025/060/110 HYB LIF 46P CAP & PLUG ASS'Y

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1. PART NUMBER AND PART NAME

1.1 Housing

Part Number	Part Name
1-2005589-2	LIF 46P CAP ASSY CLIP TYPE
2005589-2	LIF 46P CAP ASSY NAT
2005585-1	LIF 46P PLUG ASSY NAT
2005585-2	LIF 46P PLUG ASSY

Table. 1

1.2 Contact

1.2.1 TAB Contact

Part Number	Part Name	Applicable Wire Range
2005098-1	.025 (PRE-TIN)	0.22 mm^2
2005154-1		0.3 ~ 0.5 mm^2
2005098-2	.025 (SEL-GOLD)	0.22 mm^2
2005154-2		0.3 ~ 0.5 mm^2
2109005-1	.060 (PRE-TIN)	0.22 ~ 0.35 mm^2
2109005-2		0.5 ~ 0.75 mm^2
2109005-3		0.85 ~ 1.25 mm^2
1743423-1	.110 (PRE-TIN)	0.3 ~ 0.5 mm^2
1743424-1		0.75 ~ 1.25 mm^2
1743425-1		1.5 ~ 2.5 mm^2
1743426-1		3.0 mm^2

1.2.2 REC. Contact

Part Number	Part Name	Applicable Wire Range
2005097-1	.025 (PRE-TIN)	0.22 mm^2
2005427-1		0.3 ~ 0.5 mm^2
1123343-2	.025 (SEL-GOLD)	0.22 ~ 0.5 mm^2
2109006-1	.060 (PRE-TIN)	0.22 ~ 0.35 mm^2
2109006-2		0.5 ~ 0.75 mm^2
2109006-3		0.85 ~ 1.25 mm^2
1743162-1	.110 (PRE-TIN)	0.3 ~ 0.85 mm^2
1743163-1		1.25 ~ 2.0 mm^2
1743465-1		3.0 mm^2

Table. 3

1.3 Component View

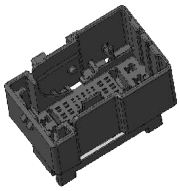
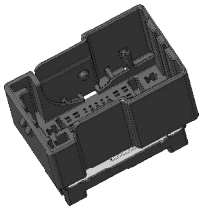
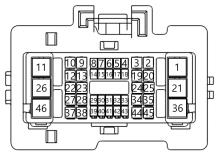
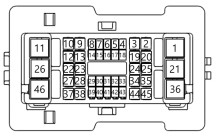
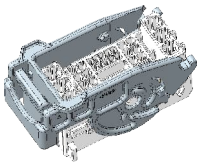
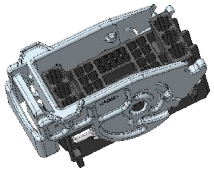
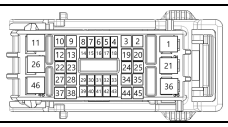
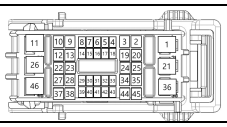
DESCRIPTION	LIF 46P CAP ASSY CLIP TYPE	LIF 46P CAP ASSY NAT
P/N	1-2005589-2	2005589-2
FEATURE		
SYMBOL DIAGRAM		
DESCRIPTION	**LIF 46P PULG ASSY NAT**	**LIF 46P PLUG ASSY**
P/N	2005585-1	2005585-2
FEATURE		
SYMBOL DIAGRAM		

Table. 4

2. CUSTOMER RECEIVING INSPECTION

Tyco conducts inspection according to their quality control regulations to maintain an overall lot control. In addition, the customers should conduct receiving inspections based on the specific customer drawings.

