

MHF[®] 7S Connector

Part No. PLUG: 20980-001R-13, RECEPTACLE: 20981-001E-02

Instruction Manual

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This manual explains the mating and unmating methods and important handling points of the MHF 7S connector for proper use.

Connector parts No.

MHF 7S Plug	20980-001R-13
MHF 7S Receptacle	20981-001E-02



Fig. 1 MHF 7S Plug



Fig. 2 MHF 7S Receptacle

Mating and unmating JIG

The connector recommends using the JIG shown in Fig. 3 for mating/unmating operation to avoid excessive stress to a cable connection point. The cable connector is designed to hook this "Mating and unmating JIG"(Fig. 4)

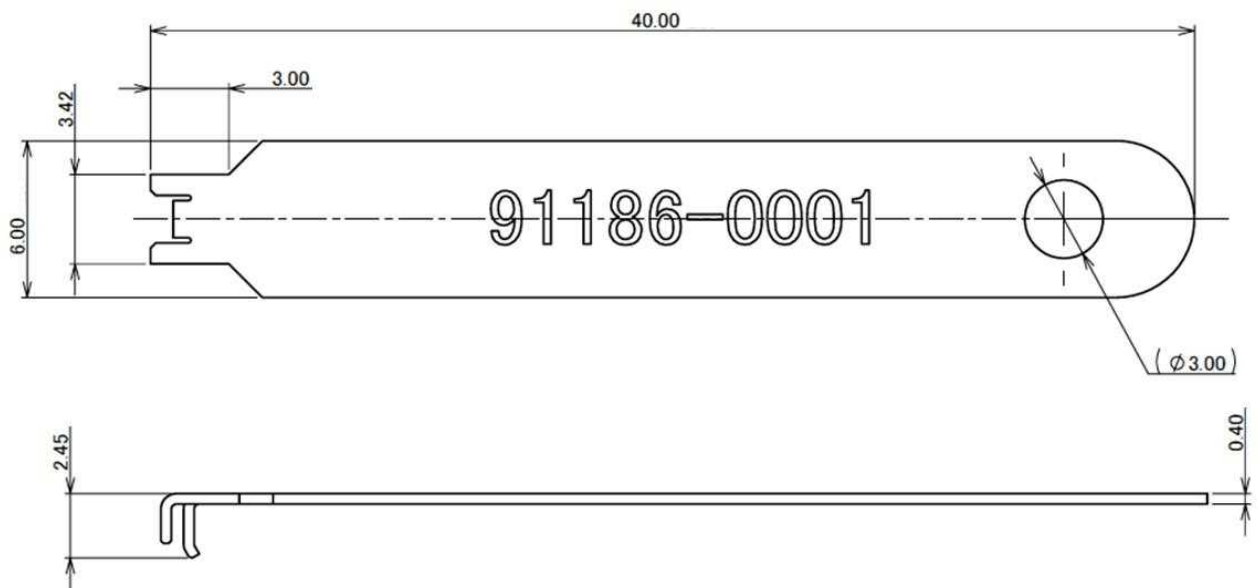


Fig. 3 Recommended mating and unmating JIG

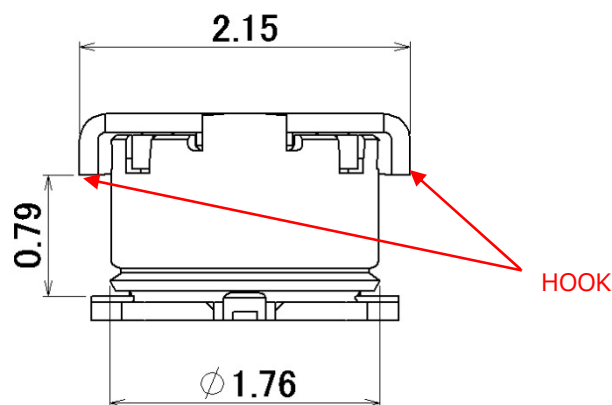


Fig. 4 The hook for mating/unmating jig

Connector insertion manual

1. Procedures for mating by hands

① How to hold a cable connector

Hold a cable end of the cable connector as shown in Fig. 5.

