1. Scope

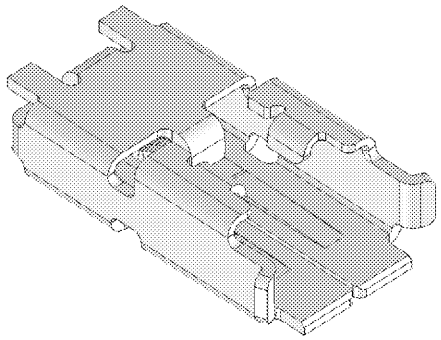
This document specifies the insertion/removal procedures of DF59M series.

Operation NOT following this document could induce unexpected troubles such as connector deformation.

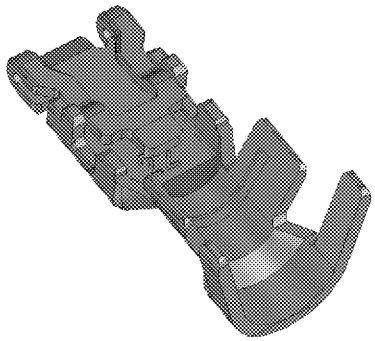
Please read this carefully and the product after understanding the content enough.

2.Part No.

Item	Description
DF59M-1S-H	Receptacle
DF59M-***PC(F)	Plug terminal



DF59M-1S-H



DF59M-****PC(F)

Fig 1.DF59M Series

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3. Operation procedures

3-1. Insertion

Hold the cable, and align the plug terminal to the receptacle.

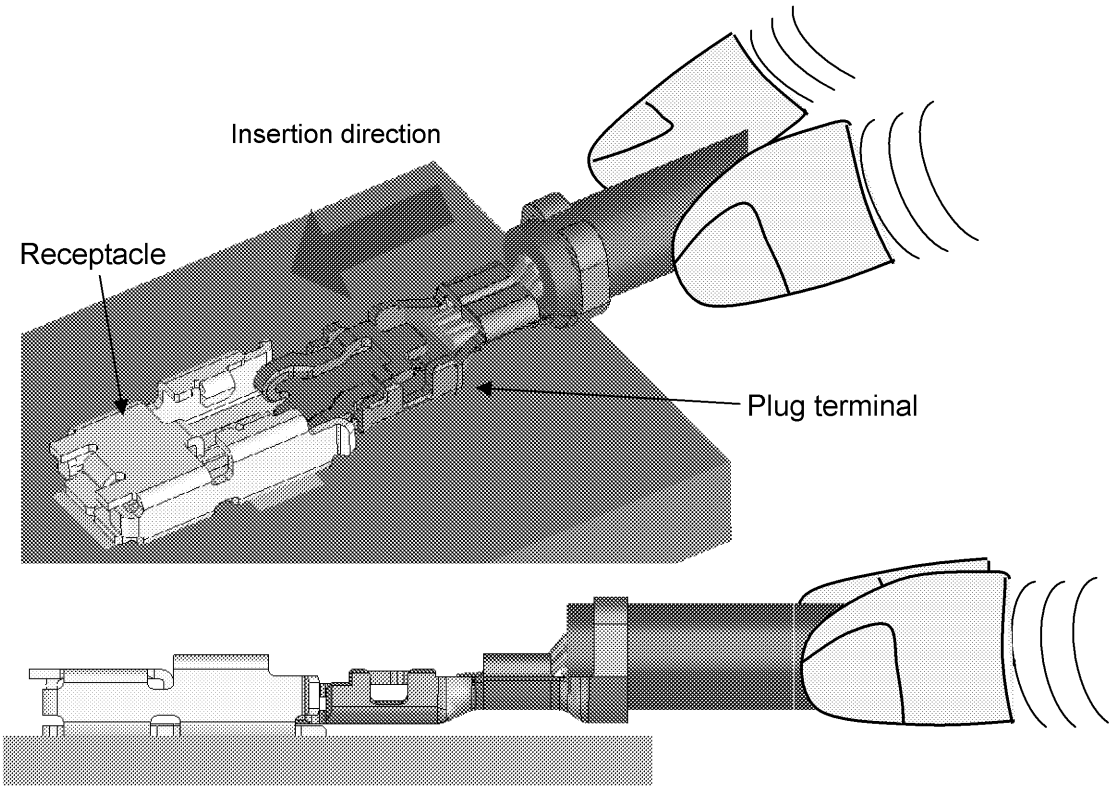

Fig 2. Insertion

Insert the plug terminal straight in until it clicks.