3. STORAGE AND CARRYING

3.1 Contact

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

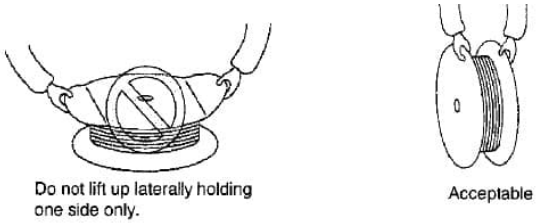


Fig. 1

(3) Avoid storing the contact reel in a moist or dusty place. Stock the reel in a comparatively dry and clean place (5~34 °C, 45~85%RH) away from direct sunlight.
(4) When removing the contact reel from the machine, fasten the end of the contact strip onto the edge of the reel with use of proper string or wire. (Fig.2)

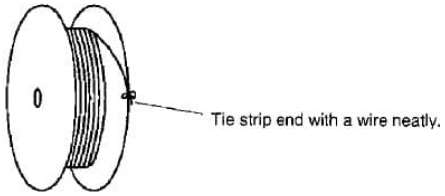


Fig. 2

3.2 Housing

(1) Avoid storing the contact reel in a moist or dusty place. Stock the reel in a comparatively dry and clean place (5~35 ℃, 45~85RH) away from direct sunlight.
(2) Avoid leaving or carrying the housing in an open area without wrapping it in proper material.
(3) Do not drop or shock the housing when carrying it.

4. CRIMPING OPERATION

4.1 Wire

4.1.1 Applicable Wire. See Fig.3 for applicable wire.

4.1.2 Notes FOR Stripping Wire End
Wire end must be stripped without cut or damage of wire stands.

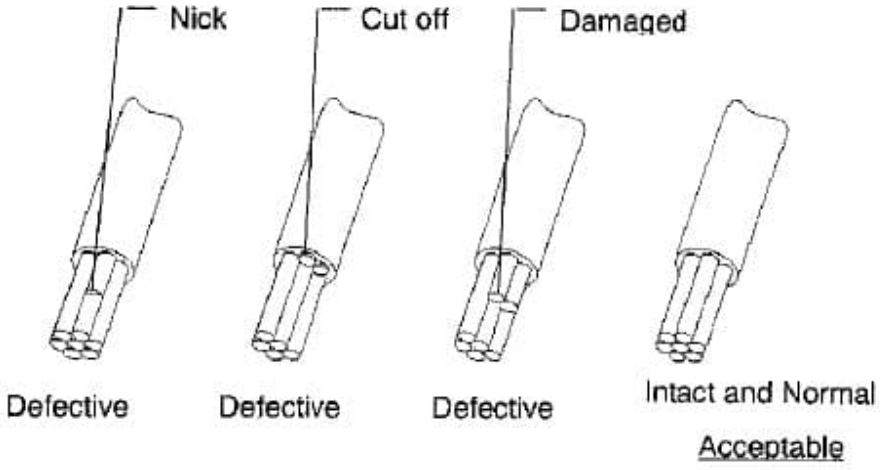


Fig. 3

4.2 Crimping Specification
See following Application Specification for each contact.

TAB	025	114-61031
	060	114-61036
	110	114-61033
REC.	025	114-61030
	025(SEL-GOLD)	114-5250
	060	114-61036
	110	114-61033

Table. 5

4.3 Storage and Handling of Crimping 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) Care should be taken for tangle and deform of contacts in case of the leads should be in bands.
(3) Do not stack the product so many layers. It makes electrical connection defective and low contact retention force by catch together or by deform causing the weight of themselves.
(4) Must no hit tip of the contacts to coordinate the bundle. It makes mating or electrical defective.

5. HARNESS ASSEMBLY

5.1 Insertion Male Contact into Cap Assembly

(1) Check TPA is in pre-lock condition as shown in Fig.4. The contact cannot be inserted in case of the final lock condition so do it again after rework.

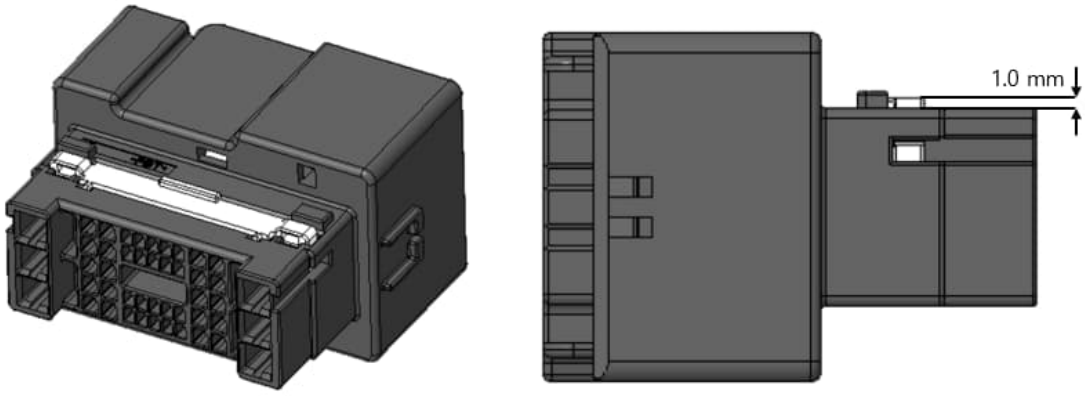


Fig. 4

NOTE: TPA and HSG have 1.0 mm gap in pre-lock condition.

