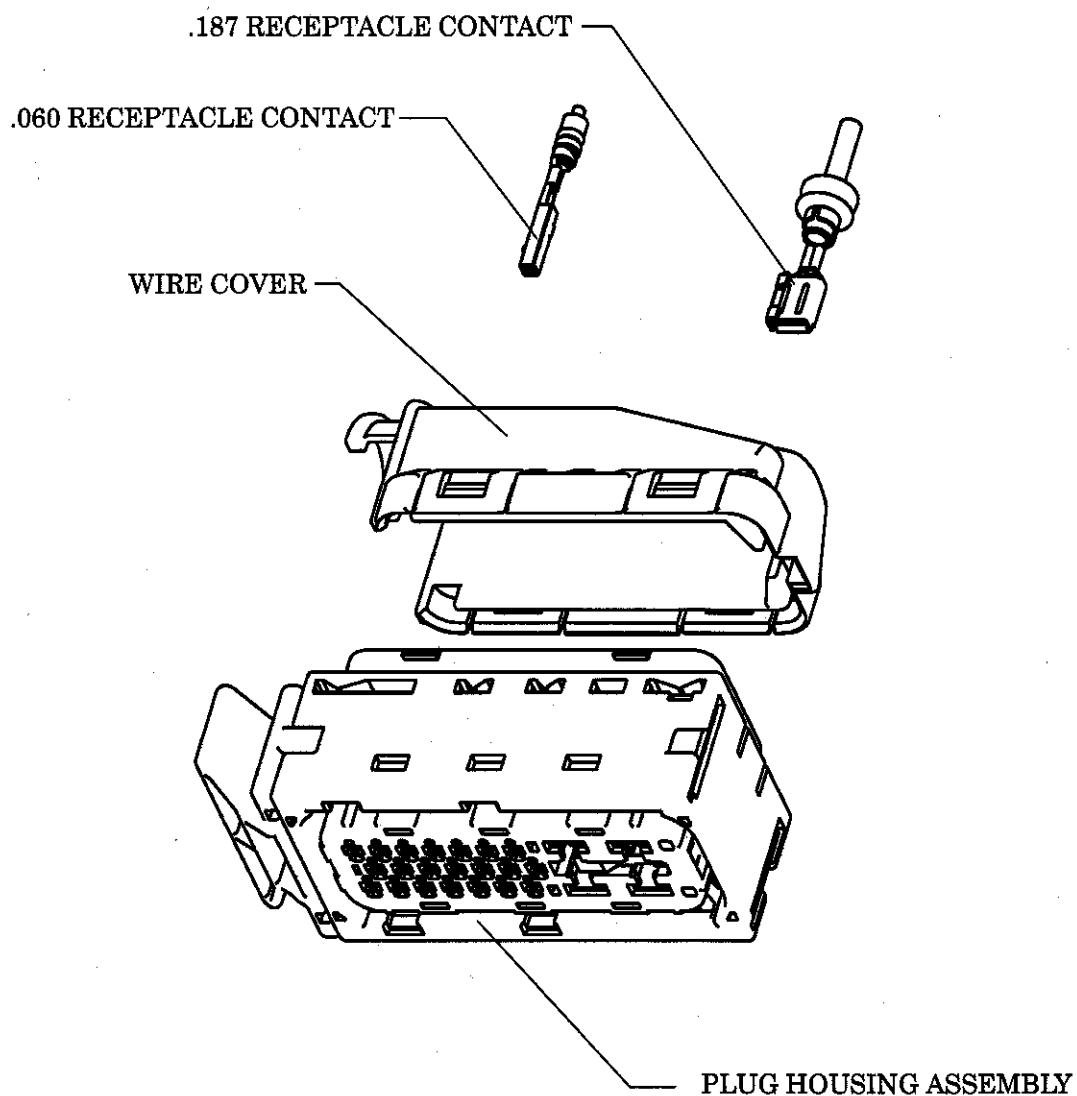


**1. PART NAME AND PART NUMBER LIST****1.1 PART NAME**

**1.2 PART NUMBER**
**1.2.1 CONTACT**

NAME	AMP PART NUMBER	APPLICABLE WIRE						
		WIRE TYPE	0.3	0.5	0.85	1.25	2	3
.060 RECEPTACLE CONTACT	900293-X	AVSS/CAVUS OR AVSSX/AESSX	○	○	X	X	X	X
.187 RECEPTACLE CONTACT	175090-X		X	X	○	○	X	X
	175091-X		X	X	X	X	○	○

