1.Scope

This document specifies the procedures of mating/unmating operation of DF59-*P-2FC, DF59-*P-2C, DF59-*P-2SP to DF59-*S-2V (*:Number of positions).

This document contains general guideline and operating suggestions to use this product safely. If this product is used another way from being written in this document, unexpected trouble such as connector breakage could happen. Please read through this document and understand proper operation before using.

DF59-*P-2FC has a unique floating structure. Please be careful on its handling especially mating/unmating operation, and make sure that this document is handed to the person who actually uses this connector.

2.Part Number

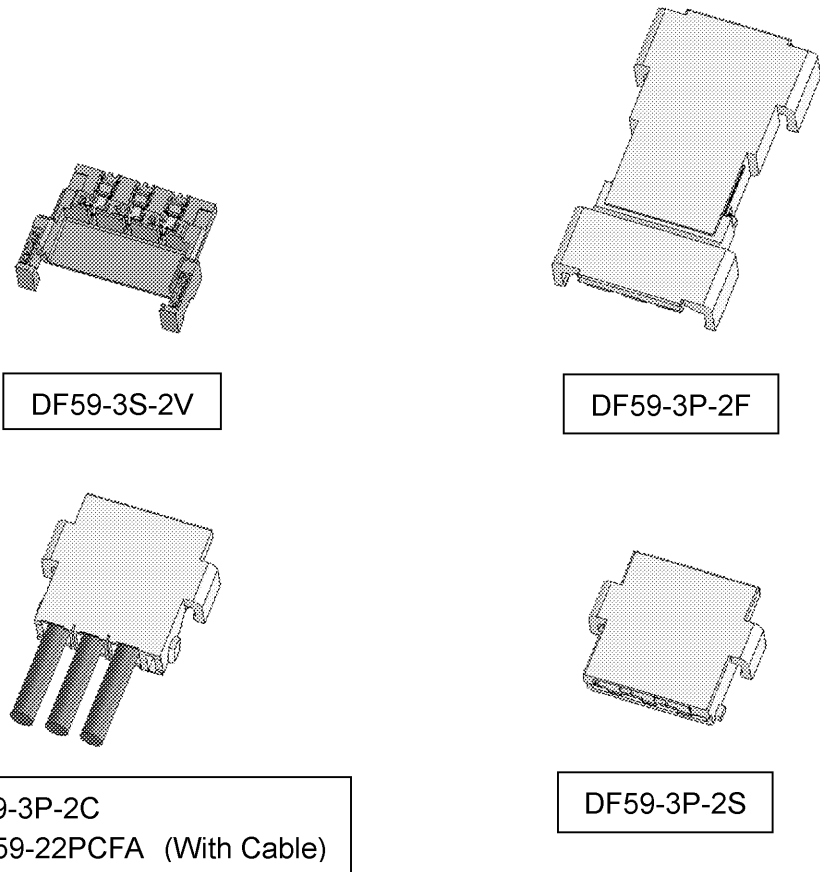| Item	Description
DF59-*S-2V	Receptacle
DF59-*P-2FC	Floating socket
DF59-*P-2C	Crimp socket
DF59-22PCFA	Crimp terminal
DF59-*P-2SP	Short circuit pin

DF59-3S-2V

DF59-3P-2F

DF59-3P-2C
+DF59-22PCFA (With Cable)

DF59-3P-2S

Fig. 1: DF59 Connectors (3 pos.)

	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
⚠					

TITLE				
DF59 Series Mating/Unmating Operation Instruction Manual	HRS HIROSE ELECTRIC CO., LTD.			
	APPROVED	KI.AKIYAMA	11.02.14	
	CHECKED	OM.MIYAMOTO	11.02.14	
	DESIGNED	KT.ISHII	11.02.14	
	WRITTEN	KT.ISHII	11.02.14	
TECHNICAL SPECIFICATION	ETAD-H0496	⚠	1 / 8	

FORM HC0011-9-1

3. Operation Procedures for Floating Socket

3-1. Maiting

3-1-a. Alignment for Mating

Hold part A on the floating socket, and place it on the receptacle so that part A matches to part B.

