

## 1. Part Name and Part Number

### 1.1 Housing

TE Part Number*	Part Name
1376366	.025 SER 8POS. CAP ASSY H-TYPE (Male Connector)
1376368	.025 SER 8POS. PLUG ASSY (Female Housing)
1565749	.025 SER 4POS. CAP ASSY H-TYPE (Male Connector)
1473672	.025 SER 4POS. PLUG HOUSING (Female Connector)

Fig.1

\*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.

### 1.2 Contact

TE Part Number	Part Name	Wire Type (○:Applicable, —:Not Applicable)			
		Type	0.22	0.3	0.5
1123343-1	.025 RECEPTACLE (Female Contact)	CAVUS	○	○	○
		CAVS/AVSS/AVSSH	—	○	○
		CAVS	○	○	○

Fig.2

## 2.Components View

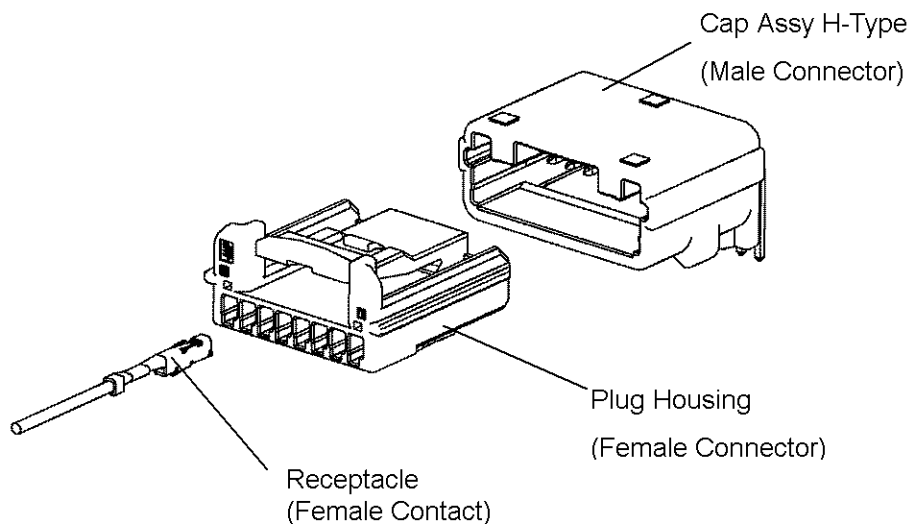


Fig.3

### 3. Customer Receiving Inspection

We conduct inspections according to our quality control regulations to maintain an over all LOT control. In addition, the customers should conduct receiving inspections based on the specific customer drawings.

#### 3.1 Terminals

Items	Inspection rule and the way	Measurement Tool
Visual Inspection	1. Configuration And Appearance	Visual
	2. Plating Finish	Visual
	3. Reeling Status Of Strip Terminals	Visual
Dimensional Inspection	1. Width Of Wire Barrel	Calipers <sup>(1)</sup>
	2. Width Of Insulation Barrel	Calipers <sup>(1)</sup>

**NOTE** (1) ;Calipers are defined as vernier calipers or equivalent measuring tools, having the identical precision measurement level.

Fig.4

Upon Receiving, the reeled terminal products should be classified by manufacturing date codes and put under the inspection in accordance with the inspection level **II** of MIL-STD-105 at acceptable quality level of 4.0%, visually and dimensionally to check the first five terminals in reel. Acceptable of the products is verified by proving the products meeting the specified requirements.

#### 3.2 Housing

Items	Inspection rule and the way	Measurement Tool
Visual Inspection	1. Burrs, Discoloration and Deformation	Visual
	2. Cracks, Breakage and Chipping of	Visual
Functional Inspection	1. Mating Check to see if the connector mate smoothly with Gas Generator, and can not be extracted.	Tactual

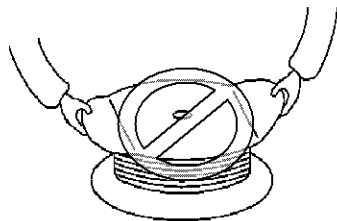
Fig. 5

The product housings submitted to inspection are classified by the manufacturing date code, and put under the inspection in accordance with the inspection level **II** of MIL-STD-105, at acceptance quality level of 4.0% visually, and functionally to the randomly selected five pieced out of the lot. Acceptable of the products is verified by proving the products meeting the specified requirements.