**1.2.2 RUBBER PLUG**
**I) FOR .060 RECEPTACLE CONTACT**

CRIMPING TYPE : 3 1 6 8 6 7 - X (0.3~0.5SQ)

9 6 7 0 6 7 - 1 (0.85SQ)

CAVITY PLUG : 1 4 7 3 2 3 4 - 1

**II) FOR .187 RECEPTACLE CONTACT**

NOT AVAILABLE

**1.2.3 HOUSING**

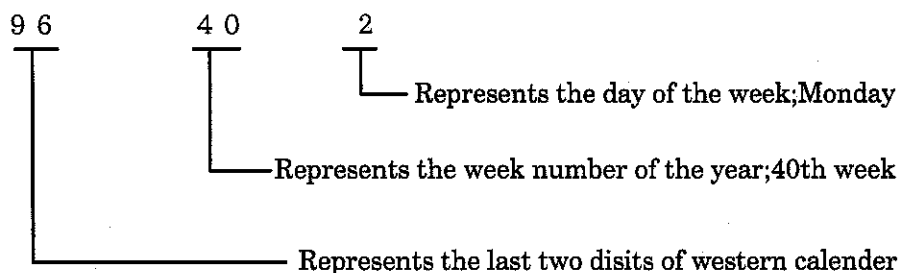
POSITION	NAME	AMP PART NUMBER	APPLICABLE MATING HOUSING PART NUMBER
2 5	PLUG HOUSING ASSEMBLY	3 1 6 8 7 4 - X	3 1 6 8 2 9 - X
	WIRE COVER	3 1 6 8 7 3 - X	3 1 6 8 7 4 - X

## 2. CONTACT AND HOUSING INSPECTION

### 2.1 AMP Products Shipping 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 code 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.

<Contact>

Item	Inspection Description & Methods	Measuring Methods
Appearance Inspection	1) Shape	Visual inspection
	2) Plated condition	Visual inspection
	3) Reeled condition	Visual inspection
Dimension Inspection	1) Wire barrel width & height	Vernier Calipers
	2) Insulation Barrel width & height	Vernier Calipers

When reels are delivered, each reel is classified by date code and inspected visually for AQL 4% based on Level II (MIL-STD-105) standards, including additional inspection of 5 contacts on reel ends. The lot may be accepted if all reels successfully pass the inspection.

## &lt;Housing&gt;

Item	Inspection Description & Methods	measuring Methods
Visual Inspection	1 ) Burrs,discoloring & deformation	Visual inspection
	2 ) Cracks,fissure,or chipping	Visual inspection
Functional Inspection	1 ) Mating/Unmating Corresponding housings fit int each other to allow them to lock.	by hand

Each package is classified by date code and inspected for appearance for AQL 40% based on Level II (MIL-STD-105) standards, and then inspected for the functions of 5 pieces in each package. The lot may be accepted if all of them successfully pass the inspection.

### 3. CRIMPING OPERATION

Any crimping of contacts must be performed by using appropriate AMP tools according to the applicable Instruction Sheet and Specification.

The part numbers and date code (such as the above example;96402) should be recorded for future reference.

#### 3.1 Storage and Handling

- 1 ) Avoid Carrying unpacked products. Carry and store products in the containers.
- 2 ) Carrying reels by only one of flanges can damage the reel and makes it unusable, or unloadable onto crimping machines. Be sure to carry a reel by holding both flanges.
- 3 ) Do not place reels in places with high humidity. Reels should be stored in a relatively dry, clean room where they will not be exposed to direct sunlight, and maintained at normal temperature (5 to 35°C) and humidity (45 to 85%).
- 4 ) If reels are temporarily taken off the crimping machine when suspending operation, tie the reel end to the flange with string to prevent the reel from loosening.

#### 3.2 Crimping Procedure Control

- 1 ) When stripping the wire, care must be taken not to nick, cut or scrape the conductors.
- 2 ) Wire insulation stripping must be taken according to applicable Application Specification.

3 ) Crimp height must be measured with Micrometer for measuring the crimp height.