(2) Insert contacts into each specific cavity as shown in Fig. 5. Operation is completed when contact is latched, and the insertion is stopped.

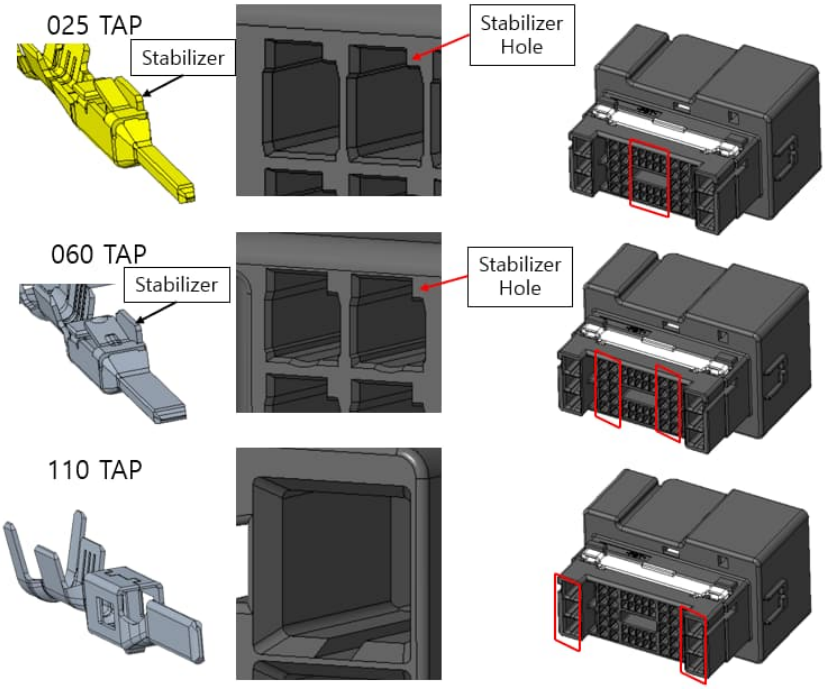


Fig. 5

NOTE: When inserting the terminal, check the position of the stabilizer with the symmetrical arrangement of the hole.

5.2 TPA Final Lock (Secondary Lock)

(1) After all cavities are filled by Contacts properly, push TPA to inside direction to complete Final Lock condition as shown in Fig. 6.

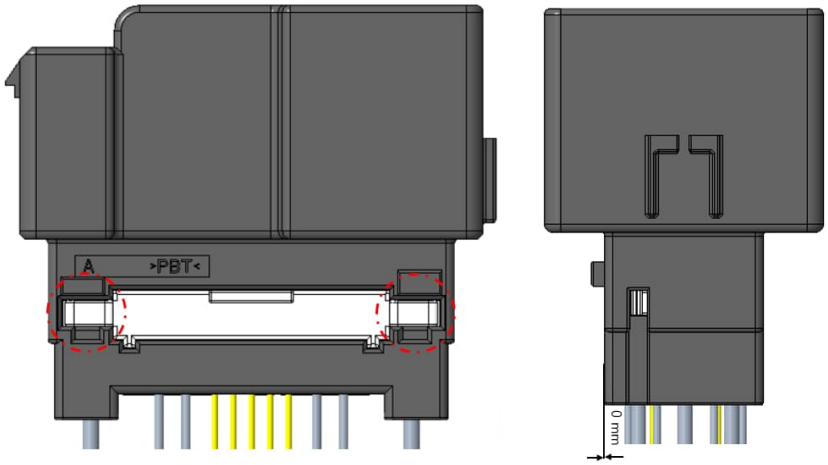


Fig. 6

NOTE: Push both side of TPA to lock final-lock condition. The gap is to be 0mm flash with TPA and HSG.

