INSTALLATION GUIDE

MFR-41CPU
MFR-61CPU

Redundant CPU Card for MFR-4100/MFR-6100

1st Edition - Rev. 2

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

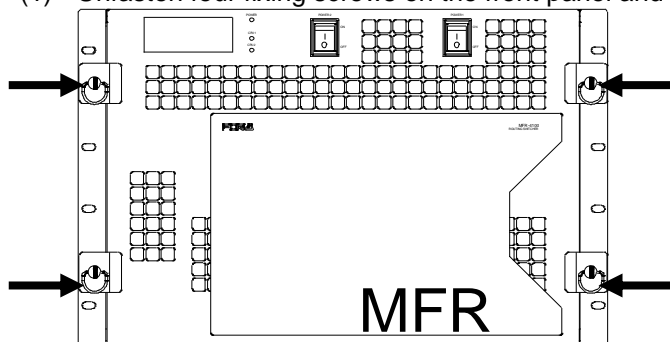## 2-1. How to Install a New Card (if only one card installed)

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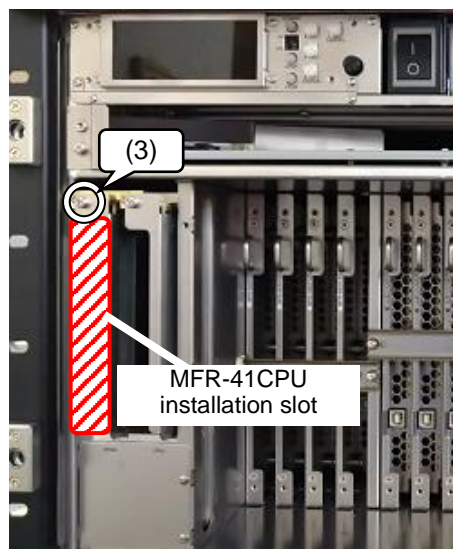
IMPORTANT

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

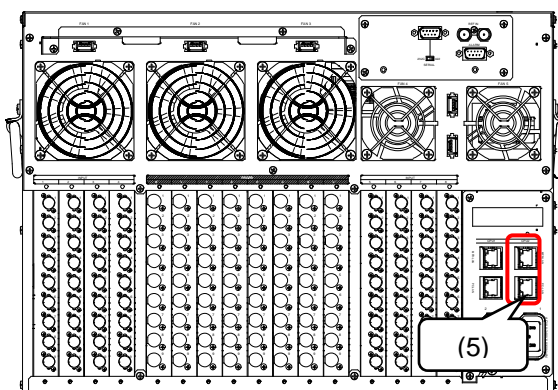The following procedure shows how to install the CPU2 card (MFR-41CPU).

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

MFR

(2)　Insert a new CPU card (MFR-41CPU) firmly into its slot.

(3)　Tighten the fixing screw on the CPU card (MFR-41CPU).

(3)

MFR-41CPU
installation slot

(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.
(See "Main Unit Settings" in the MFR-4100/6100 Web-based Control Operation Manual for network settings.)

(5)

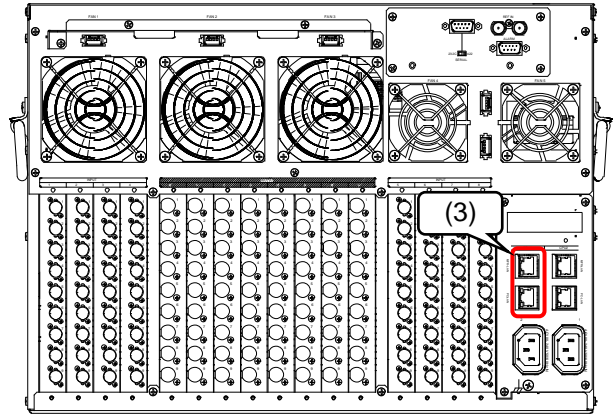The card installation is now complete.

