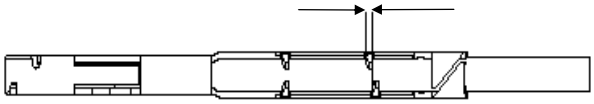
The performance of applicable product is guaranteed only when processed by proper application tooling described in this specification and/or AMP recognized ones.

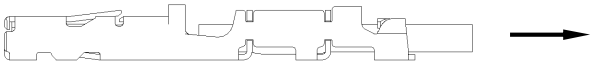
No.	Check Item	Requirement and Standard Criteria for Acceptance
1	Depth of Wire Insertion	Wire insertion depth shall be controlled within $0.7^{+0.3}_{0}$mm, when measured from the top edge of housing to the tool mark on the inserted wire.   Measure Point (0.7～1.1mm From Slot) Contact Only:$1.9^{0}_{-0.3}$mm From Bottom Surface  Note 1)Measure Tool Head Shapes、ϕ0.5～ϕ1mm Measure Pressure 1.96N MAX

No.	Check Item	Requirement and Standard Criteria for Acceptance
2	Wire End Protrusion Length	Wire Protrusion B size above the half with A size(1.5～3.0mm) 
3	Wire End Insertion Depth	Insulatoin of wire end shall be inserted lower than the A surface of housing. （0.5mmMIN from upper surface of housing） 
4	Exposure of Wire Conductor	Insulation is tightly closed **OK**  Broken hole of insulation **NG** 
5	Wire Retention over the Cavity	Inserted wires shall be retained in hold under insulation Barrel of the contact. Acceptable Rejectable  **OK** **NG**

<table>
<tr><th>No</th><th>Check Item</th><th>Requirement and Standard Criteria for Acceptance</th></tr>
<tr><td>6</td><td>Insulation Barrel Height</td><td>Barrel Height :1.8±0.1mm
But Item 9 tensile strength of wire termination satisfy.

（Reference）
<table>
<tr><th>Wire</th><th>Insulation Diameter mm</th><th>Barrel Height mm</th></tr>
<tr><td rowspan="2">0.3 mm^2</td><td>ϕ1.10</td><td>$1.80^{+0.05}_{-0.10}$</td></tr>
<tr><td>ϕ1.15</td><td>$1.85^{+0.05}_{-0.10}$</td></tr>
<tr><td rowspan="2">0.5 mm^2</td><td>ϕ1.30</td><td>$1.80^{+0.05}_{-0.10}$</td></tr>
<tr><td>ϕ1.35</td><td>$1.85^{+0.05}_{-0.10}$</td></tr>
</table>


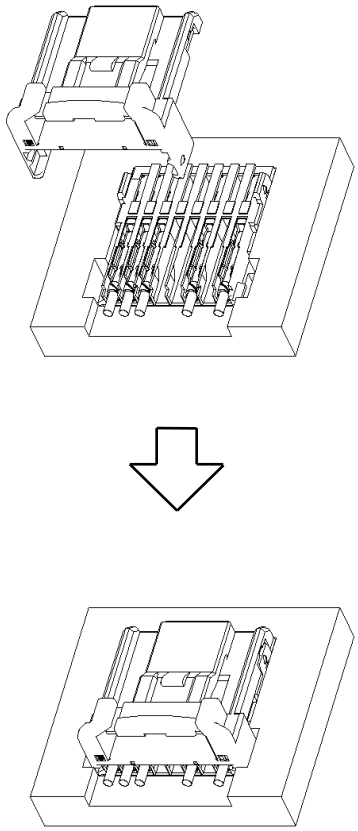
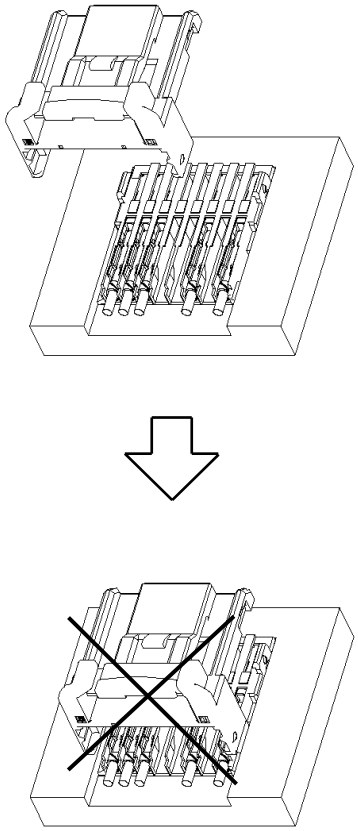
Note:Measure at Caliper</td></tr>
<tr><td>7</td><td>Position Uniformity of Upper Edges of Contact Slot.</td><td>After termination, deviation not exceeding Contact thickness(0.25mm)is allowable.
  </td></tr>
<tr><td>8</td><td>Damage of Contact and Housing</td><td>After termination, contact slot shall appear intact without evidence of tool mark of insertion tooling. However, tool mark and scraping on contact insulation Barrel shall be allowable.
（Plated surface is not peeled off）</td></tr>
</table>

