

INSTALLATION GUIDE

MFR-41CPU

MFR-61CPU

Redundant CPU Card for MFR-4100/MFR-6100

1st Edition - Rev. 1

Upon Receipt

MFR-41CPU/MFR-61CPU cards and their accessories are fully inspected and adjusted prior to shipment. Check your received items against the packing list below. Check to ensure no damage has occurred during shipment. If damage has occurred, or items are missing, inform your supplier immediately.

◆ **Packing List**

ITEM	QTY	REMARKS
MFR-41CPU or MFR-61CPU	1 set	MFR-41CPU: CPU card of MFR-4100 MFR-61CPU: CPU card of MFR-6100
Installation Guide	1	This leaflet

1. Prior to Starting

MFR-41CPU is an optional redundant CPU card for MFR-4100 units.

MFR-61CPU is an optional redundant CPU card for MFR-6100 units.

The MFR-41CPU/MFR-61CPU is specifically designed for the MFR-4100/MFR-6100. A standard MFR-4100/MFR-6100 comes with a single CPU card installed into one of its two CPU slots. The optional MFR-41CPU/MFR-61CPU allows you to operate the MFR-4100/MFR-6100 continuously, even if one CPU card fails.



CAUTION

Installing this option, which requires accessing the unit interior by opening the panel, should only be done by qualified technical personnel.

2. Installation / Replacement of MFR-41CPU

2-1. How to Install a New Card (if only one card installed)

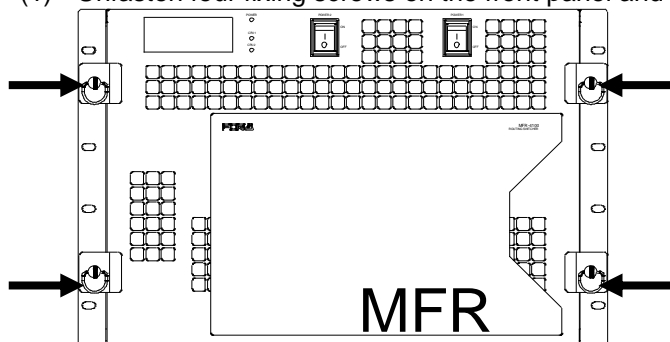
This section describes how to install a new MFR-41CPU and change the CPU from a standalone configuration to a redundant configuration.

IMPORTANT

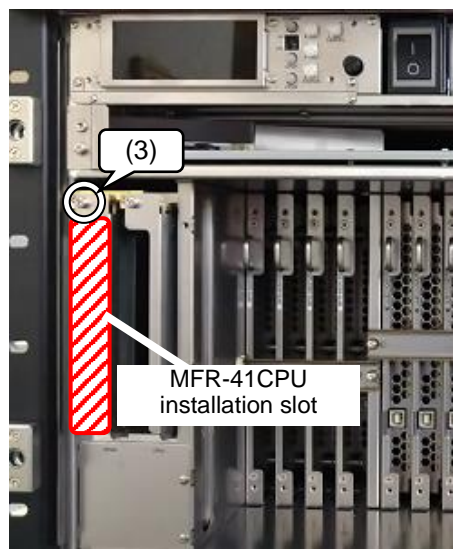
Do not touch any components on the MFR-41CPU to protect it from electrostatic damage.

The following procedure shows how to install the CPU2 card (MFR-41CPU).

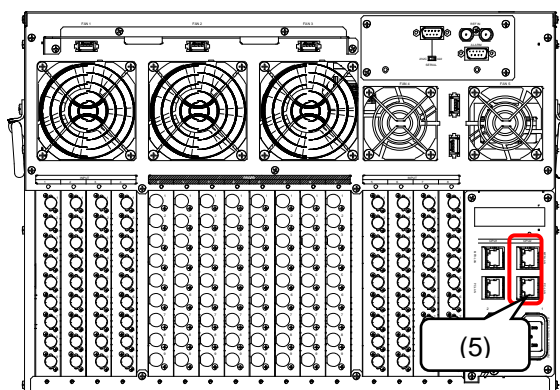
- (1) Unfasten four fixing screws on the front panel and detach the front panel.



- (2) Insert a new CPU card (MFR-41CPU) firmly into its slot.
- (3) Tighten the fixing screw on the CPU card (MFR-41CPU).



- (4) Re-install the front panel.
- (5) Insert LAN cables into CPU2 MFR-LAN and PC-LAN ports and connect the cables with respective hubs.
- (6) If necessary, configure the network settings for CPU2 and the settings for the number of CPU operating days.
(See "Main Unit Settings" for network settings and "Warning of CPU Consecutive Operating Days/ Automatic Reboot" in the MFR-4100/6100 Web Control Operation Manual.)