### 3.2.1 Application Specification

An instruction manual for the crimping procedure control should be prepared referring to the following documents.

.060 CONTACT : 114-5216

.187 CONTACT : 114-5126

### 3.2.2 Crimping Data

Applicator numbers and dimensions are listed below. Be sure to refer to the following table before starting the operation.

#### I ) .060 RECEPTACLE CONTACT

Stripped Contact Part Number	Applicator Part Number	Wire Size (mmsq)	Wire Barrel Crimp			Insulation Barrel Crimp Width (mm)	Crimp Tensile Strength (kgMin)
			Width (mm)	Height (mm)	Disk		
900293-X	234749-2	0.3	1.78	$0.94 \pm 0.05$	C	3.2	8
		0.5		$1.03 \pm 0.05$	B		9

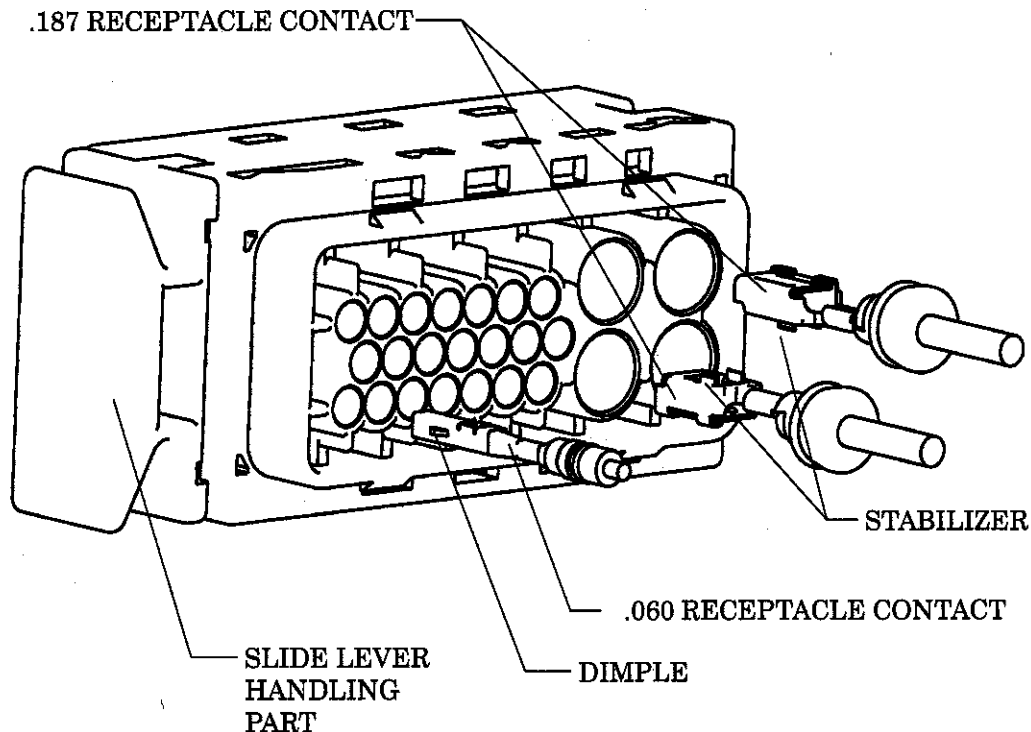
#### II ) .187 RECEPTACLE CONTACT

Stripped Contact Part Number	Applicator Part Number	Wire Size (mm <sup>2</sup> )	Wire Barrel Crimp			Insulation Barrel Crimp Width (mm)	Crimp Tensile Strength (kgMin)
			Width (mm)	Height (mm)	Disk		
175090-X	912996-2	0.85	2.54	$1.61 \pm 0.05$	B	4.83	13
		1.25		$1.75 \pm 0.05$	A		18
175091-X	912997-2	2	3.30	$1.95 \pm 0.05$	B	5.84	27
		3		$2.26 \pm 0.05$	A		30

#### 4. HARNESS ASSEMBLY OPERATION

##### 4.1 Contact loading into Housing and Double Locking

###### 4.1.1 Contact loading into Housing



Contact insertion procedure is given here. Please see the figure above for your understanding.