No	Check Item	Requirement and Standard Criteria for Acceptance
9	Tensile strength of wire termination	0.3 mm^2=68.6N MIN 0.5 mm^2=88.2N MIN -Procedures- Measure the force. Operation Speed : 100mm/min. Horizontal Direction 
10	After termination, opening of contact	After termination, about the opening of contact permits the range which doesn't bring about hinderance to mating-unmating contact.
11	Others	Any contact once terminated, shall be not reused.

3．3 Connector Assembly Method

1）Lock Housing Assembly

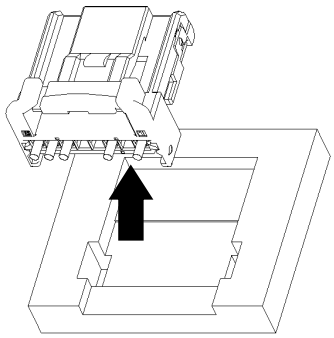
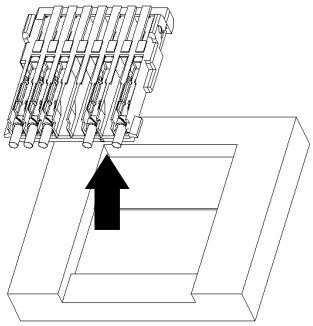
After termination, Lock Housing Assembly to upper housing on the jig.

Upper Housing Jig	Lower Housing Jig
	
OK	**NG**

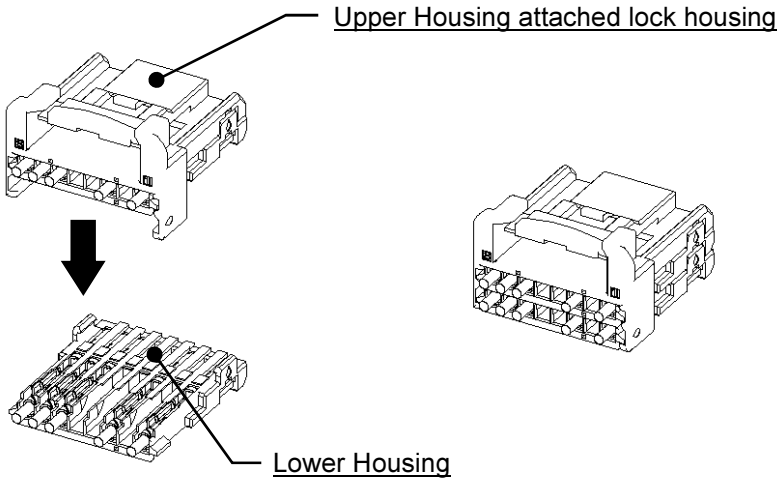
Note： Not Lock Housing Assembly on the Lower Housing Jig.
Break Lock Housing of Causal factor.
Also, always attach lock housing on jig.
Distinguish of the upper and lower housing sometimes becomes difficult.

2) **Connector Pick Up**

Pick up the upper housing to have attached to the lock housing and lower housing from the jig.