**4.Safekeeping and Carriage Management**

4.1 Reeled Terminals

- (1) Avoid leaving or carrying the terminal reel in an open area without wrapping it in proper material.
- (2) Do not lift up and carry the terminal reel by gripping one the side of reel, this may result in damage to the reel, and terminal before use.



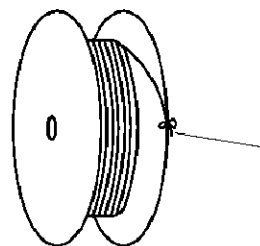
Do not lift up laterally holding one side only.



Acceptable

Fig.6

- (3) Avoid storing terminal reels in a moist area or dusty place. Stock terminal in a comparatively dry and clean place where the temperature of 5~35°C, with relative humidity ranging between 45~85% is maintained without keen influence of the direct sunlight.
- (4) When the terminal reel is not in use for removing the terminal reel from the machine, fasten the end of terminal strip onto the edge of the reel with use of proper string or wire.



Tie strip end with a wire neatly

Fig.7

4.2 Housing

- (1) It is desired that the products are placed where the temperature is ranging between 5~35°C with the relative humidity ranging between 45~85%.
- (2) It is advised that leaving the products in open air for a long time tends to get contaminate by dust and particles.  
Leaving under the open air for a long time should be forbidden from this point of view.
- (3) Do not drop or shock the housing when carrying it.

### 5. Fixing Housing and PC Board

Insert the contact of the male connector into the hole of PC Board. Then after fixing the housing and the board with a screw, solder the contacts. And take care of the following at the work.

- (1) See the customer drawing for the PC Board dimensions.
- (2) Do not deform the contact (PC Board side), otherwise the male connector can not be fixed on the P.C. Board.
- (3) The fixing should be made with the proper type of screw and torque. Recommended Screw : JIS B1115,B1122,TAPPING SCREW, PAN HEAD,CLASS2,M3x6, Torque:0.4N · m MAX. (Reference) But, torque for operation should be provided respectively.
- (4) The heat of soldering should cause no discoloration or deformation.
- (5) In addition, both sides (mating side and solder side) of the contact and the housing must not be damaged or deformed by the operation. No foreign substances are permissible in the mating area.

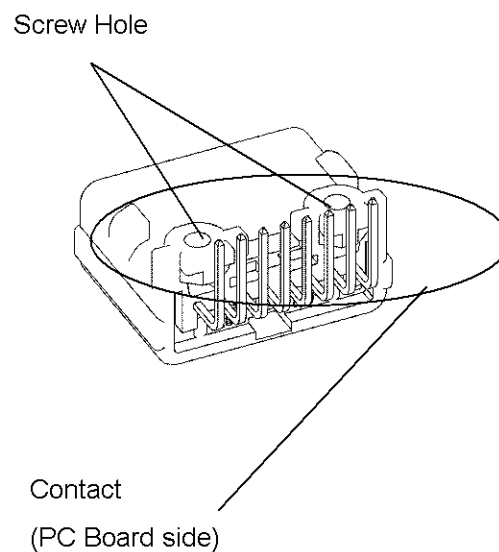


Fig.8

## 6.Crimping Operation

Using TE specified tooling in accordance with the Procedure specified in applicable Instruction sheet must do crimping of contacts.

### 6.1 Wire

#### 6.1.1 Applicable Wire

See Fig.2 for applicable wire.

#### 6.1.2 Notes for Stripping of Wire End

Wire end must be stripped without nick, cutoff, or damage of wire strands.