(2) When TPA cannot be inserted or only one side is inserted or it happened the gap between TPA and HSG, do not operate with force and must find half insertion contact. In case of those, extract TPA from HSG and complete inserting the contact in correct position.

5.3 TPA Release Procedure

In case of Male Contact insertion or extraction, TPA is extracted to Pre-Lock condition (see Fig.4). Release both side of TPA, then lift it to outside direction. Refer to TPA release operation in Fig.7.

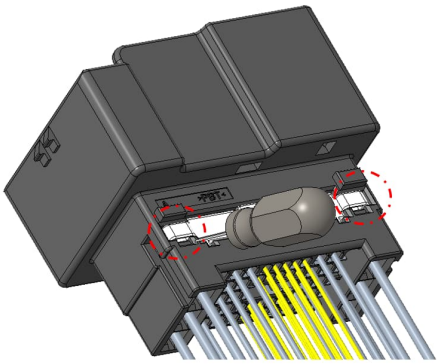


Fig. 7

5.4 Male Contact Extraction

(1) Confirm TPA are in Pre-Lock condition. In case of Final Lock condition, it is necessary to move it to Pre-Lock condition. It is impossible to extract the contacts under Final Lock condition.

(2) Extract the contact with specified tool inserted into proper hole until stopped at bottom end. (see Fig. 8) (It makes operation easier to press the contact to insertion direction once.)

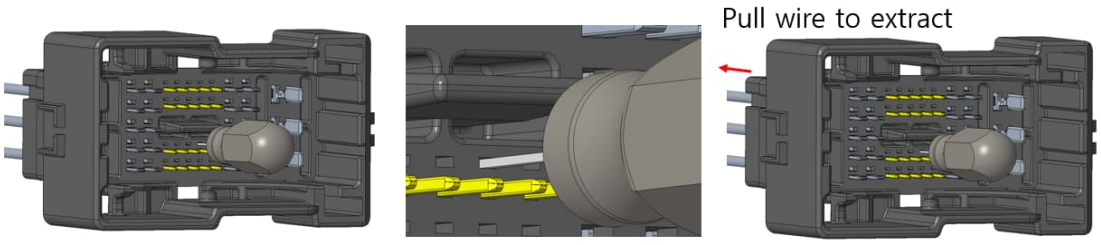


Fig. 8

Note: Male Do not insert driver or tool into the inner side of terminal.

Terminal	Extraction tool description	Remark
Rework tool	Tip-edged tool	

Table. 6

5.5 Insertion Female Contact into Plug Assembly

(1) Check TPA is in pre-lock condition as shown in Fig.9. The contact cannot be inserted in case of the final lock condition so do it again after rework.

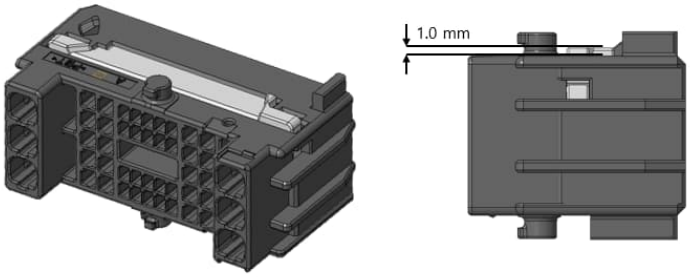


Fig. 9

NOTE: TPA and HSG have 1.0mm gap in pre-lock condition.

(2) Insert contacts into each specific cavity as shown in Fig. 10. Operation is completed when contact is latched, and the insertion is stopped.