Upper Housing attached lock housing	Lower Housing
	

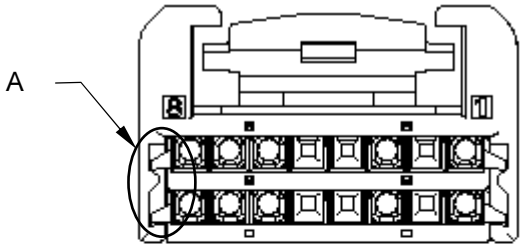
3) **Connector Assembly Ending**

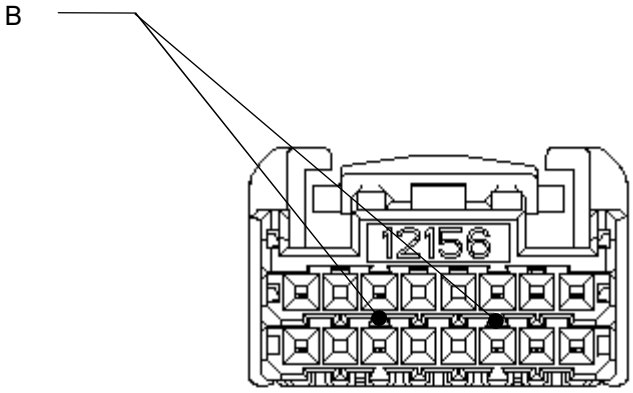


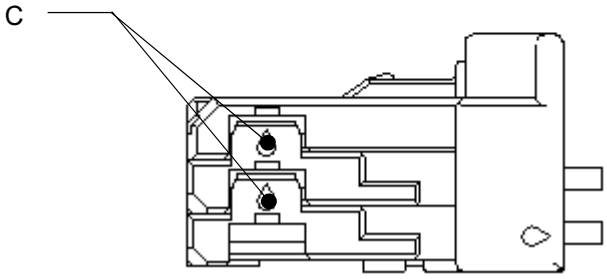
It assembles upper housing attached lock housing and lower housing. → **Assembly Ending**

3．4 After the Connector Assembly of Point to be Checked

1）Verify that the A,B,C lock is firmly locked.



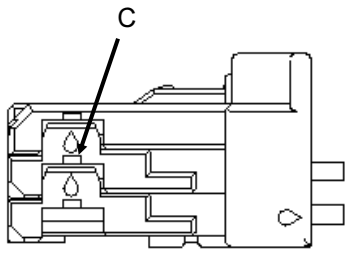
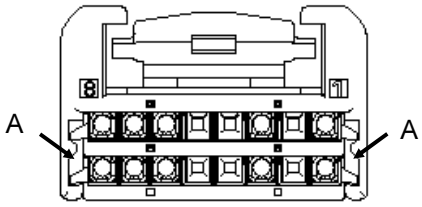




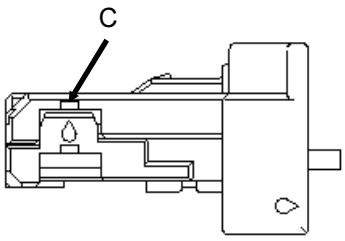
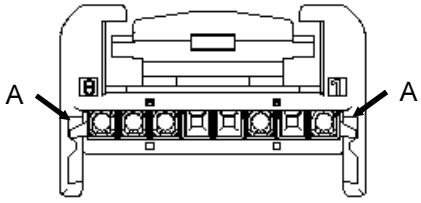
3. 5 Connector Disassembly

1) Lower housing disassembly

Insert an removing jig in the arrow.

①Tool in the lock of C	②Tool in the lock of A
	

2) Upper housing disassembly

①Tool in the lock of C	②Tool in the lock of A
	

Note: Connector of disassembly、injury by the removing jig be careful sufficiently.
Also, when it is difficult for lock to come, it doesn't take disassembly a wire in the pull by force.
The part sometimes damages.

3. 6 Extracting Contact

1) After working in the connector disassembly, It is use in the following fig.1, recommendation shape.

It holds jig to the direction of arrows until it hits a housing.