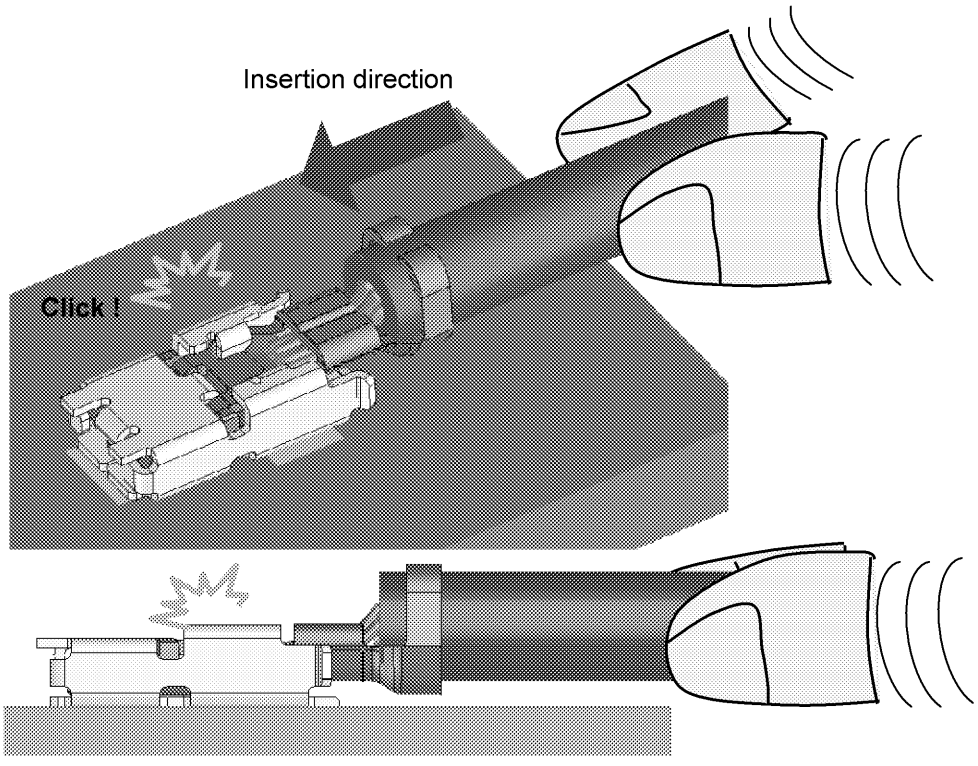

Fig 3. Insertion

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Do not insert the plug terminal at an angle as this may cause quality deterioration.
(All the directions)

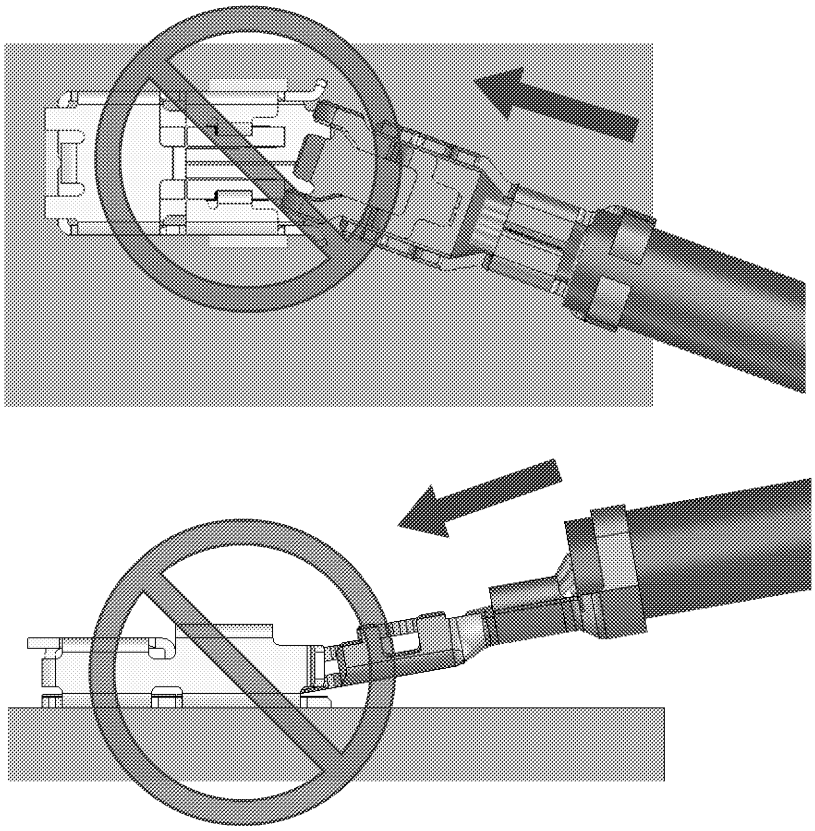

Fig 4. Insertion

3-1-b Mating Confirmation

Make sure that the receptacle and the plug terminal are securely hooked at lock part by visual check or cable pulling, See “3-2. Removal” for removal procedures