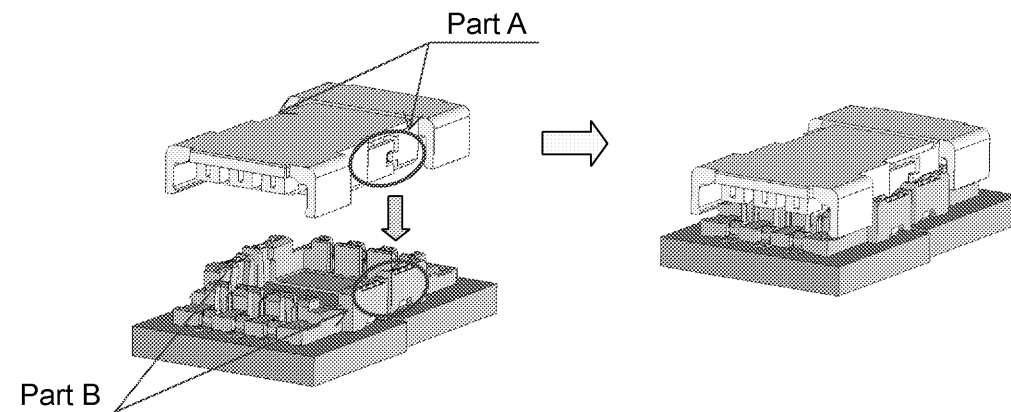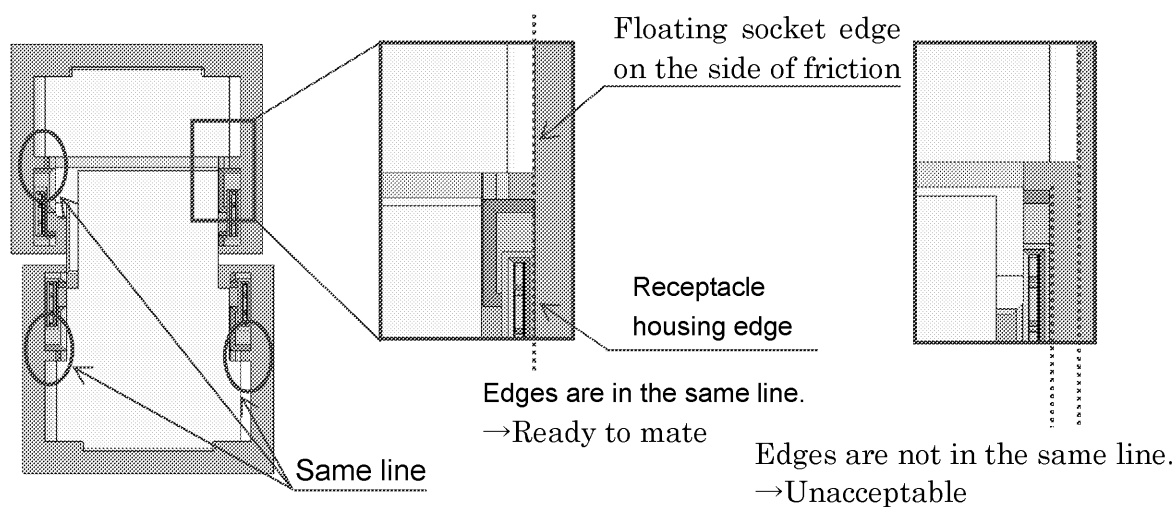Part A

Part B

Fig. 2: Pre alignment for mating

Align the floating socket edge on the side of friction lock to receptacle housing edge in a line.

Floating socket edge on the side of friction

Receptacle housing edge

Same line

Edges are in the same line.
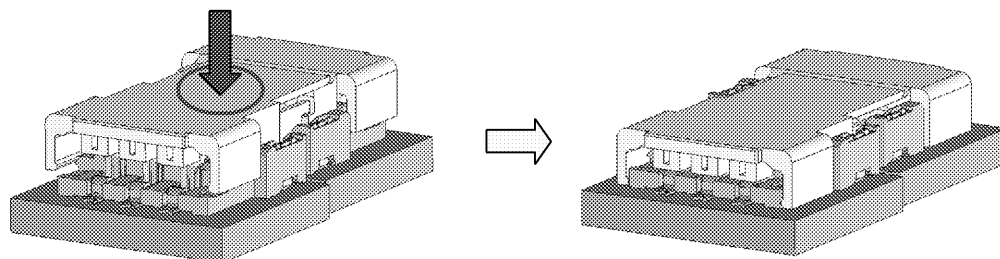→Ready to mate

Edges are not in the same line.
→Unacceptable

Note) Forcible mating without above alignment process could cause contact deformation.