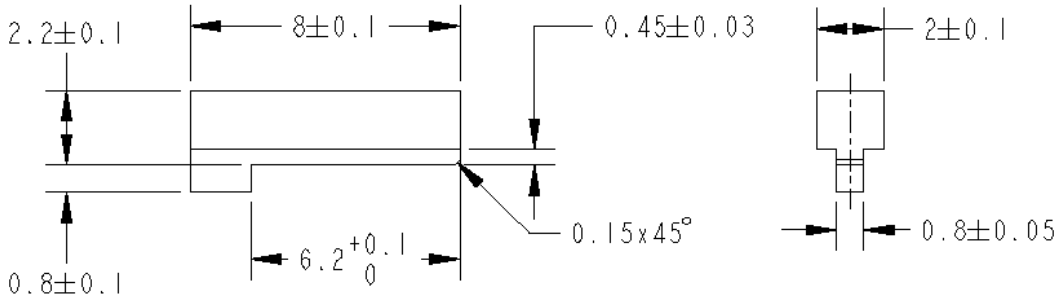
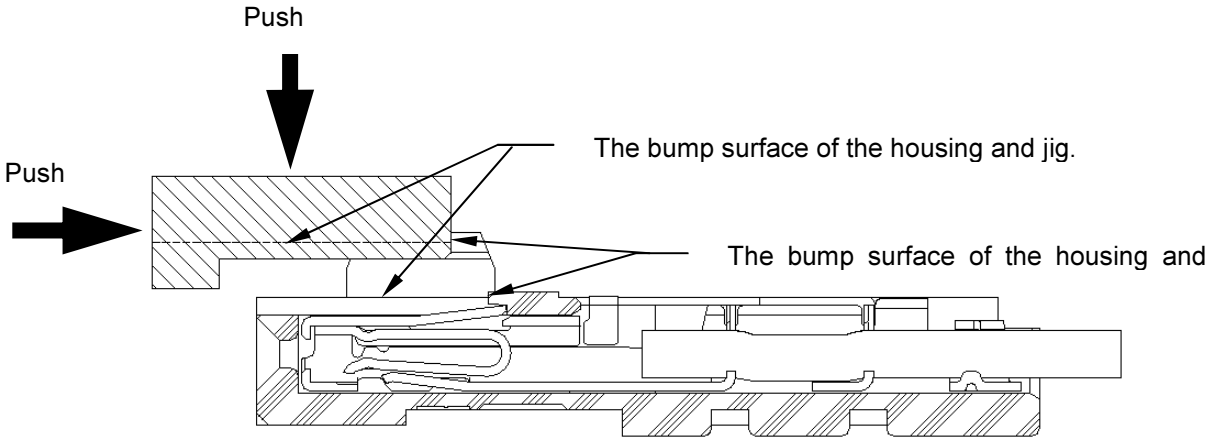
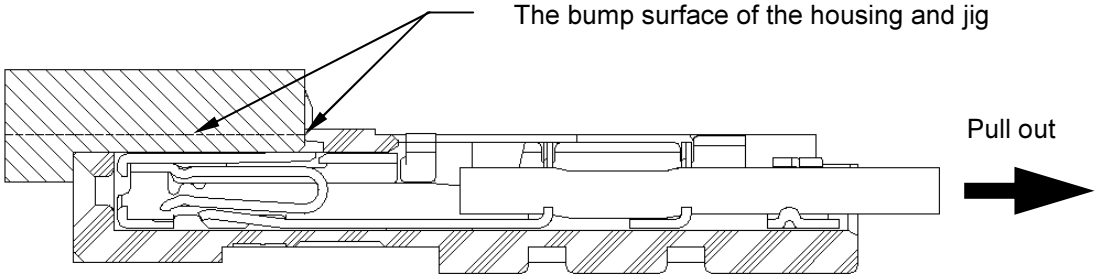


Fig.1 Recommendation shape



2) It pulls a wire while holding a jig, it pulls a contact to the direction of the arrow.