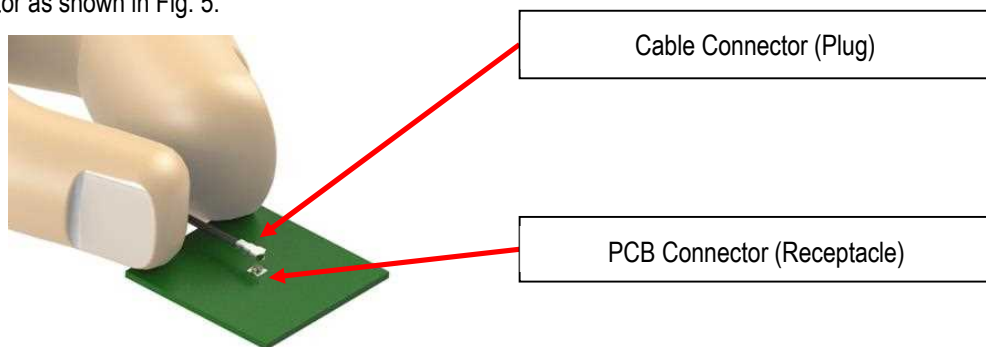


Fig. 5

② Connector setting

Place a cable connector on a PCB connector as shown in Fig. 6.

Then, move left and right, and back and forth slightly to make sure the connectors are firmly set.

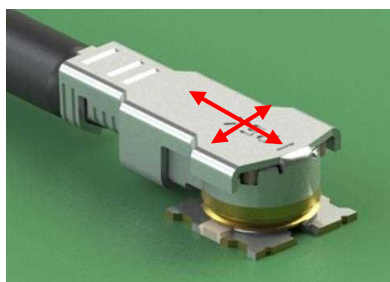


Fig. 6

Move the plug left and right, and back and forth slightly to make sure the connectors are firmly set.

③ How to mate

Push the center of a cable connector vertically as shown in Fig. 7. Connector clicks when mating is completed.

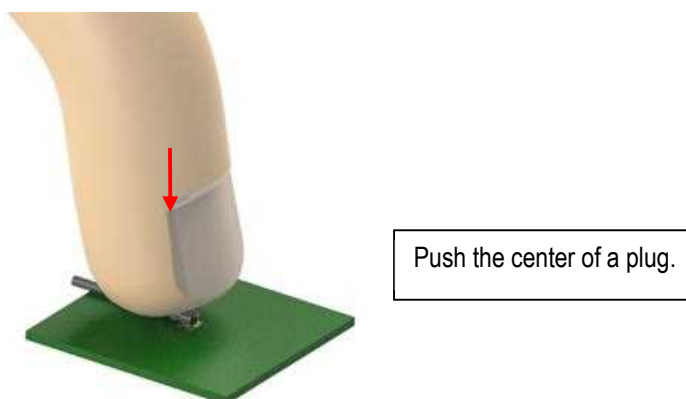


Fig. 7

2. Procedures for mating by mating and unmating JIG

① How to hold a cable connector

As shown in Fig. 8-a, slide the mating and unmating jig horizontally until the jig stops at the stopper of the plug. The jig should hold entire of the plug hook.



Fig. 8-a

② Connector setting

As shown in Fig. 8-b, place the plug above the receptacle to align mating axis. When the connectors are aligned, move the connectors back and forth to make sure the connectors do not move. Refer to Fig. 8-c below.

③ How to mate

Push the plug vertically with JIG as shown in Fig. 8-d. Connector clicks when mating is completed.

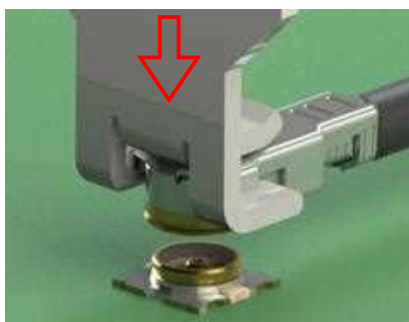


Fig. 8-b

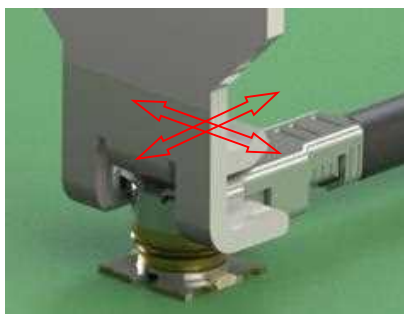


Fig. 8-c

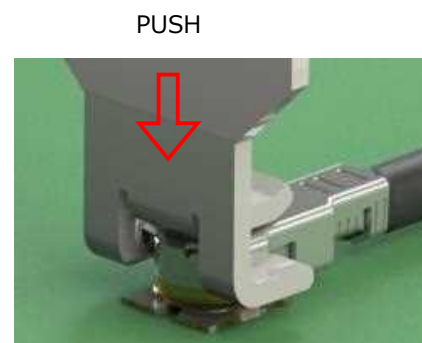


Fig. 8-d

CAUTION

In aligning, the plug and the receptacle should lightly touch each other, and do not apply the insertion load. The insertion load may damage the connectors if the connectors were misaligned as shown in figure 9-b.