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).
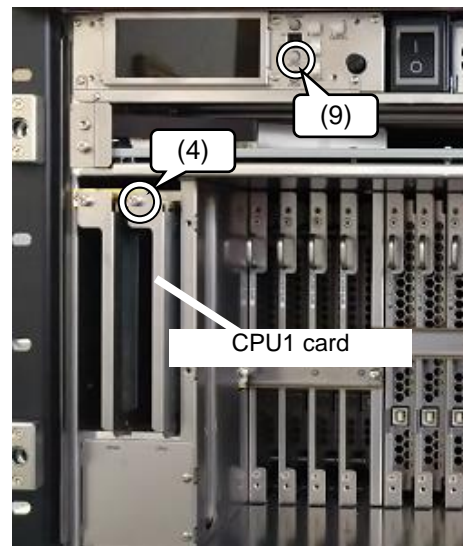
IMPORTANT

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.
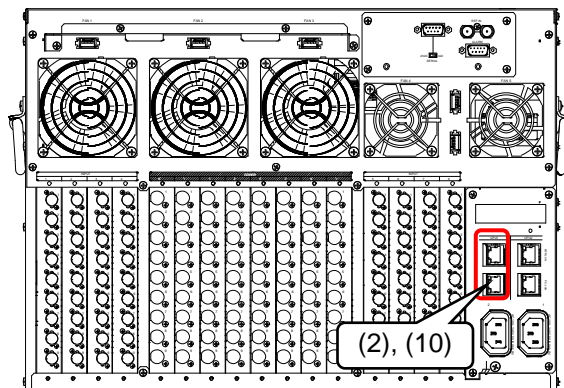(11) Re-install the front panel.

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.

(2), (10)

(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.

(1), (12)

(4), (9)

CPU1 card

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.
(See "Main Unit Settings" in the MFR-4100/6100 Web Control Operation Manual for network settings.)
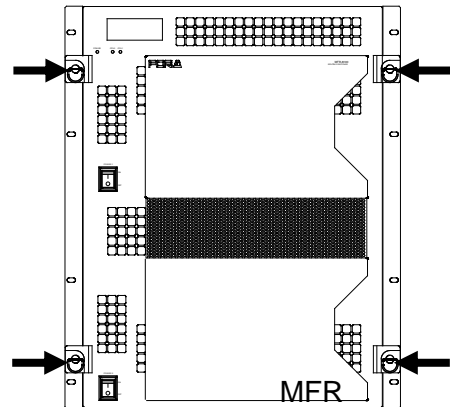
3. Installation / Replacement of MFR-61CPU

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.
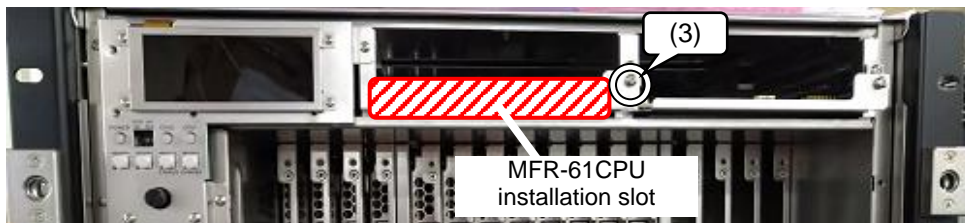
IMPORTANT

Do not touch any components on the MFR-61CPU to protect it from electrostatic damage.
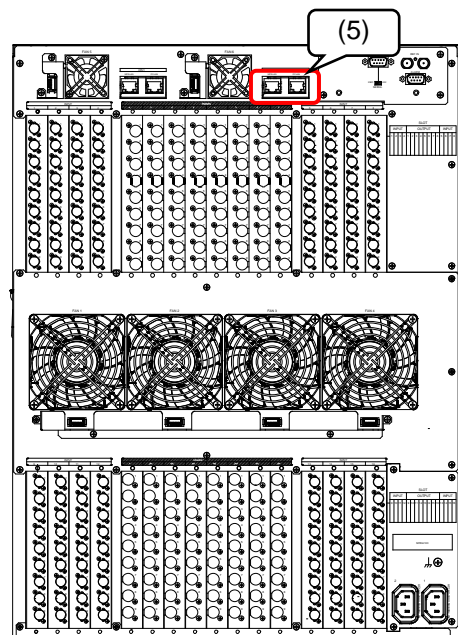
(1) Unfasten four fixing screws on the front panel and detach the front panel.

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

MFR-61CPU installation slot

(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.
(See "Main Unit Settings" in the MFR-4100/6100 Web-based Control Operation Manual for network settings.)

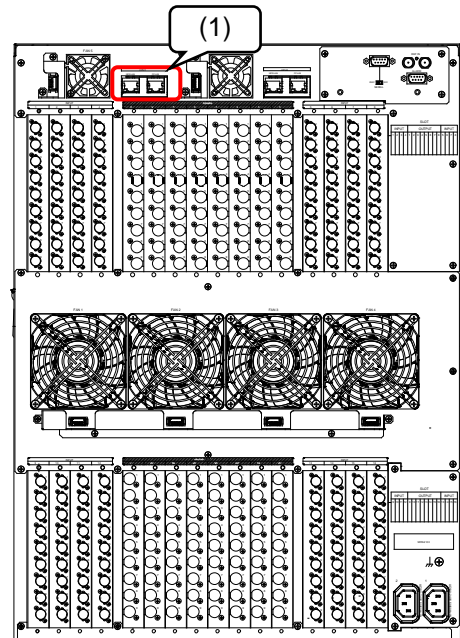The card installation is now complete.