Fig.3: Alignment for mating

3-1-b. Mating

Press down at the center surface of the floating socket.

Note) Press down until the floating socket touches to the receptacle.

Fig. 4: Mating

3-1-c. Mating Confirmation
  Make sure that the floating socket is completely mated.
  If the floating socket is not leveled, remove it from the receptacle and mate again.
  Refer to 3-2. for unmating operation.

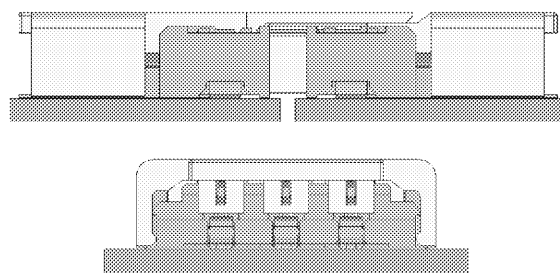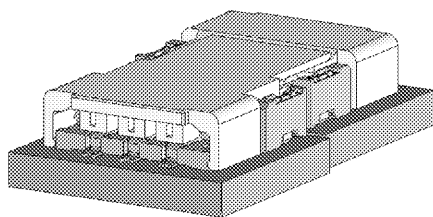[Correct image of mated connector]

Fig. 5: Mating confirmation

3-2. Unmating
  3-2-a. Unmating-1
    Hook the lever on either sides of socket (1) or (2) with finger and lift up to the upper direction for unlock.
    Note) Lift up until friction lock is released.

Unmating

Finger position
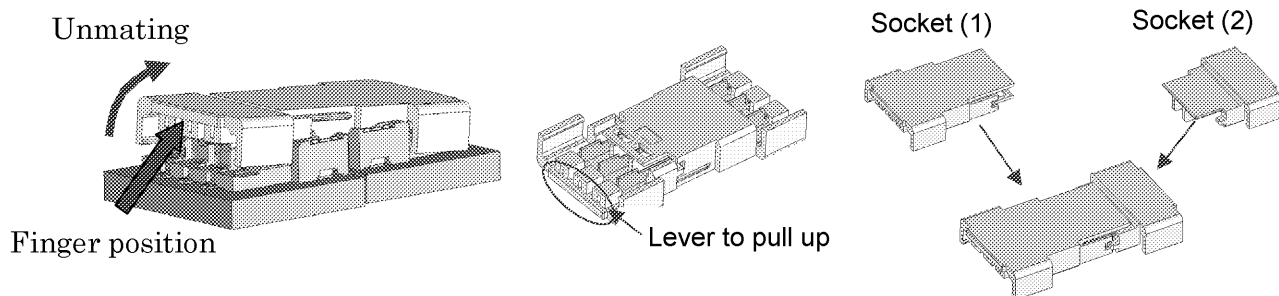
Lever to pull up

Socket (1)   Socket (2)

Fig. 6: Unmating-1

When lifting up the floating socket, apply even force to the center in pitch direction and do not operate at the corners.
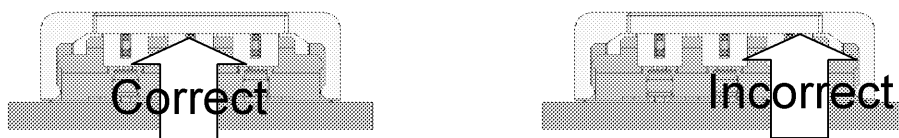(Avoid concentrating force to either contact No. 1 side or the other side.)

Correct   Incorrect

Fig. 7: Position to apply force

  3-2-b. Unmating-2
    After releasing either side, hook the lever on the other side with a finger and lift up to the upper direction, too.