###### I ) .060 RECEPTACLE CONTACT

Keep the Slide Lever's handling part and the Receptacle Dimple on the same side. Then, insert the Contact fully into the Housing until clicking(locking) sound is made.

###### II ) .187 RECEPTACLE CONTACT

Face the Contact's stabilizer side each other. Then, insert the Contact fully into the Housing until clicking(locking sound) is made.

**NOTE**

*Please design the circuit with a pair(s) of two .187 Receptacle Contact as shown in the figure above. Two .187 Receptacle Contact is preferred to be lined vertically.*

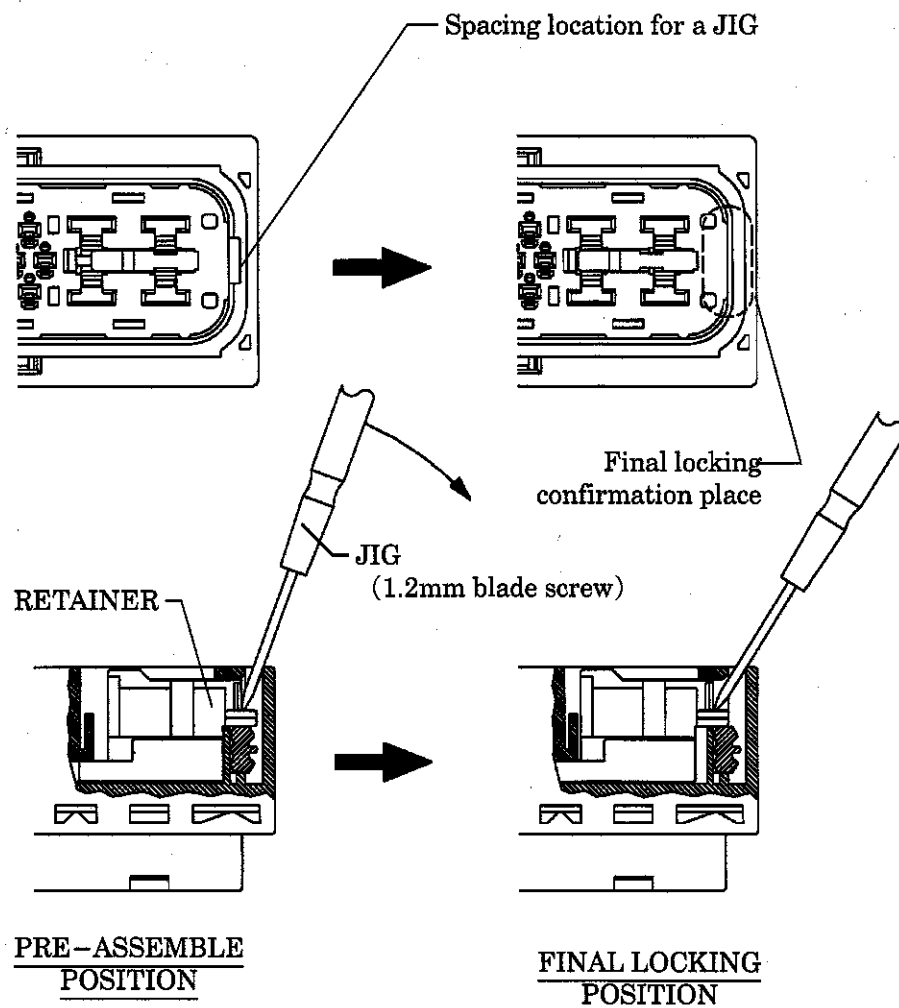
*If the cavity is not filled in a vertical pair, there is a possibility that unables the half mating check mechanism by Retainer as stated next page.*