The card installation is now complete.

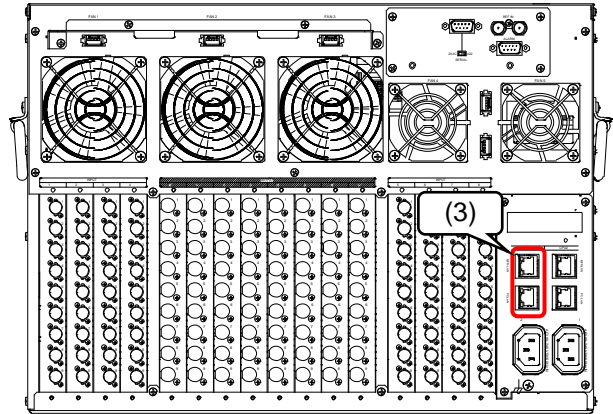
2-2. How to Replace a Card (if only one card installed)

The following procedure shows how to replace the CPU1 card with a new one (MFR-41CPU).

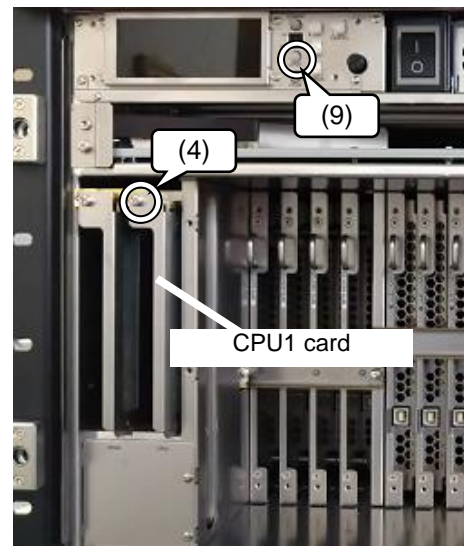
IMPORTANT

Do not touch the components on the MFR-41CPU to protect it from electrostatic damage.

- (1) Turn off the power supply switches of the MFR-4100 unit.
- (2) Unfasten four fixing screws on the front panel and detach the front panel.
- (3) Detach the cables from CPU1 MFR-LAN and PC-LAN.



- (4) Loosen the fixing screw on the CPU1 card.
- (5) Grab the CPU1 card handle and slowly remove (pull out) the card.
- (6) Insert a new CPU card firmly into the slot.
- (7) Tighten the fixing screw on the CPU card.
- (8) Turn on the power supply switches of the MFR-4100 unit.
- (9) Check that CPU1 LED is lit.



- (10) Re-connect LAN cables detached in Step (3) into the CPU1 MFR-LAN and PC-LAN connection ports.
- (11) Re-install the front panel.

The card replacement is now complete.

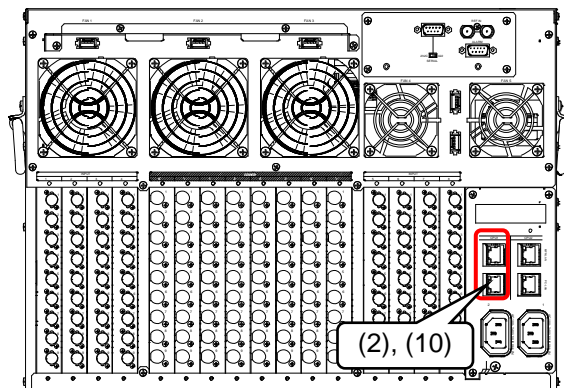
2-3. How to Replace a Card (if two CPU cards installed)

The following procedure shows how to replace the CPU1 card with a new one (MFR-41CPU).

IMPORTANT

Do not touch the components on the MFR-41CPU to protect it from electrostatic damage.

- (1) Verify that the LED for CPU2 is lit on the front panel. (CPU2 is the active CPU).
- (2) Detach the cables from CPU1 MFR-LAN and PC-LAN.