Unmating direction

Finger position
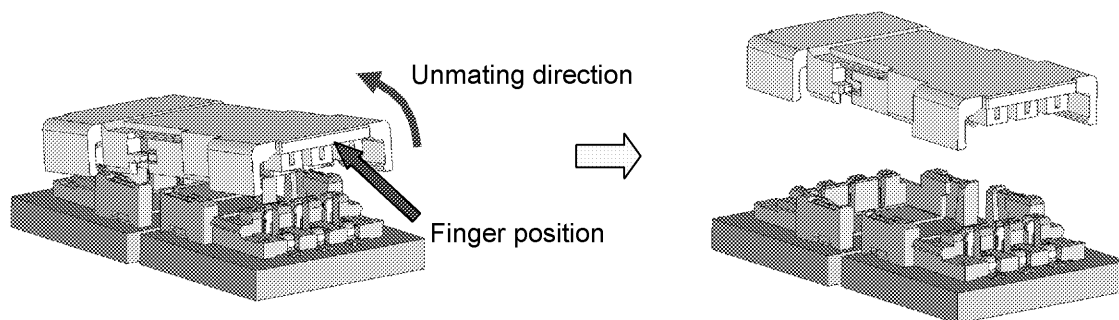
Fig. 8: Unmating-2

4. Operation Procedures for Crimp Socket

4-1. Mating

4-1-a. Alignment for Mating

By positioning the convexity of the crimp socket sides to the receptacle concavity, align the centers of the crimp socket and the receptacle in pitch direction.
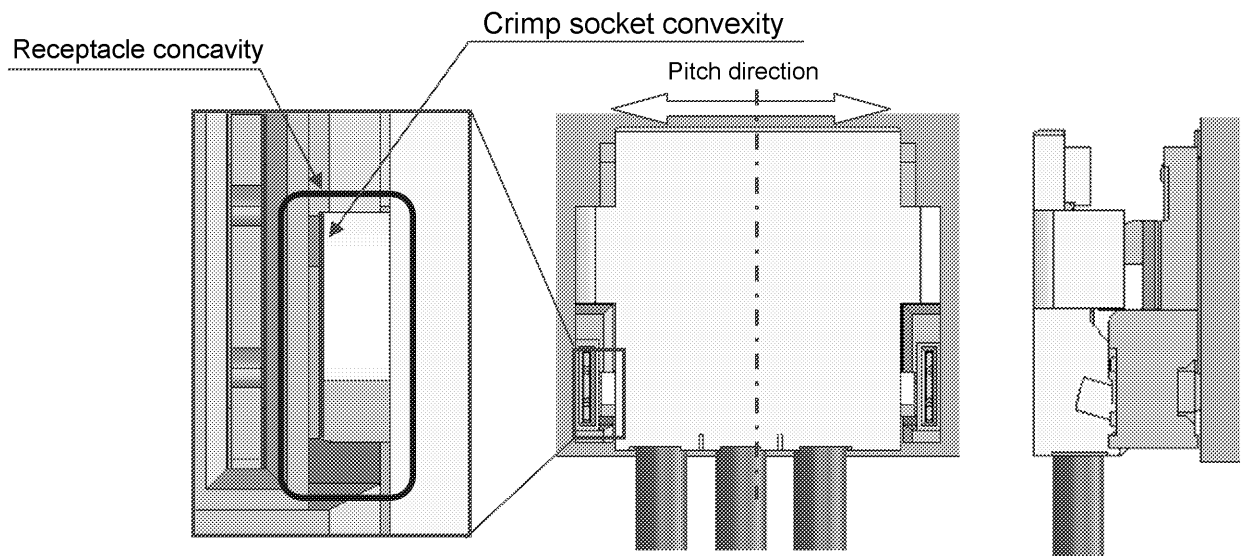
Receptacle concavity

Crimp socket convexity

Pitch direction

Fig. 9: Alignment for mating

4-1-b. Temporary Insertion

Slightly press the crimp socket down at the cable side to tilted angle.