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.

CPU1 card

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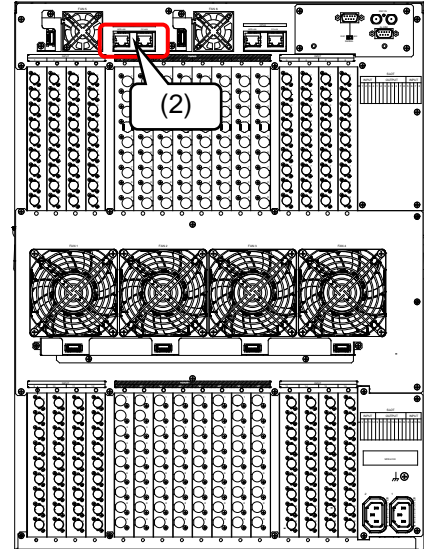(11) Re-install the front panel.

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.

CPU1 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.
(See "Main Unit Settings" in the MFR-4100/6100 Web-based Control Operation Manual for network settings.)

FOR.A ®

FOR-A COMPANY LIMITED
Head Office 3-8-1 Ebisu, Shibuya-ku, Tokyo 150-0013, Japan
Overseas Division Tel: +81(0)3-3446-3936 Fax: +81(0)3-3445-5116
Japan Branch Offices Osaka/Okinawa/Fukuoka/Hiroshima/Nagoya/Sendai/Sapporo
R&D/Production Sakura Center/Sapporo Center

FOR-A Corporation of America Corporate Office/Service Center
11155 Knott Ave., Suite G, H & I, Cypress, CA 90630, U.S.A.
Tel: +1 714-894-3311 Fax: +1 714-894-5399

FOR-A Corporation of America Northeast Office
1360 Clifton Ave., Clifton, NJ 07012, U.S.A.
Tel: +1 973-220-8471 Fax: +1 714-894-5399

FOR-A Corporation of America Southeast Office
Tel: +1-305-773-7608

FOR-A Corporation of America Support Center
2400 N.E. Waldo Road, Gainesville, FL 32609, U.S.A.
Tel: +1 352-371-1505 Fax: +1 714-894-5399

FOR-A Latin America and the Caribbean Miami Office
Tel: +1 657-600-5759

FOR-A Latin America and the Caribbean Sao Paulo Office
Tel: +55 (0)11-99913-3751

FOR-A Europe S.r.l.
Via Volturno, 37, 20861, Brugherio MB, Italy
Tel: +39 (0)39-916-4811

FOR A UK Limited
Trident Court, 1 Oakcroft Road Chessington, KT9 1BD, U.K.
Tel: +44 (0)20-3044-2935 Fax: +44 (0)20-3044-2936

FOR-A Italia S.r.l.
Via Volturno, 37, 20861, Brugherio MB, Italy
Tel: +39 (0)39-881-086

FOR-A Corporation of Korea
1007, 57-5, Yangsan-ro, Yeongdeungpo-gu, Seoul 07271, Korea
Tel: +82 (0)2-2637-0761 Fax: +82 (0)2-2637-0760

FOR-A China Limited
1618 Huateng Building, No. 302, 3 District, Jinsong, Chaoyang, Beijing 100021, China
Tel: +86 (0)10-8721-6023 Fax: +86 (0)10-8721-6033

FOR-A Middle East Africa Office
Aurora Tower, Office 1407, Dubai Media City, P.O. Box 502688, Dubai, UAE
Tel: +971 (0)4 551 5830 Fax: +971 (0)4 551 5832

FOR-A India Private Limited. Mumbai Office
2nd Floor, Valecha Chambers, Link Road, Andheri (W), Mumbai 400053, India
Tel: +91-(0)22-2673-3623 Fax: +91-(0)22-2639-3415

FOR-A India Private Limited. Delhi Office
8th floor, World Trade Tower, Sector-16, Noida, Uttar Pradesh 201301, India
Tel: +91-(0)12-0423-8674

FOR-A South East Asia Office
Studio 09, Rm. A1, 3/F., Phase 1, Hang Fung Ind. Bldg., 2G Hok Yuen St., Hung Hom, Hong Kong
Tel: +852 2110-1352

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