Correctly aligned



Fig. 9-a

Misaligned

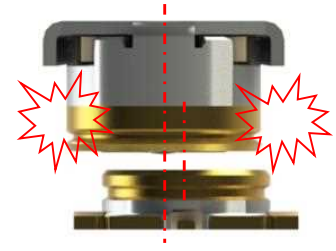


Fig. 9-b

In mating, the plug and the test board must be parallel and connectors should insert straightly. Slant mating, as shown in Fig. 10-b and 10-c, may damage the connectors.

Correct



Fig. 10-a

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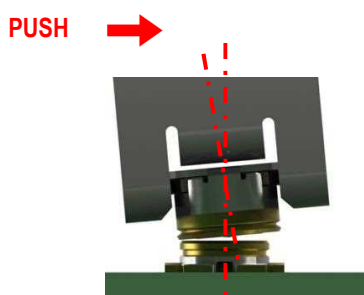


Fig. 10-b

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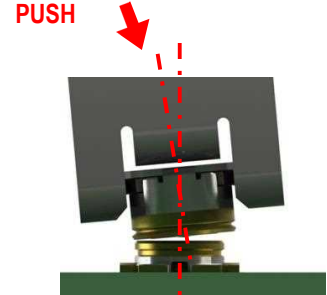


Fig. 10-c

To remove the jig from the connector, slide back the jig parallel to the test board.

Make sure that the jig is completely away from the connector before pulling the jig up vertically.

If pull the jig not separated enough from the plug hook, the connectors may get unmated or mating may get incomplete.

Correct

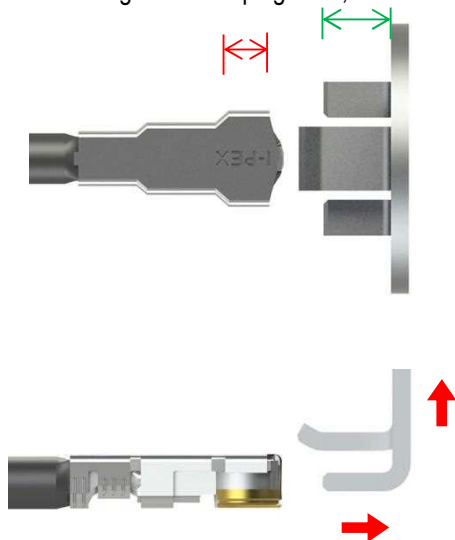


Fig. 11-a

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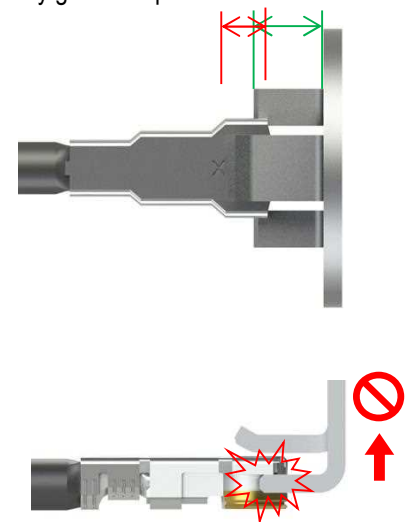


Fig. 11-b

Connector unmating manual

- ① Slide the mating and unmating jig in the PCB parallel direction and attach to the cable connector.(Fig. 12-a)
- ② Slide the jig until it reaches stoppers and holds the cable connector. (Fig. 12-b)
- ③ Pull up the jig vertically from the PCB surface. (Fig. 12-c)