- (3) Unfasten four fixing screws on the front panel and detach the front panel.
- (4) Loosen the fixing screw on the CPU1 card.
- (5) Grab the CPU1 card handle and slowly remove (pull out) the card.
- (6) Insert a new CPU card firmly into the slot.
- (7) On the menu display, in the **SETTING > SWAP ACTIVE CPU** menu, verify that **READY FOR SWAP** is **YES**.
If **READY FOR SWAP** is **NO**, check the message.
(See "Swapping Active CPU" in the MFR-4100 Operation Manual.)
- (8) Pull out the new CPU card and reinsert it. The CPU card will reboot.
- (9) Tighten the fixing screw on the CPU card.
- (10) Re-connect LAN cables detached in Step (2) into the CPU1 MFR-LAN and PC-LAN connection ports.
- (11) On the menu display, open the **SETTING > SWAP ACTIVE CPU** menu and turn **CONTROL** to select **EXECUTE**, then press **CONTROL**.
"Now Executing..." is displayed and the active CPU is switched from CPU2 to CPU1. (See "Swapping Active CPU" in the MFR-4100 Operation Manual.)
- (12) Check that CPU1 LED is lit.
- (13) Re-install the front panel.



The card replacement is now complete.

When replacing the CPU2 card.

Follow the same procedure as above except step (11).

If necessary, configure the network settings for CPU2 and the settings for the number of CPU operating days.

(See "Main Unit Settings" for network settings and "Warning of CPU Consecutive Operating Days/ Automatic Reboot" in the MFR-4100/6100 Web Control Operation Manual.)

3. Installation / Replacement of MFR-61CPU

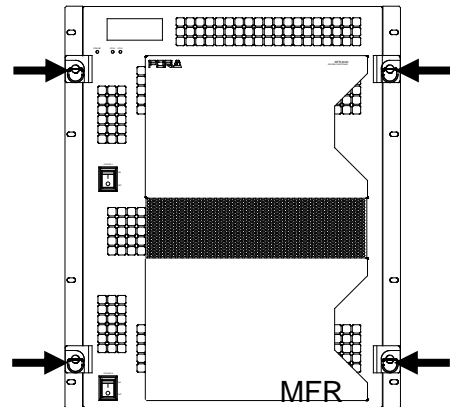
3-1. How to Install a New Card (if only one card installed)

This section describes how to install a new MFR-61CPU and change the CPU from a standalone configuration to a redundant configuration.

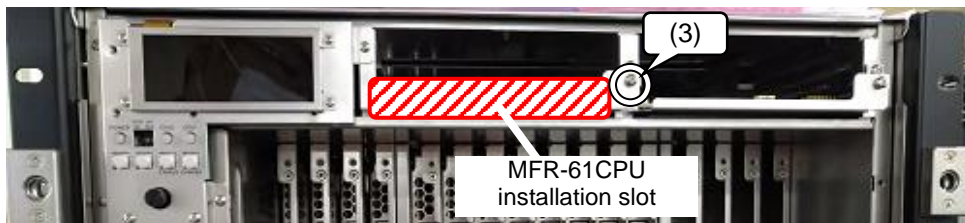
IMPORTANT

Do not touch any components on the MFR-61CPU to protect it from electrostatic damage.

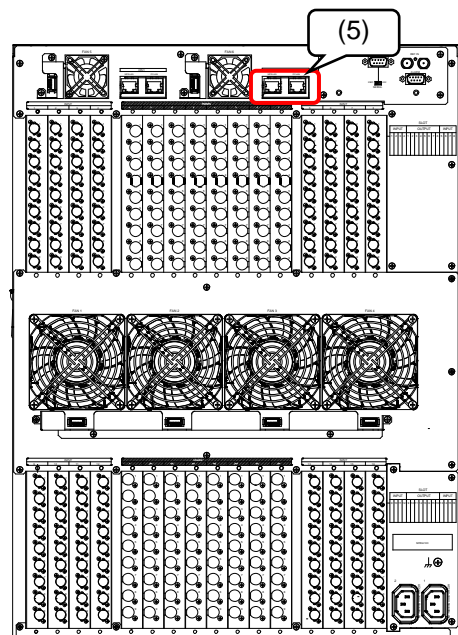
- (1) Unfasten four fixing screws on the front panel and detach the front panel.



- (2) Insert a new CPU card (MFR-61CPU) firmly into its slot.
- (3) Tighten the fixing screw on the CPU card (MFR-61CPU).



- (4) Re-install the front panel.
- (5) Insert LAN cables into CPU2 MFR-LAN and PC-LAN ports and connect the cables with respective hubs.
- (6) If necessary, configure the network settings for CPU2 and the settings for the number of CPU operating days.
(See "Main Unit Settings" for network settings and "Warning of CPU Consecutive Operating Days/ Automatic Reboot" in the MFR-4100/6100 Web Control Operation Manual.)



The card installation is now complete.