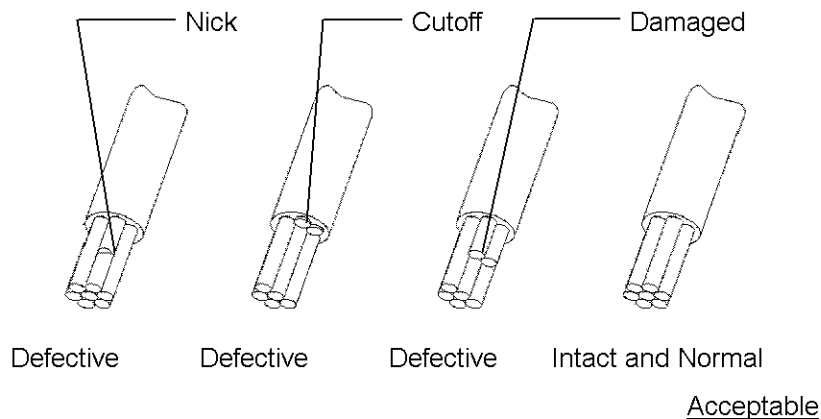


Fig.9

### 6.2 Operation of Crimping Machine

In the case of “.025 Receptacle Contact”, see instruction sheet “412-5022 (separate volume)” for automatic terminating machine.

### 6.3 Crimping Specification

In the case of “.025 Receptacle Contact”, see application specification “114-5250(separate volume)”.

### 6.4 Storage and Handling of Crimped Products

- (1) Store the products in a clean, dry area cover with proper sheet or paper when placed in an open area until the next day.
- (2) Crimped leads should be processed in bundles of less than 100 pieces. In addition, care should be taken in case the leads catch together or be tangled, causing damage of the products (Specially the lance of .025 Receptacle Contact).
- (3) Avoid stacking and piling up the in-process products in large volume. Deformation of the contact will result in malfunction of contacting parts electrically.

6.5 Management of Crimped In-process Products

6.5.1 Inspection of product

Inspection of crimped, in-process products must be performed by the lot unit consisting of the product groups manufactured during the one continuous operation under the same set-up adjustment of the crimping machine in the identical manufacturing conditions, or the groups of the produced products during one work day operation.

The inspection should be performed according to the criteria shown in the listing below.

Inspection	Timing	Inspection Item
Inspection on Products made under initial set up condition of applicator	At the time of completion of initial set-up of applicator to crimp the contact.	Visual inspection and Dimensional Inspection on all items listed in Fig.11
Lot Inspection	Before to start a routine operation each work day	
		During continuous operation

Fig.10

Items	Inspection Standard And The Way	Measurement Tool
Visual Inspection	1. Loose-out of the wire conductors out side the wire barrel crimp, and cut-off of conductors.	Visual
	2. Defective crimped form of contact(forming up of bell mouth, and wire end protrusion length)	Visual
	3. Defective wire barrel bottom are forming (burrs appearing, inclusive).	Visual
	4. Miss gripping of insulation barrel crimp on wire insulation.	Visual
	5. Deformation of contacting area of contact.	Visual
Dimensional Inspection	1. Dimensions of Cut-off Tab Length.	Calipers <sup>(1)</sup>
	2. Deformation of contact (Bend-up, lateral bend and twisting).	Magnifying Glass
	3. Crimp Height.	Micrometer
	4. Front and rear Bellmouth forming.	Calipers <sup>(1)</sup>

**NOTE** (1); Calipers are defined as vernier calipers or equivalent measuring tools, having the identical precision measurement level.

Fig.11

**7.Manufacturing Harness Assembles**

7.1Confirmation Of Temporary Assembled Condition.

- (1) Confirm the position of the hinge part. Confirmation that the hinge part is in temporary assembled condition or opened condition in the case.

If being the condition that the hinge part was closed, Using a driver such as 1mm blade screw one, Turn up hinge part like the following figure and make it temporary assembled condition or opened condition.