Lever side   Cable side

Press position

Guide key configuration

Crimp socket

Press position

Receptacle

If the crimp socket is pushed down horizontally without temporary insertion as shown above, the lock structure could be damaged, and lock strength could be lowered.
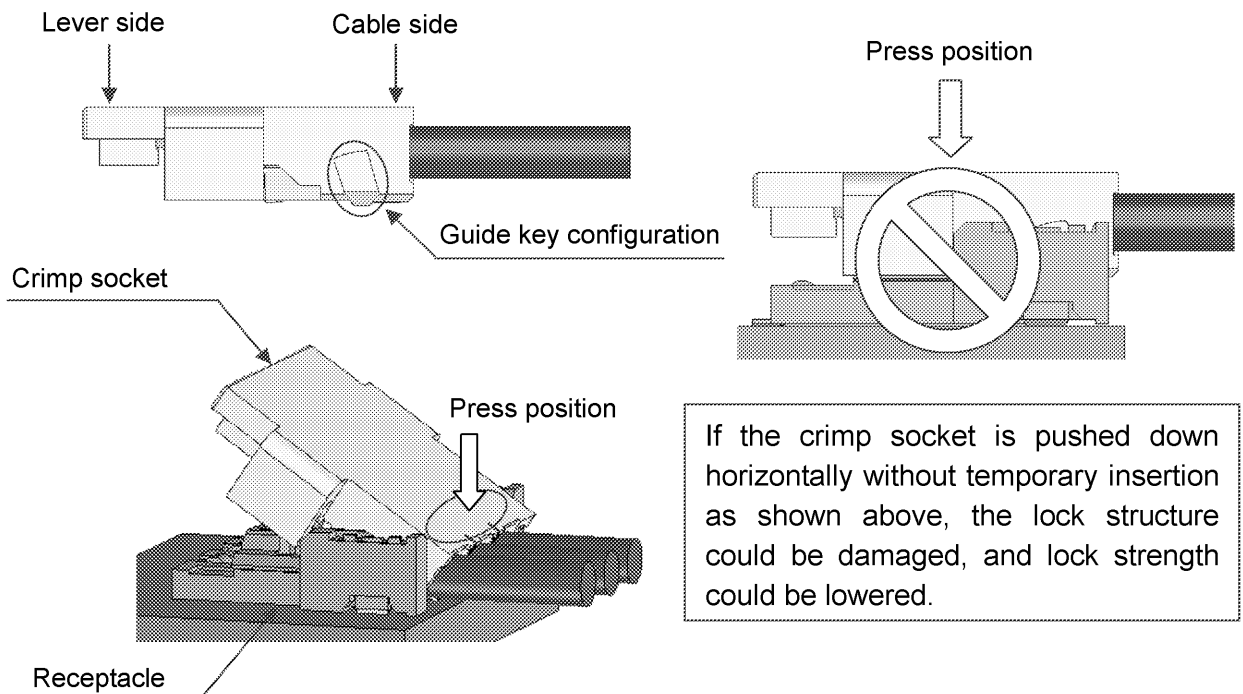
Fig. 10: Temporary insertion

4-1-c. Mating

Keep pressing down at the cable side and also apply force to the lever side to mate.
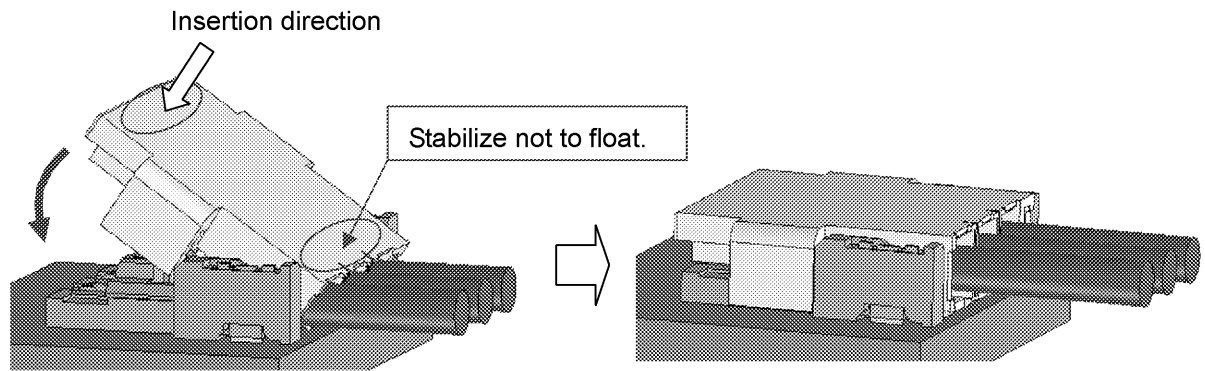(If the cable side floats before mating is finished, the lock may not work.)

Insertion direction

Stabilize not to float.