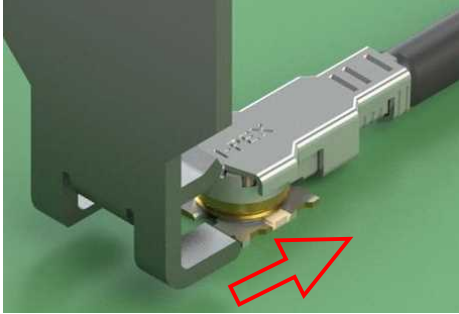


Fig. 12-a

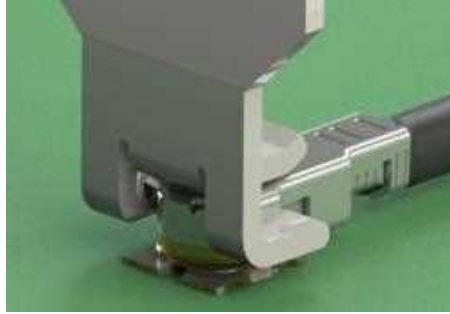


Fig. 12-b

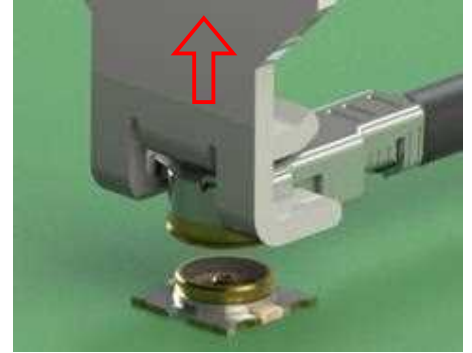


Fig. 12-c

CAUTION

Mating and unmating jig must be pulled up vertically from the PCB surface. (Fig. 13)

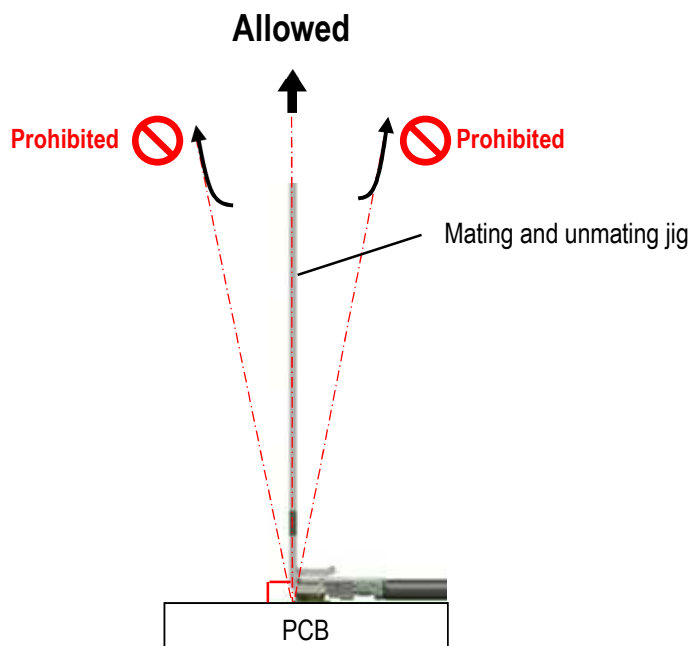


Fig. 13

Caution in cable connector handling

It may damage the connector and cause coming off from receptacle connector when operator gives continuous force to the indicated directions in Fig. 14.

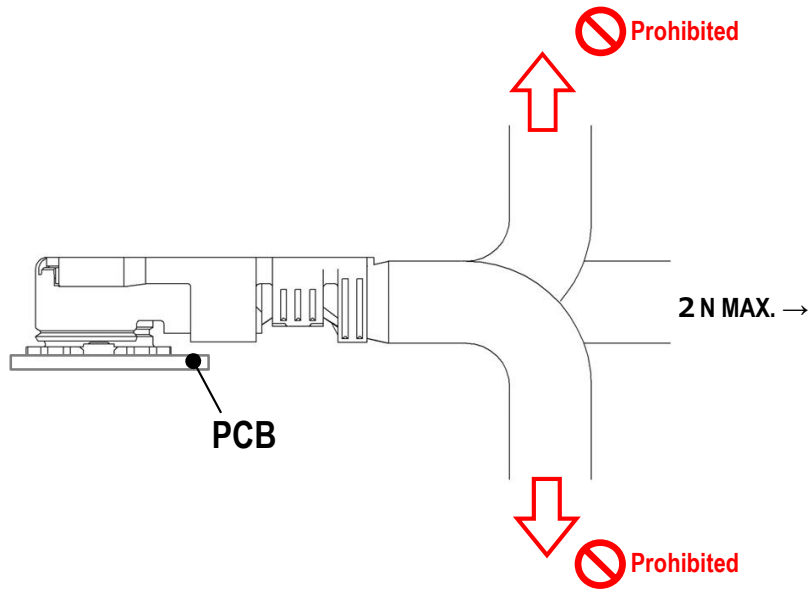


Fig. 14

Recommended vacuum nozzle for mounter

The recommended shape and vacuum position of the mounter vacuum nozzle are as follows, Fig. 15

- Recommended shape nozzle (example)

JUKI Automation Systems Co., Ltd. RS-1 No.7503

Tip outer diameter: $\Phi 1.0$ Tip inner diameter: $\Phi 0.5 \sim 0.6$

- Recommended vacuum position

Set the vacuum nozzle tip on the housing surface inside the connector cylinder to vacuum the connector.