## 4.1.2 Contact half mating check mechanism

## 1) Retainer final locking

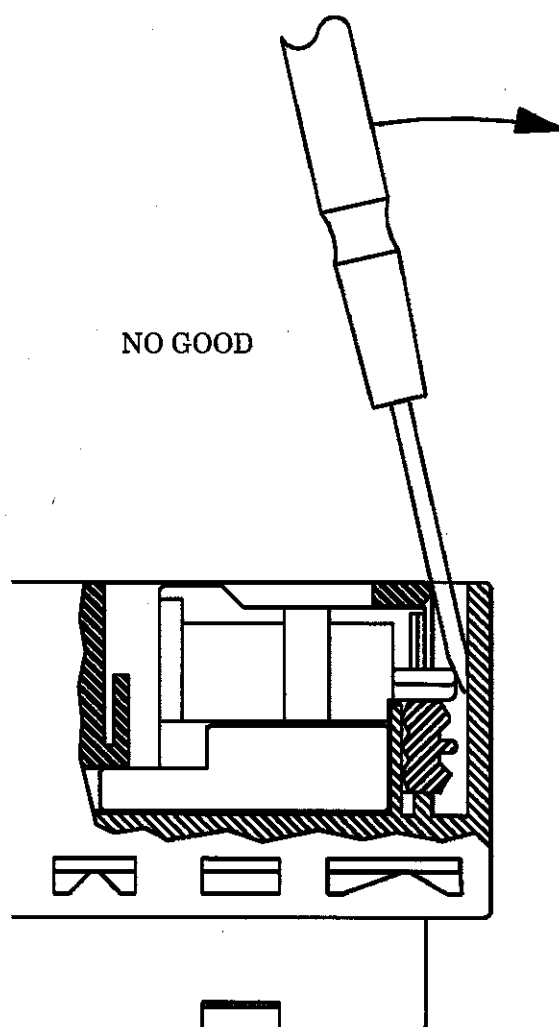
Please see the figure below first. Place a 1.2mm blade screw driver as a Retainer locking jig in the specified area to make the final lock. If you feel harder to put the retainer into the final position, please stop working the process immediately. Check each contact position in the housing. It is likely to have a contact(s) not fully seated in the housing. If so, please insert the contact(s) fully into the housing. Then start the final locking operation again. But please do not force to finish the retainer final locking to avoid jig bending and/or any damages on housing if you face any such difficulties.

When the retainer is fully seated in the housing, spacing location for jig will be disappeared.



**CAUTION**

*Do not put a Jig into a space specified in the picture to avoid any damages on seal ring and not lose water tightness while final locking procedure takes place.*



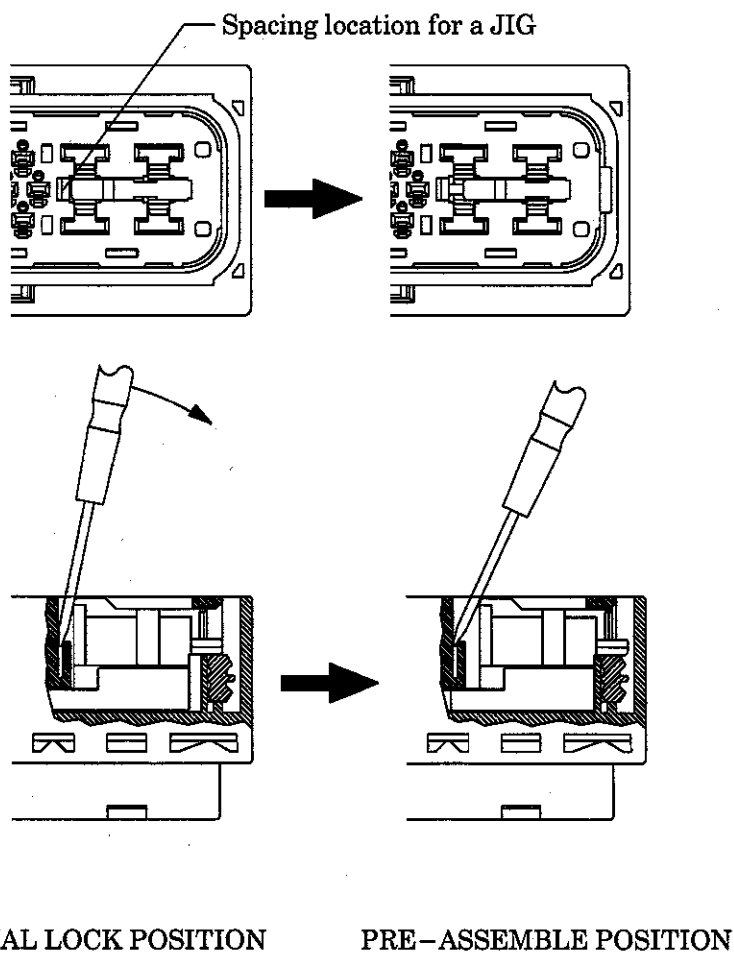
NOT RECOMMENDED

#### 4.1.3EXTRA A CONTACT FROM A HOUSING

Please follow the instruction as below when you are required to pull out a contact(s).