Fig. 11: Mating

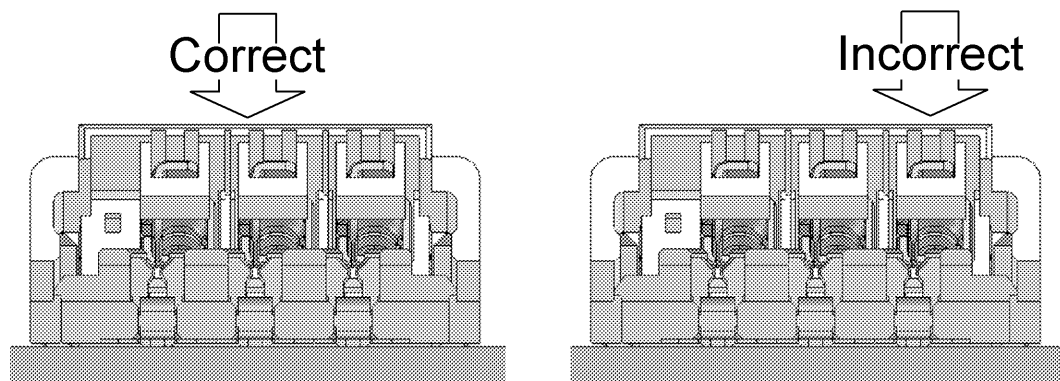Apply even force to the center of the socket in pitch direction for mating.

Correct

Incorrect

Fig. 12: Position to apply force

4-1-d. Mating Confirmation

Make sure that the crimp socket is completely mated.
If one side is floated or not completely mated, remove the socket from the receptacle and mate again.
Refer to 3-2. for unmating operation.
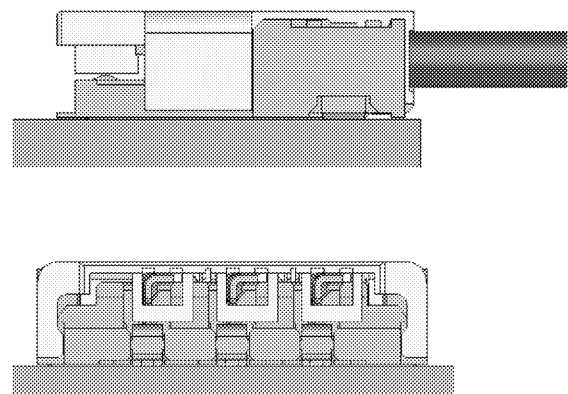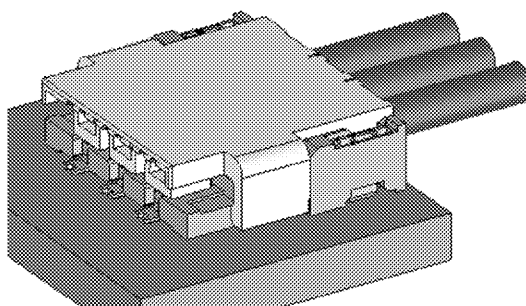
[Correct image of mated connector]

Fig. 13: Mating confirmation

4-2. Unmating
4-2-a. Unmating
Hook the lever with finger and lift up to the upper direction for unlock.
Note) When lifting up the lever, do not apply downward force to the cable side
of the crimp socket. This could damage the connector.
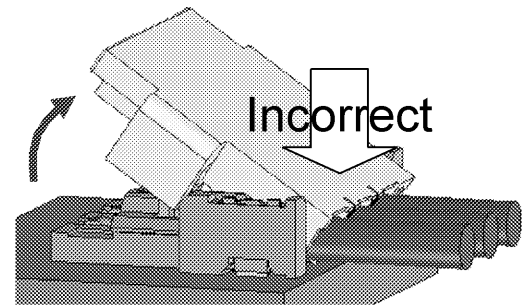
Unmating direction
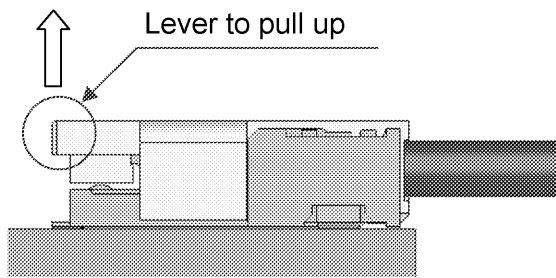
Lever to pull up

Incorrect

Fig. 14: Unmating

For unmating, apply even force to the center in pitch direction and do not operate
at the corners. (Avoid concentrating force to either contact No. 1 side or the other side.)
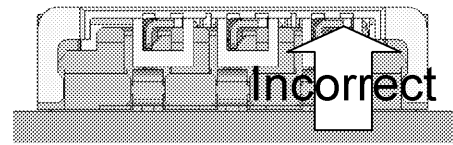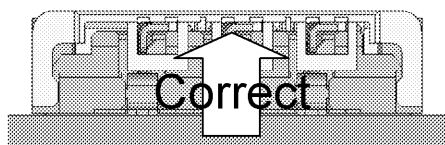
Correct