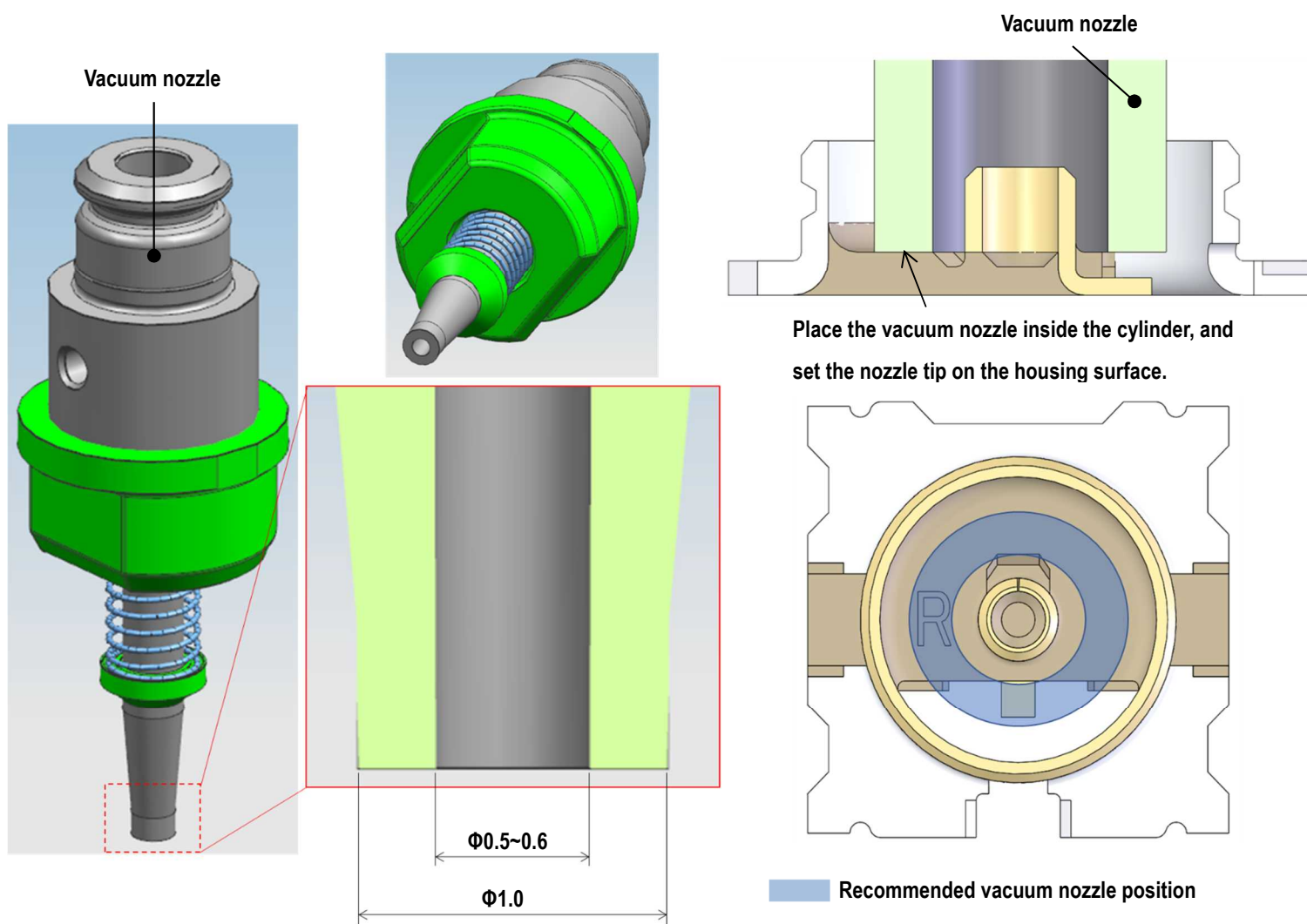


Fig. 15