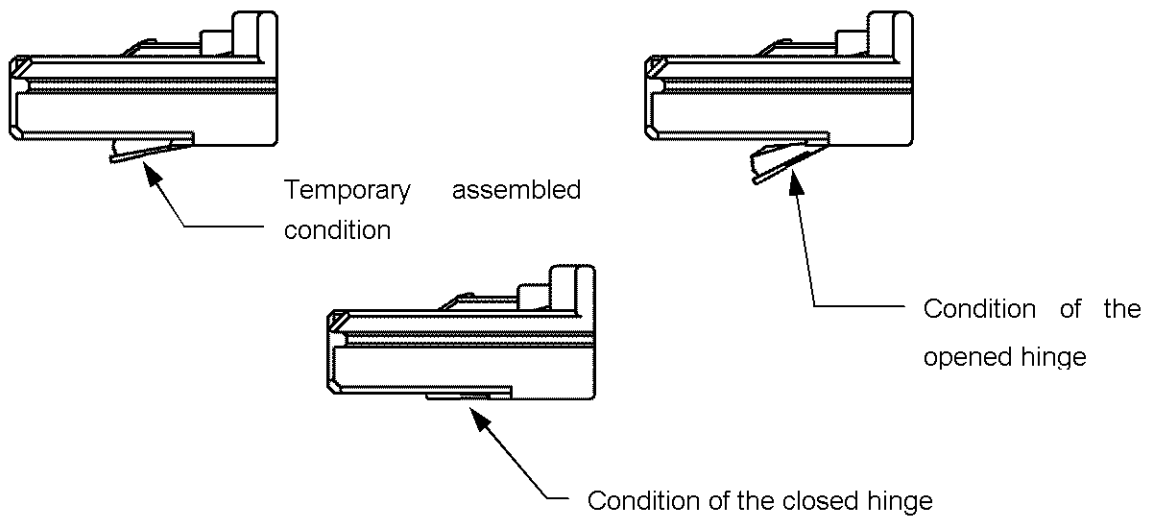


Fig.12

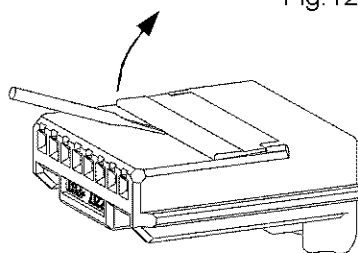


Fig.13

- (1)Confirm type of plating on the contact. It must be the same type of plating on the female contact and on the male contact. The type of plating can be seen on the customer drawing.

**NOTE** Connection between different types of contacts should never be allowed.

Insert the contacts into the housing with same direction as shown in Fig.14. The insertion is finished when the lance (Contact Lance) is locked and the contact can not be more inserted.

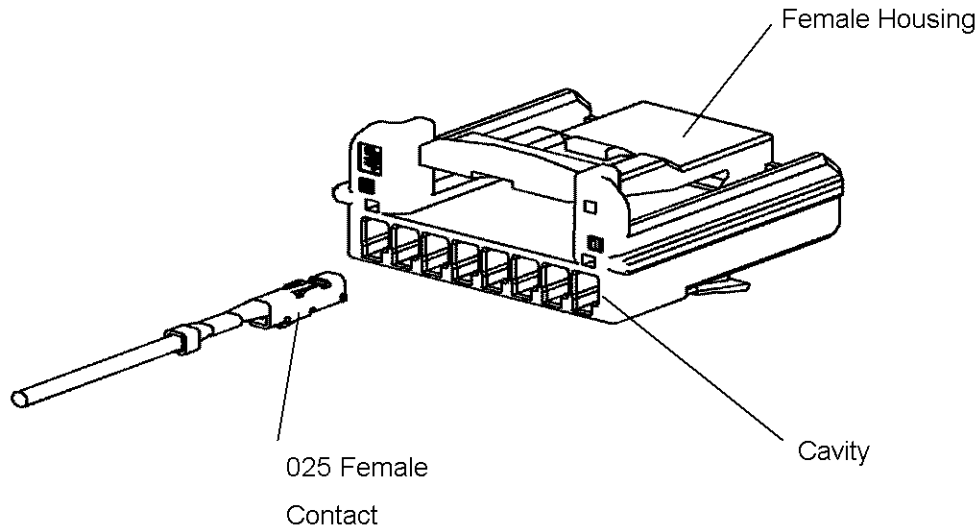


Fig.14

(1) By pulling the contact by 20N MAX, check to make sure that the contact can not be withdrawn.