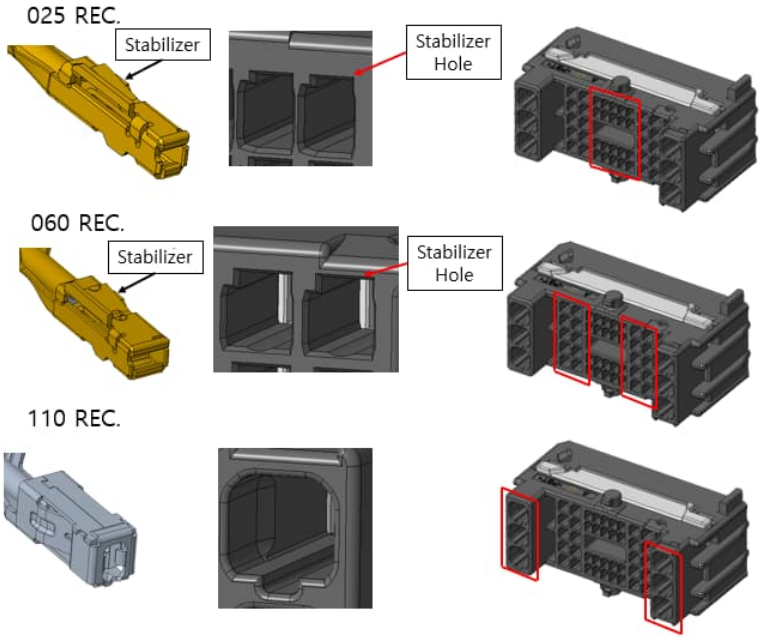


Fig. 10

NOTE: When inserting the terminal, check the position of the stabilizer with the symmetrical arrangement of the hole.

5.6 TPA Final Lock (Secondary Lock)

(1) After all cavities are filled by Contacts properly, insert TPA into Housing to deep end and complete Final Lock condition as shown in Fig. 11.

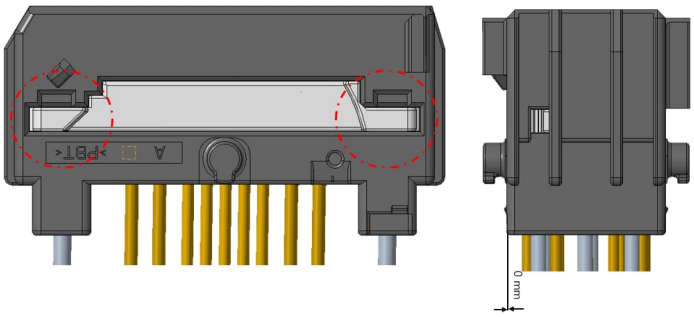


Fig. 11

NOTE: Push both side of TPA to lock final-lock condition. The gap is to be 0mm flash with TPA and HSG.

(2) When TPA cannot be inserted or only one side is inserted or it happened the gap between TPA and HSG, do not operate with force and must find half insertion contact. In case of those, extract TPA from HSG and complete inserting the contact in correct position.

5.7 TPA Release Procedure

In case of Female Contact insertion or extraction, TPA is extracted to Pre-Lock condition (see Fig.9). Release both side of TPA, then lift it to outside direction. Refer to TPA release operation in Fig.12.

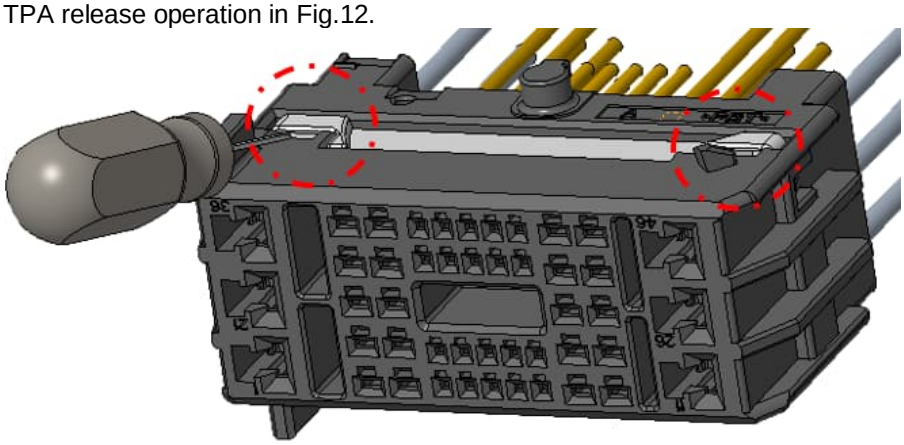


Fig. 12

5.8 Female Contact Extraction

(1) Confirm TPA is in Pre-Lock condition. In case of Final Lock condition, it is necessary to move it to Pre-Lock condition. It is impossible to extract the contacts under Final Lock condition.

(2) Extract the contact with specified tool inserted into proper hole until stopped at bottom end. (see Fig. 13) (It makes operation easier to press the contact to insertion direction once.)