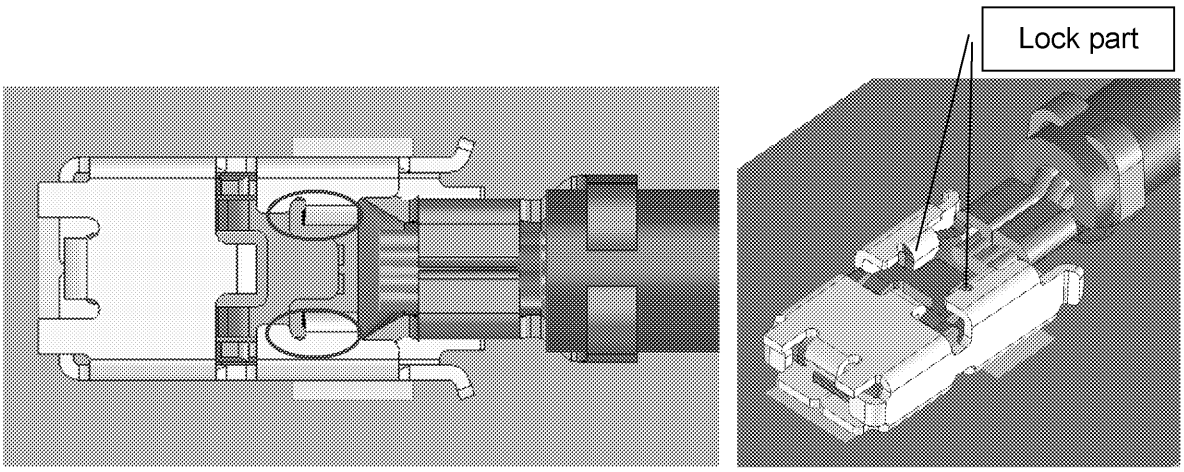

Fig.5 Check fitting

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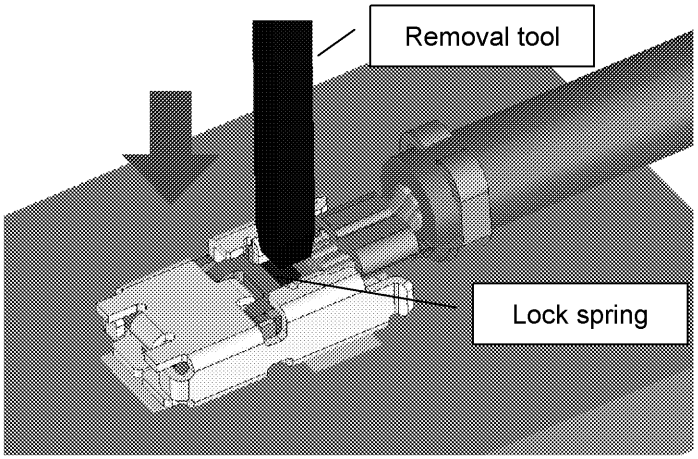
3-2. Removal

For removal operation, using removal tool specified below is recommended.

Item	Description
DF-C-PO(A)	Removal tool

3-2-a.Removal-1

Press down the removal tool against the blue part (Fig. 6) to unlock.



Note
Please make sure that removal tool tip doesn't interfere with the receptacle

Fig 6.Removal

Pull the cable to remove the plug terminal while lock spring is pressed down by removal tool.

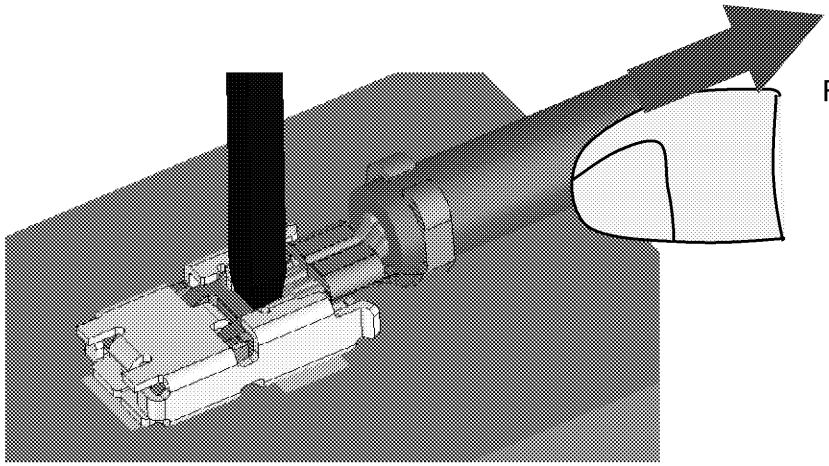


Fig 7.Removal

Note
Please keep in mind that there is a possibility of connector deformation when excessive stress Is applied by removal tool operatin.