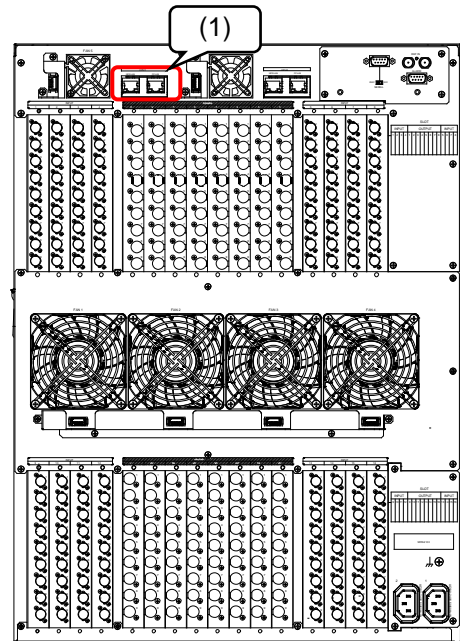
3-2. How to Replace a Card (if only one card installed)

The following procedure shows how to replace the CPU1 card with a new one (MFR-61CPU).

IMPORTANT

Do not touch any components on the MFR-61CPU to protect it from electrostatic damage.

- (1) Turn off the power supply switches of the MFR-6100 unit.
- (2) Unfasten four fixing screws on the front panel and detach the front panel.
- (3) Detach the cables from CPU1 MFR-LAN and PC-LAN.
- (4) Loosen the fixing screw on the CPU1 card.
- (5) Grab the CPU1 card handle and slowly remove (pull out) the card.
- (6) Insert a new CPU card firmly into the slot.
- (7) Tighten the fixing screw on the CPU card.
- (8) Turn on the power supply switches of the MFR-6100 unit.



- (9) Check that CPU1 LED is lit.



- (10) Re-connect LAN cables detached in Step (3) into the CPU1 MFR-LAN and PC-LAN connection ports.
- (11) Re-install the front panel.

The card replacement is now complete.

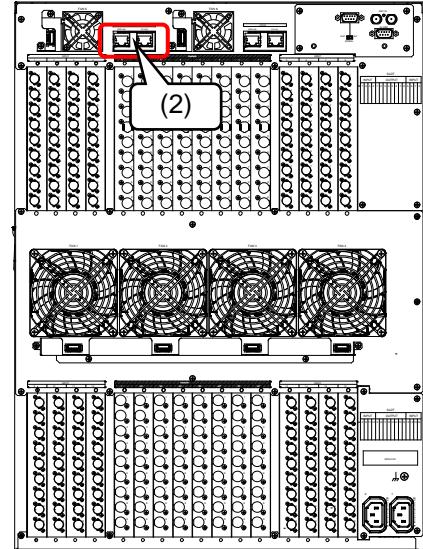
3-3. How to Replace a Card (if two CPU cards installed)

The following procedure shows how to replace the CPU1 card with a new one (MFR-61CPU).

IMPORTANT

Do not touch the components on the MFR-61CPU to protect it from electrostatic damage.

- (1) Verify that the LED for CPU2 is lit on the front panel. (CPU2 is the active CPU).
- (2) Detach the cables from CPU1 MFR-LAN and PC-LAN.
- (3) Unfasten four fixing screws on the front panel and detach the front panel.
- (4) Loosen the fixing screw on the CPU1 card.
- (5) Grab the CPU1 card handle and slowly remove (pull out) the card.
- (6) Insert a new CPU card firmly into the slot.
- (7) On the menu display, in the **SETTING > SWAP ACTIVE CPU** menu, verify that **READY FOR SWAP** is **YES**. If **READY FOR SWAP** is **NO**, check the message. (See “Swapping Active CPU” in the MFR-6100 Operation Manual.)



- (8) Pull out the new CPU card and reinsert it. The CPU card will reboot.
- (9) Tighten the fixing screw on the CPU card.



- (10) Re-connect LAN cables detached in Step (2) into the CPU1 MFR-LAN and PC-LAN connection ports.
- (11) On the menu display, open the **SETTING > SWAP ACTIVE CPU** menu and turn **CONTROL** to select **EXECUTE**, then press **CONTROL**. “Now Executing...” is displayed and the active CPU is switched from CPU2 to CPU1. (See “Swapping Active CPU” in the MFR-6100 Operation Manual for details.)
- (12) Check that CPU1 LED is lit.
- (13) Re-install the front panel.

The card replacement is now complete.

When replacing the CPU2 card.

Follow the same procedure as above except step (11).

If necessary, configure the network settings for CPU2 and the settings for the number of CPU operating days.

(See “Main Unit Settings” for network settings and “Warning of CPU Consecutive Operating Days/ Automatic Reboot” in the MFR-4100/6100 Web Control Operation Manual.)



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