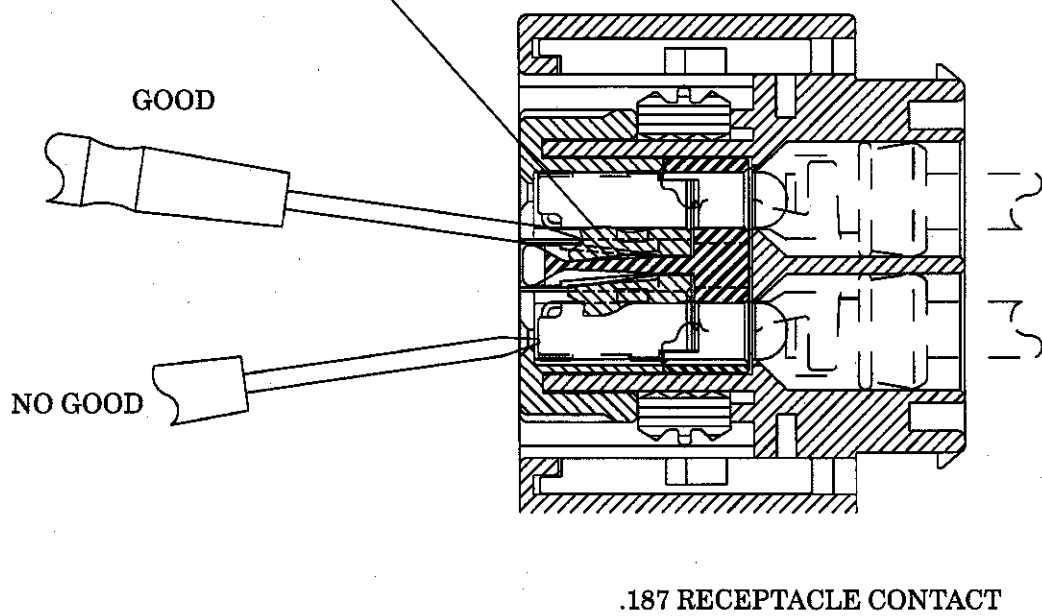
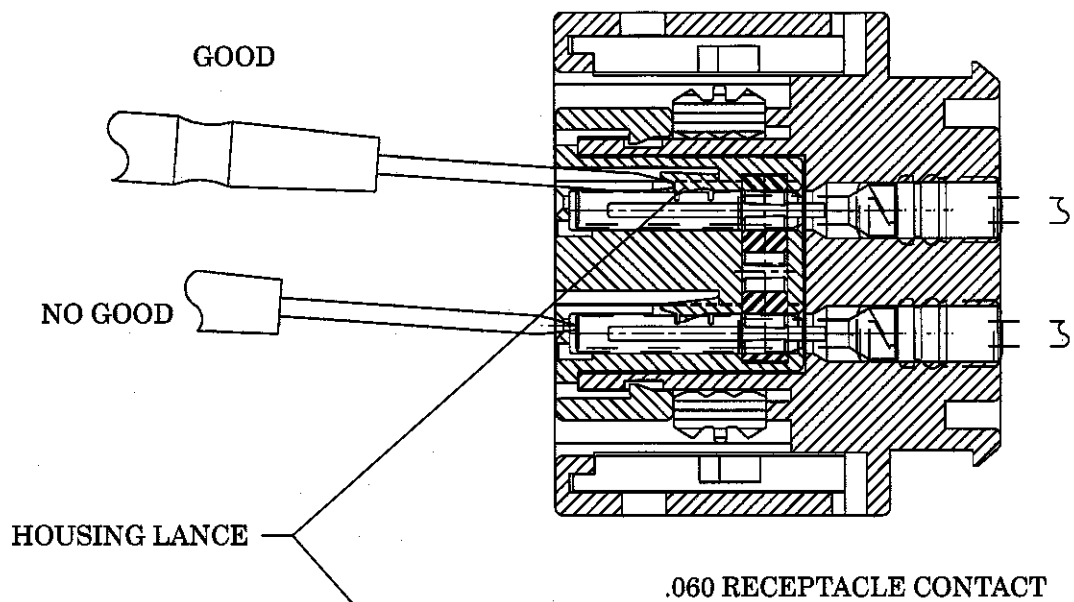
##### 1) How to unlock a Retainer from final lock position

Put a JIG(recommended;1.2mm blade screw driver) into the specified space below. Apply the jig to unlock the retainer form final position to pre-assemble position.