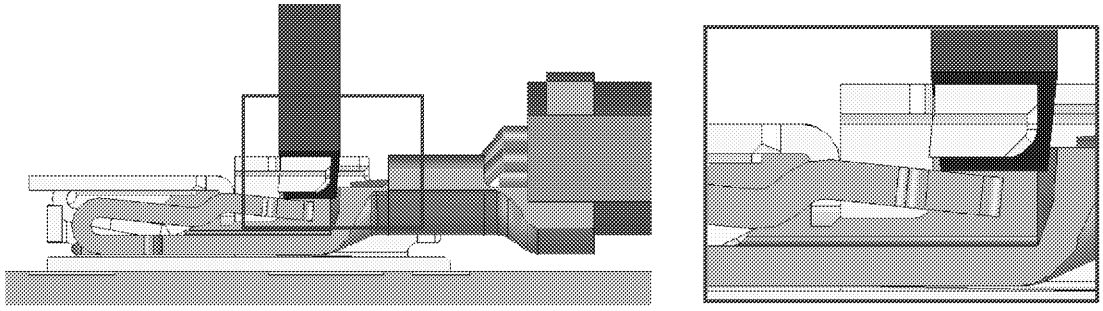


Fig 8.Removal

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4. in Handling

4-1 Wiring

During cable wiring inside the machine, keep sufficient cable length for slack to avoid direct stress is applied to the connector.

Forcible wiring such as bending the cable near the connector and straining the cable, could cause contact failure.

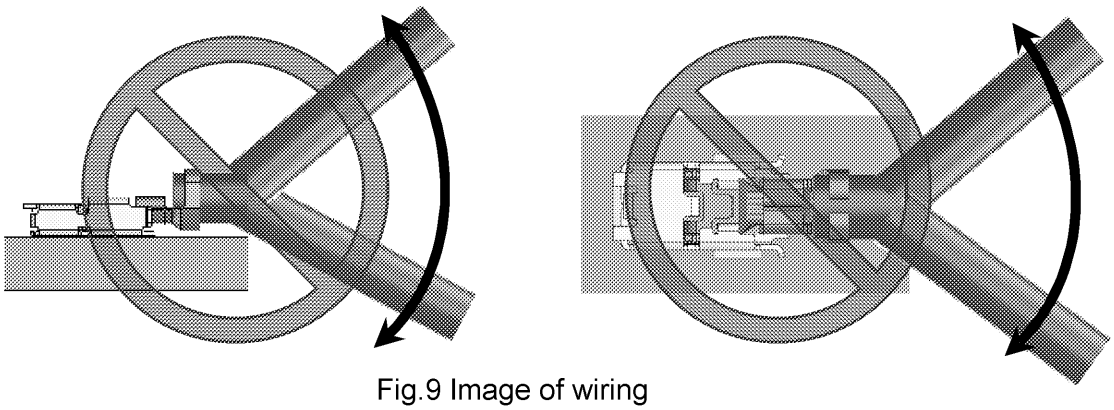

Fig.9 Image of wiring

4-2.PCB Layout

This connector consists of metal only and doesn't have insulation.

Therefore, be sure not to touch the connector during current-carrying.

Keep the required creepage distance between parts as shown below.

ex) Pattern to Pattern / PCB end side(conductor) to Plug terminal
Pattern to PCB end side(conductor) / Connector to Othes parts