Incorrect

Fig. 15: Position to apply force

Make sure to use the lever for removal operation.
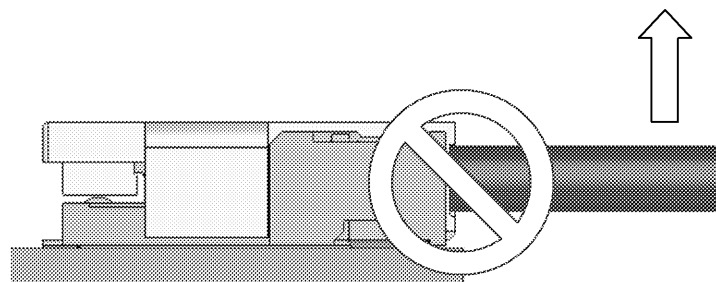If the cable is pull for removal, it could break the cable or damage the connector.

Fig. 16: Incorrect removal operation

5. Operation Procedures for Short Circuit Pin

5-1. Mating

5-1-a. Alignment for Mating

By positioning the convexity of the short circuit pin sides to the receptacle concavity, align the centers of the short circuit pin and the receptacle in pitch direction.
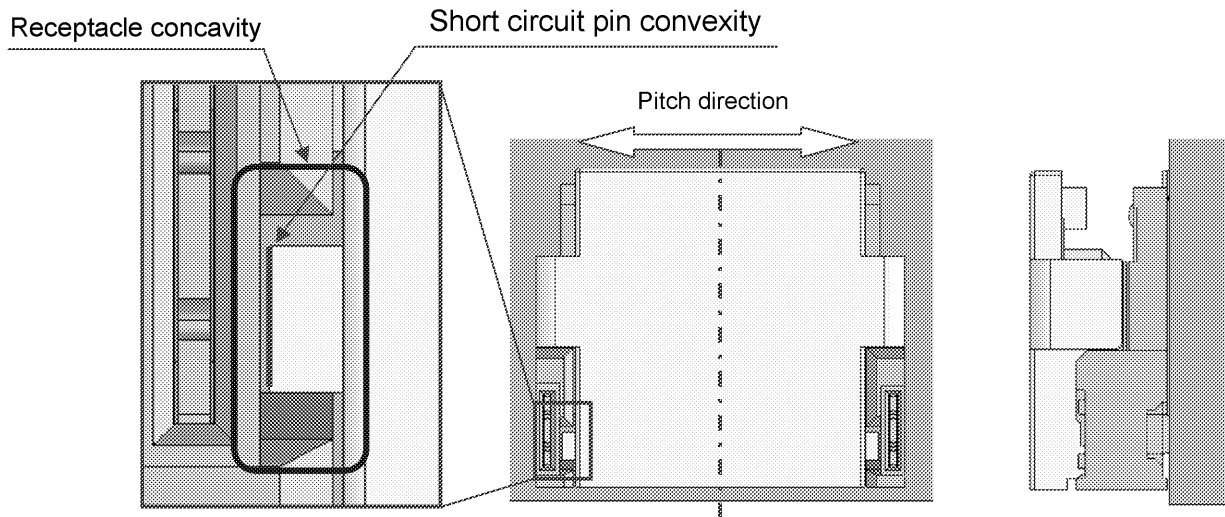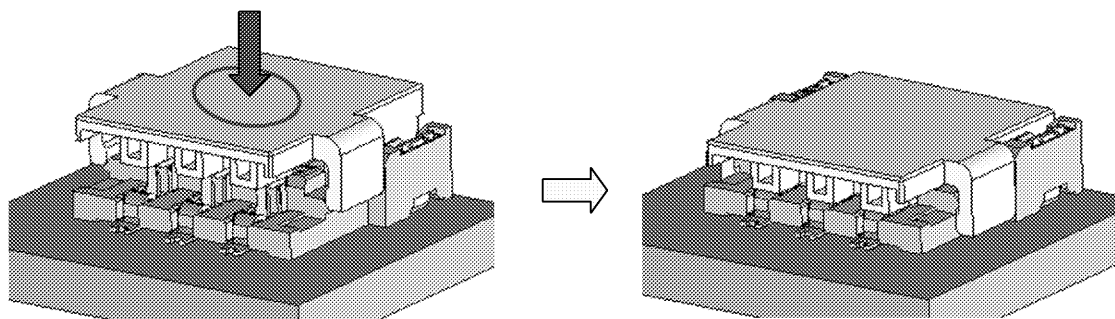
Receptacle concavity   Short circuit pin convexity

Pitch direction

Fig. 17: Alignment for mating

5-1-b. Mating

Press down at the center surface of short circuit pin.