**NOTE** Though The hinge part opens when the terminal inserts , this action is not a problem.

#### 7.2 Terminal attachment operation

(1) Insert the terminals into the housing with same direction as shown in Fig.12. The insertion is finished when you hear click sound and the terminal can not be with drawn.

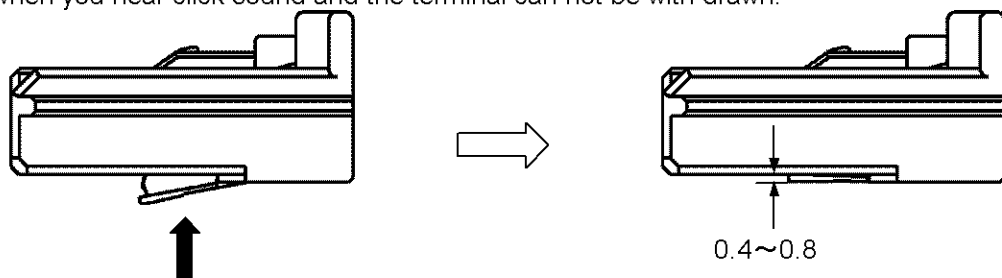


Fig.15

(2) When the retainer can not be pressed to the final lock condition, do not press by force, find the half inserted terminal and insert it.

#### 7.3 How to Unlock Retainer from Final Lock Condition

(1) When the female terminal requires insertion or to extraction, the retainer must be in the pre-assembled condition. The insertion or extraction can not be done in final lock condition using a driver such as 1mm blade screw one, draw out the retainer to pre-assembled condition. Turn up hinge part as Fig.12 and make it temporary assembled condition or opened condition.

**NOTE** Do not extract the hinge more than appropriate length, Otherwise the hinge may be damaged.

#### 7.4 How to Extract Female Contact



Confirm the retainer is in pre-assembled condition or opened condition in the case.

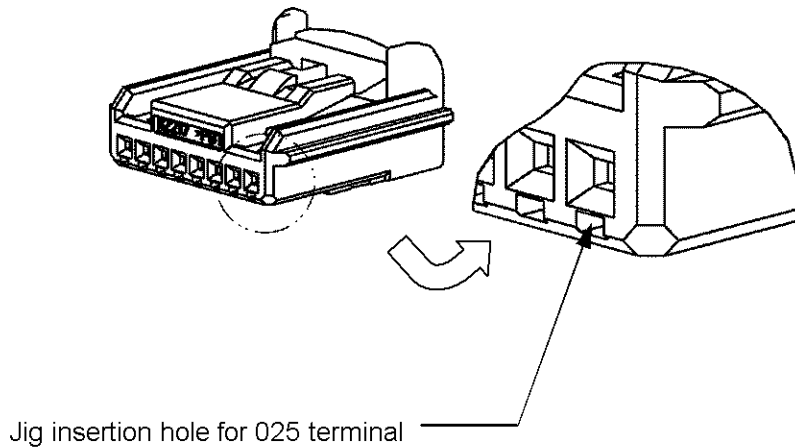


Fig.16

- (1) Insert the jig into the hole. Confirm that the jig stops pull out the terminal slowly. Insert the jig straight, do not press it by force.

Take care not to insert the driver into the female terminal, if the driver should be inserted, the female contact must be renewed.