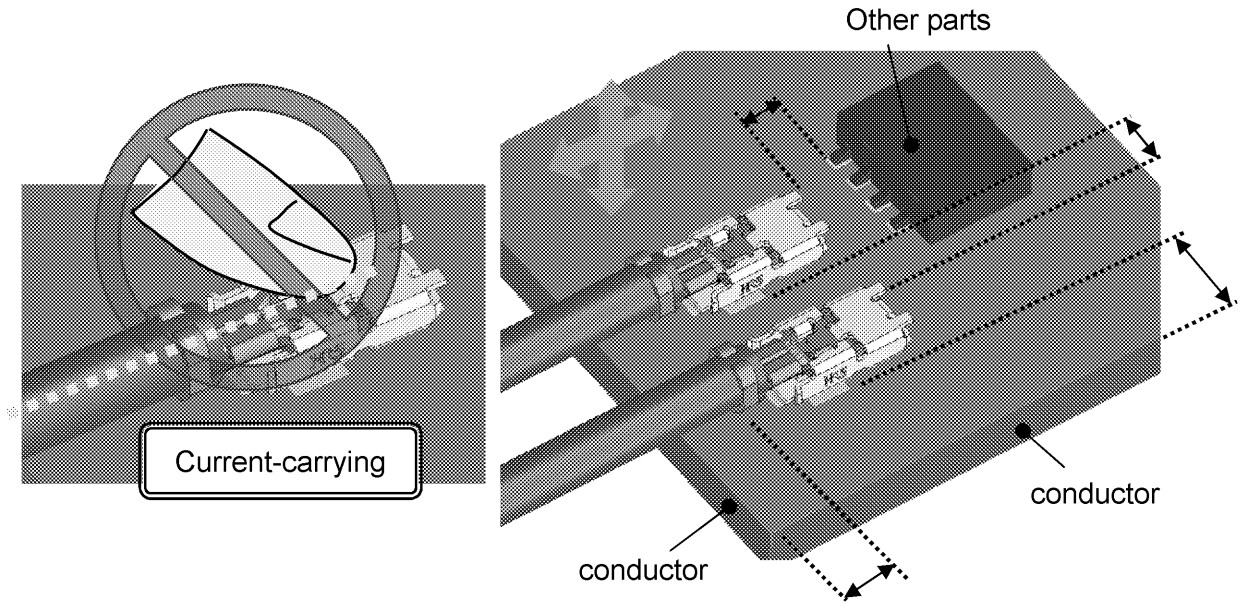

Fig 10. PCB Layout

Insulation Coordination

In accordance with IEC60664 and JIS C 60064,creepage distance of 1.6mm or more is required in 300V of rated voltage. (In pollution degree2 of printed wiring material)
Please follow the standard applied to your device for required creepage distance and clearance.

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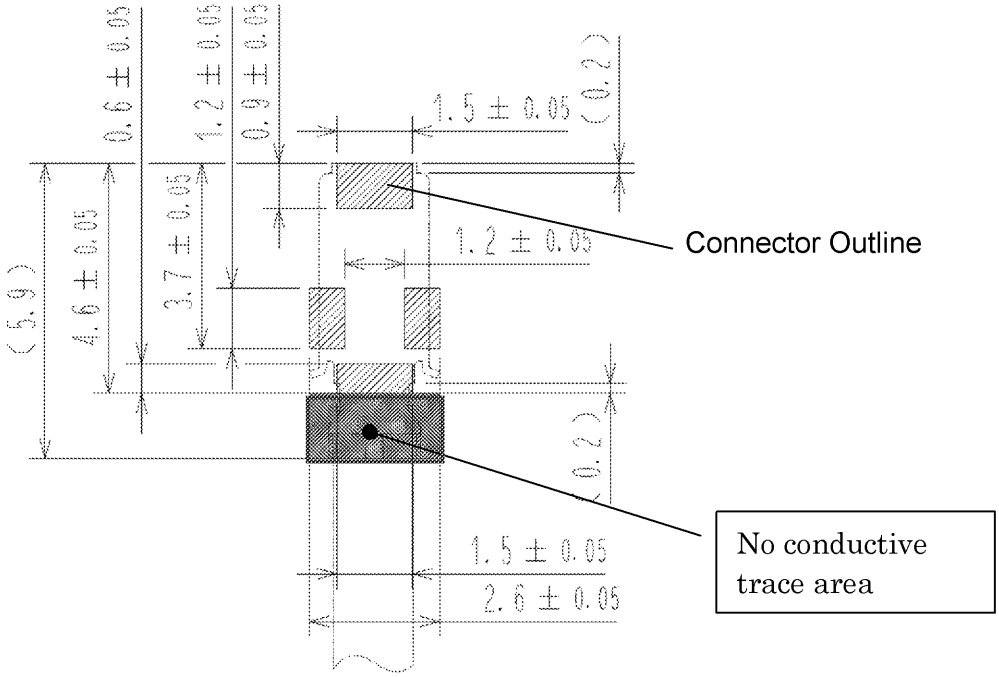
Keep the indicated area away from Conductive trace.
When patterning is not avoidable, Conductive trace must be covered by resist film.



5. Precautions

- Do not insert or remove the plug and Receptacle while electrifying.
- Excessive stress applied to connector could cause failure and/ or deformation. Avoid forcible insertion removal, and drop impact.
- Do not operate the connector during current-carrying.

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