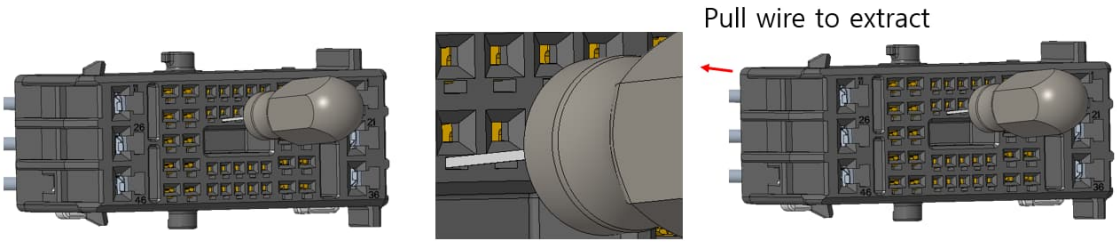


Fig. 13

Note: Male Do not insert driver or tool into the inner side of terminal.

Terminal	Extraction tool description	Remark
Rework tool	Tip-edged tool	

Table. 7

5.9 Wire Harness Control

5.9.1 Handling

Do not apply too much force or shock against connector or harness.

5.9.2 Wire tie up and taping

Wires are tied up at apart from 30mm more from the end of connector. The operation be conducted carefully so that too much force is applied against the wires.

5.9.3 Conductivity check

(1) Use applicable mating connector or equivalent for conductivity check jig. Confirm Lever is in final lock condition.
(2) Check probe pin must not be inserted inside of female contact.

NOTE: Contact must be replaced in case of the prove pin insertion.

5.9.4 Storage

Store the product dry and clean area. In addition, do not leave the product with exposed condition.

5.9.5 Shipping and Carrying

Use Proper package which can prevent product from dust, rain, etc. And handle carefully.

6. CONNECTOR MATING AND UNMATING OPERATION

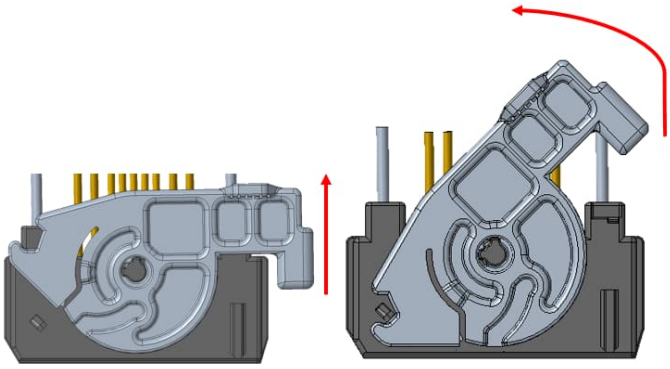
6.1 Connector Mating

(1) Check contact latching condition, proper wire tie up position, and TPA is in final lock condition. TPA must be adjusted to final condition if it is in initial lock condition.

(2) In the next step, check no contact has deformation, discolor, damage, rust and housing have no deformation, crack breakage, and discolor.

NOTE: In case of any trouble is found, replace it to new one.

(3) Check Lever lock condition
Check the lever whether its location is Secondary lock position. (See Fig. 14)



Initial lock position Secondary lock position
Fig. 14

(4) Connector mating
After placing the PLUG ASS'Y in the correct position on the CAP ASS'Y, press the lever downward to lock the CAP HSG locking area while rotating the trajectory. Push and work until the sound is heard.

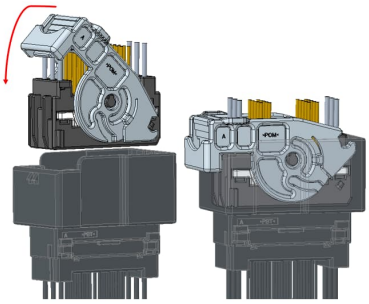


Fig. 19.

NOTE: In case of any unexpected feeling such as double action or unsmooth insertion during the operation, Lever must be adjusted to at initial condition. Operation must be restarted. And the return to (4) operation.

6.2 Connector Unmating

(1) Release Lever lock while push Final lock.
(2) Release Lever and keep Initial lock condition.
(3) Release female housing from male housing.
(4) For Lever unlock, do the reverse sequence in Fig. 19