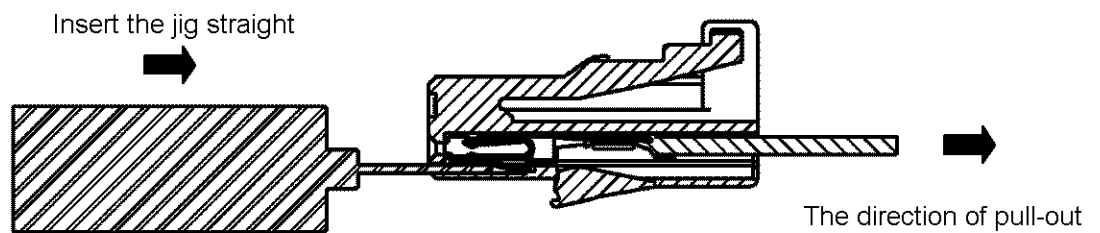


Fig.17

**NOTE** *If only insert the jig, the contact lance will be released. Take care not to apply unnecessary force, otherwise the deformation of the jig occurs or it is cause for falling of retention force by the deformation of the contact lance. And do not repeat extract more than 10 times, otherwise the retention force has fallen.*

**NOTE** *Do not extract the hinge by this extractive jig (for .025 contact).*

**NOTE** *Take care not to insert the screwdriver or the extractive jig into the female contact. If those should be inserted, the female contact must be renewed. Re-using is never allowed.*

## 7.5 Harness Control

### 7.5.1 Handling

Take care not to apply unnecessary force or shock to the connector or the wire.

### 7.5.2 Taping up Wires

The wires must not be taped up more than 30mm from the end of the housing to avoid applying unnecessary force to the wires.

### 7.5.3 Electric Circuit Check

- (1) For making a check on electric circuit, the applicable mating half or equivalent product should be used.
- (2) Never insert the probe pin for the inspection into the female contact. The pin must be probed from the wire side.

**NOTE** If the probe pin should be inserted, the female contact must be renewed.

### 7.5.4 Storage

Avoid storing the connector in a moist or dusty place. Stock the connector away from direct sunlight.

### 7.5.5 Shipping and Carrying

The connector should be used with the proper packaging to prevent the ingress of dust, moisture, etc.

## 8. Mating and Extraction of Connector

### 8.1 Mating of Connector

- (1) Check to make sure that the contact is inserted into the housing in proper condition, the wire is taped up from proper position, and the retainer is in final lock condition. If the retainer is in pre-assembled condition, it must be changed to be in final lock condition.
- (2) And then check the contact and the housing into the male housing for defects, deformation, discoloration, damage, rust, crack, deficit, etc.

**NOTE** The connector must be renewed if any defects are found.

Insert the proper female housing into the male housing straight with same direction as shown in Fig.18. The operation is finished when you hear the click sound and can not insert further.

When you can not insert the housing, do not insert by force, and check the items in (1), (2).

**NOTE** At the insertion operation, take care not to apply force except in the insertion direction.

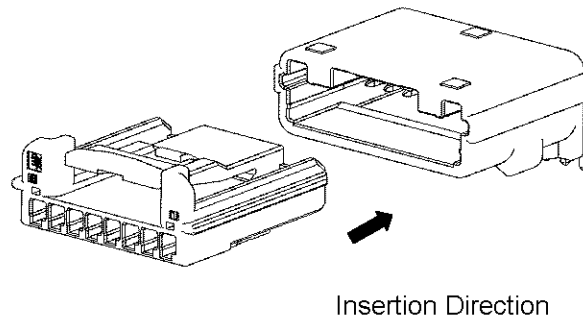


Fig.18

- (4) By pulling the female connector lightly, check to make sure that the connector can not be with drawn.

#### 8.2 Extraction of Connector

Grip the female housing, and then draw straight out while pressing down the locking lever. When the housing can not be drawn out, do not pull it by force but check to make sure if the locking mechanism is released.

**NOTE** *At the extraction operation, take care not to apply force except in the extraction direction.*

**NOTE** *Do not pull the wire only.*

#### 8.3 General Attention Matters

- (1) Do not mate and extract the connector unnecessarily.
- (2) Do not insert any objects except the proper connector.
- (3) At mating/extraction operation, or after mating operation, take cares not to apply unnecessary force or shock to the wire and the connector.