Note) Press down until the short circuit pin touches to the receptacle.

Fig. 18: Mating

5-1-c. Mating Confirmation

Make sure that the short circuit pin is completely mated.
If it is not completely mated, remove the short circuit pin from the receptacle and mate again.
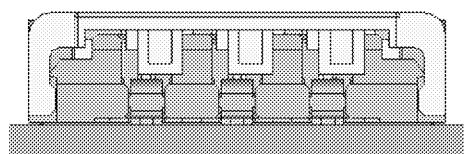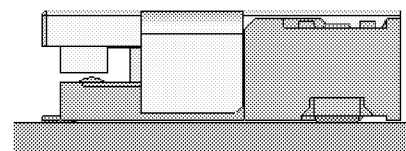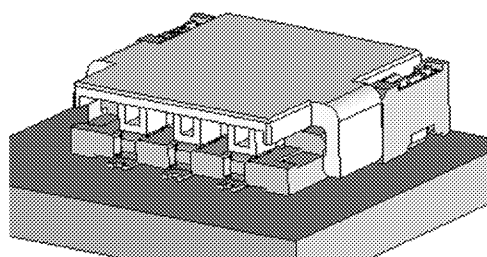Refer to 5-2. for unmating operation.

[Correct image of mated connector]

Fig. 19: Mating confirmation

5-2.Unmating

5-2-a. Unmating
Hook the lever with finger and lift up to the upper direction for unlock.
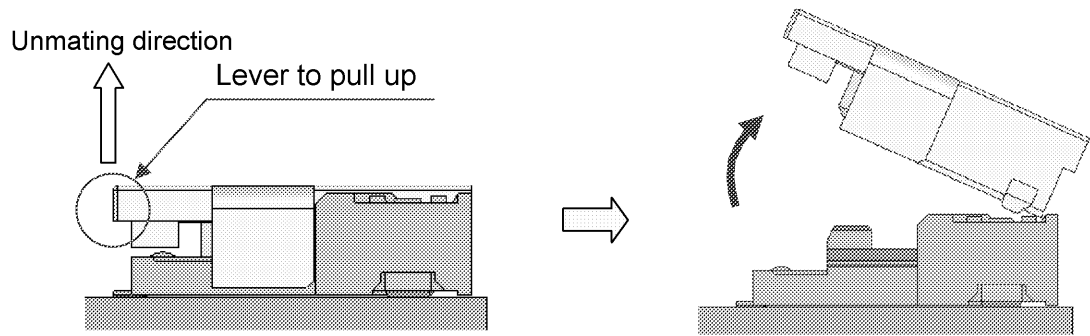
Unmating direction

Lever to pull up

Fig. 20: Unmating

For unmating, apply even force to the center in pitch direction and do not operate at the corners. (Avoid concentrating force to either contact No. 1 side or the other side.)
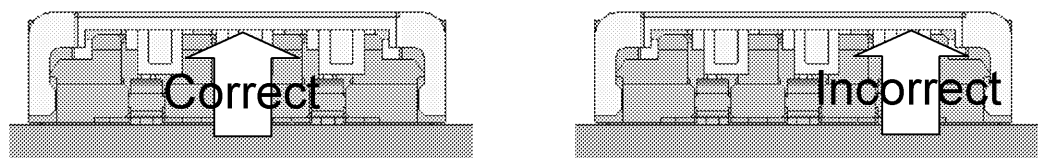
Correct

Incorrect

Fig. 21: Position to apply force

6. Precautions
・Do not operate the connector while the electricity is carried.
・If external force is excessively applied to the connector, failure or damage could be caused.
　Forcible mating/unmating, cable pull / cabling and mechanical shock, should be avoided.

HIROSE ELECTRIC CO., LTD.

ETAD-H0496

FORM HC0011-9-2