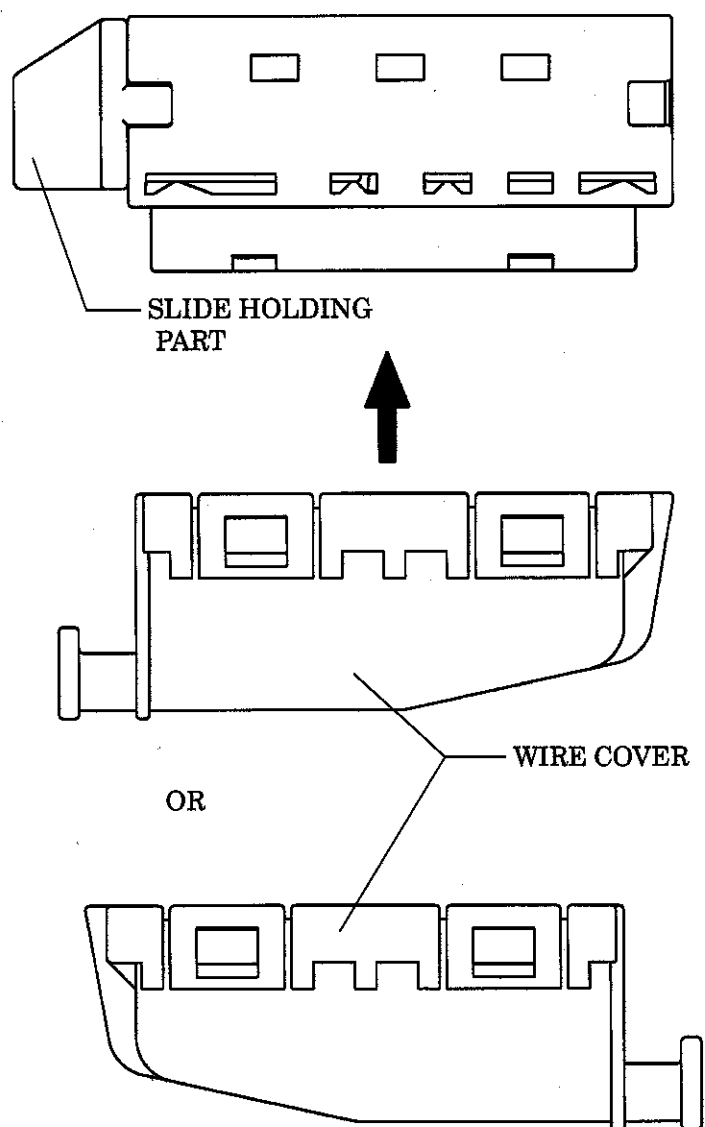
## II) How to unlock a Housing Lance

From the mating side of Connector, insert a Jig (recommended; 1 or 1.2mm blade screw driver) into a specified area in a housing cavity below. Put the tip of the Jig onto a Lance as specified in the picture and unlock the Lance from a contact. Then, pull out the Contact from the Housing. But do not put the Jig into the inside of the contact to avoid any electrical performance loss.