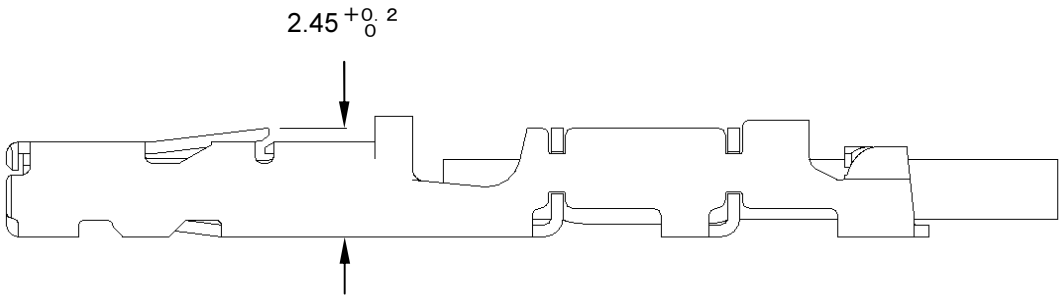
Note:

When it isn't pull out a contact smoothly, jig it confirms whether or not it is surely put in the hold. It pulls to the direction of a after pushing a wire once.

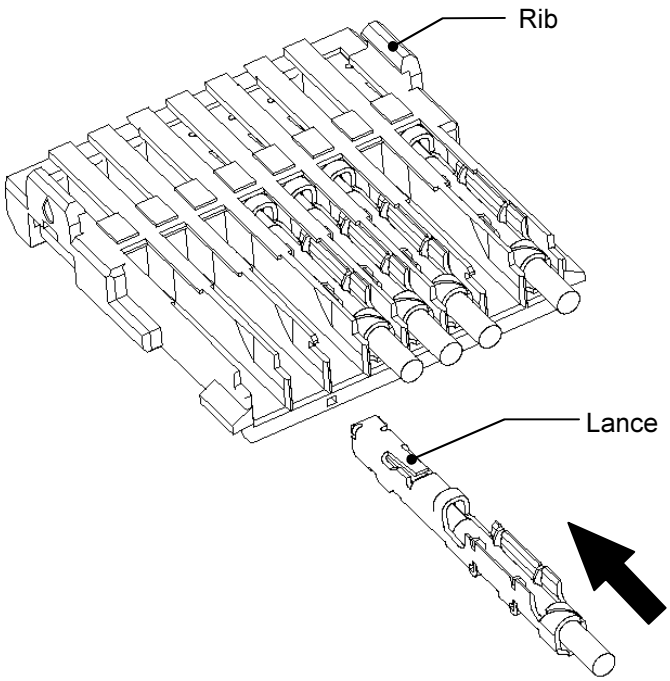
When pulling by force, it causes the damaging of contact and housing, the efficiency decline.

3．7 Contact Insertion Method

1) Below is a confirm that the lance height $2.45^{+0.2}_{0}$



2) Before loading the contact onto housing cavity, make sure the orientation of the contact to be inserted into the housing cavity. Then, insert the contact into the cavity as far as it goes until it stops at the bottom of the housing cavity. When the contact is set engaged in position, a small clicking sound is heard at the moment of contact locking.
When inserted, just pull back the wire lightly to see if the contact is locked in position.
If the contact dose not come out, it shows that the contact is locked.



Note: When working in the replacement of the contact, when lance is not fixed height the retention force sometimes declines remarkably
Doesn't touch a contact leaf and slot, be careful.
When the contacts out of the housing、don't keep in the condition of being just as it is and put a contact in the housing promptly

4. Mounting On Vehicles

4. 1 Acceptance Inspection

A minimum of the following points must be checked.

a) Acceptability of contact mounting to the housing.

b) Contact cracks, defects, discoloring, and deformation, etc.

c) Housing cracks, defects and discoloring, etc.

4. 2 Mating Connector

a) Mating action should made straight along the mating axis. Then, confirm that the locking mechanism works correctly, a small clicking sound is heard. Pull the connector outward lightly after making fittings to make sure they are locked.

Note: Do not repeat mating/ unmating connectors if not necessary.

4. 3 Unmating Connector

Hold the housing locking lever and press downward. While pressing downward, pull the connector straight out.

Note: Do not pull the connector by the wire. pull the connector straight.

5. Conduction Inspection

a) Corresponding tab or its equivalent should be used as a probe to check the entire circuit within the connector.

b) Inserting an inspection probe into the terminal is strictly prohibited, since it may cause deformation of the fitting.