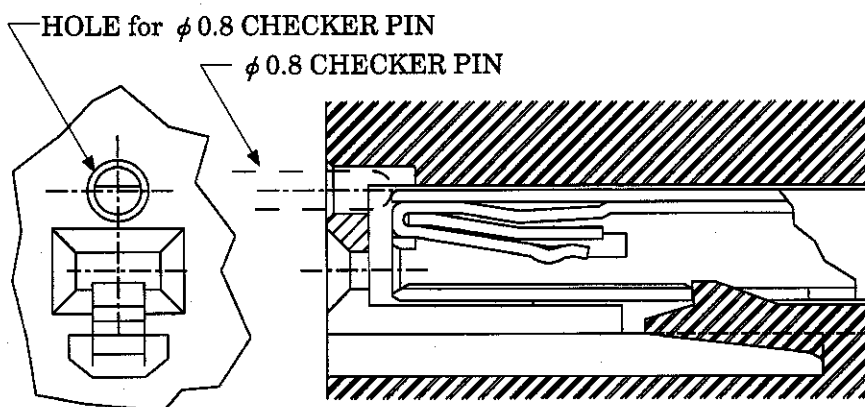
#### 4.2 Wire Cover setup

Put Wire Cover onto Plug Housing with the arrow direction. The Wire Cover can be put either side of left or right from Slide Lever Holding Part as shown below.



#### 4.3 Electric Circuit Check

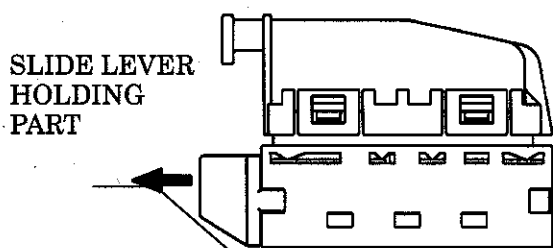
The  $\phi 0.8$  checker pin should be inserted into proper hole as shown in following figure.

**NOTE**

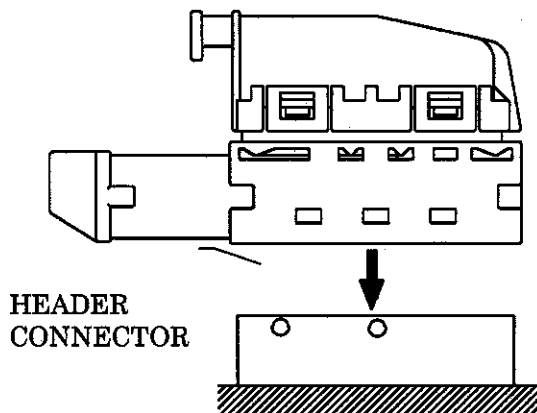
Never insert the checker pin in to the contact insertion hole to avoid any electrical performance loss.

## 5. MATING PROCEDURES

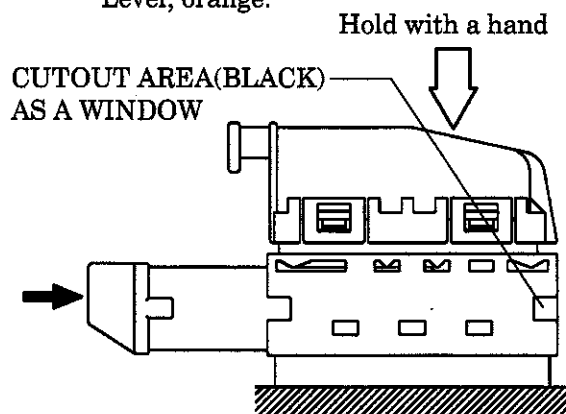
- (1) Pull out the Slide Lever for the arrow direction until the Lever stops.



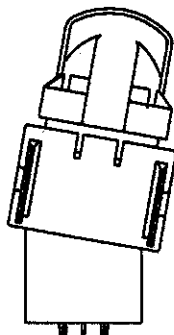
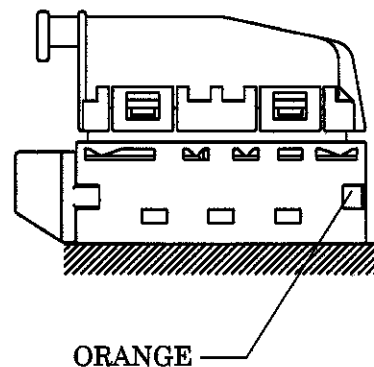
- (2) Push Plug Assembly Housing onto a Header Connector until it is fully seated.



- (3) After fully seated, push in the Lever for the arrow direction until it stops with holding the plug housing in a hand for keeping horizontal. Unless the Lever is fully seated, a Cutout Portion below will be left black and appearance of the Lever, orange.



- (4) Mating completed. You will see a part of Lever, orange form the Cutout area.

**NOTE**

\* Plug Assembly Housing might stop slantingly when it is seated with too much force. In this case, the housing shall be released once, and restart the mating operation.