

INSTALLATION GUIDE

MV-12SDI

MV-12PCI

MV-12IF

MV-12SDO

MV-12PCO

MV-12PS

MV-1200 Series Options

1st Edition

Upon Receipt

MV-1200 Series optional card and AC adaptor units are fully inspected and adjusted prior to shipment. Check your received items against the packing lists below. Check to ensure no damage has occurred during shipment. If damage has occurred, or items are missing, inform your supplier immediately.

◆ MV-12SDI

ITEM	QTY	REMARKS
MV-12SDI	1	SDI Composite card (4 inputs) for MV-1200 series
Screw (M3x6 PAN)	2	
Screw (M3x6 SEMS)	2	Threaded washer screw
Installation guide	1	This guide

◆ MV-12PCI

ITEM	QTY	REMARKS
MV-12PCI	1	HDMI and DVI card (4 inputs) for MV-1200 series
Screw (M3x6 PAN)	2	
Screw (M3x6 SEMS)	2	Threaded washer screw
HDMI stopper	4	Set of stopper and fastener
Installation guide	1	This guide

◆ MV-12IF

ITEM	QTY	REMARKS
MV-12IF	1	Interface card for MV-1200 series
Screw (M3x6 PAN)	2	
Screw (M3x6 SEMS)	2	Threaded washer screw
Installation guide	1	This guide

◆ MV-12SDO

ITEM	QTY	REMARKS
MV-12SDO	1	3G/HD-SDI card (4 outputs) for MV-1200 series
Screw (M3x6 PAN)	2	
Screw (M3x6 SEMS)	2	Threaded washer screw
Screw (M3x35 FLAT HEAD)	2	
Air duct	1	
Cable tie	2	
Fan	1	
Fan mount bracket	1	
Installation guide	1	This guide

◆ **MV-12PCO**

ITEM	QTY	REMARKS
MV-12PCO	1	3G/HD-SDI card (4 outputs) for MV-1200 series
Screw (M3x6 PAN)	2	
Screw (M3x6 SEMS)	2	Threaded washer screw
Screw (M3x35 FLAT HEAD)	2	
Air duct	1	
Cable tie	2	
Fan	1	
Fan mounting bracket	1	
HDMI stopper	4	Set of stopper and fastener
Installation guide	1	This guide

◆ **MV-12PS**

ITEM	QTY	REMARKS
MV-12PS	1	AC adaptor
Screw (M3x6 BINDING HEAD)	5	
Code holder	1	
Case Wiring	1	With connectors
Cable fixing bracket	1	
Cable tie	7	
D-sub plate nut	1	
Label	1	
Installation guide	1	This guide

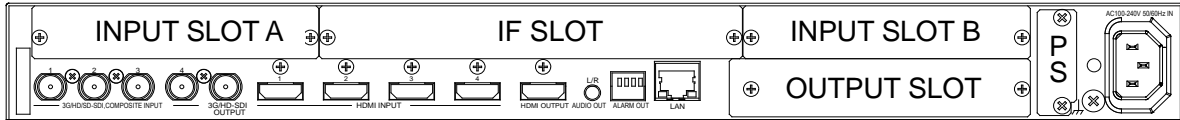
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1. Prior to Starting

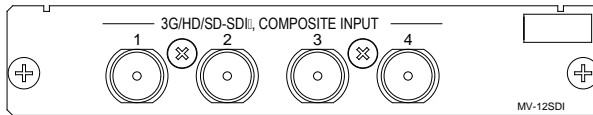
- MV-12SDI and MV-12PCI units are input cards for the MV-1200 Series.
- The MV-12IF is an interface card for the MV-1200 Series.
- MV-12SDO and MV-12PCO units are output cards for the MV-1200 Series.

Each optional card is installable in the following listed slots.



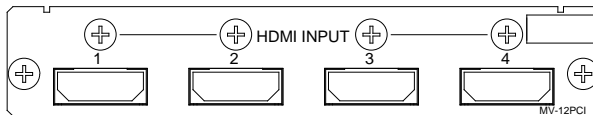
Slot	Installable Optional Item
INPUT SLOT A	MV-12SDI / 12PCI
INPUT SLOT B	
IF SLOT	MV-12IF
OUTPUT SLOT	MV-12SDO / 12PCO
PS	MV-12PS

◆ MV-12SDI (SDI/Analog Composite Card - 4 inputs)



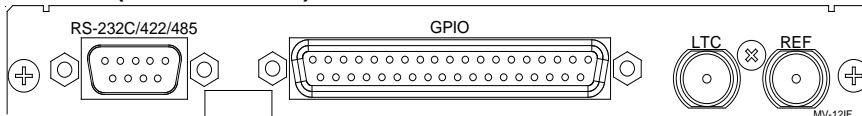
Name	Description
3G-SDI/HD-SDI/SD-SDI/COMPOSITE INPUT 1-4	Inputs 3G-SDI, HD-SDI, SD-SDI, or analog composite signals.

◆ MV-12PCI (HDMI/DVI Card - 4 inputs)



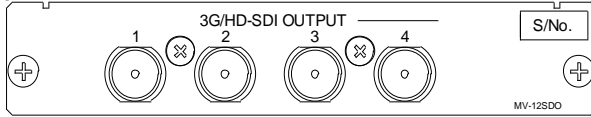
Name	Description
HDMI/DVI INPUT	Inputs HDMI signals. (DVI-D shared + HDCP supported)

◆ MV-12IF (Interface Card)



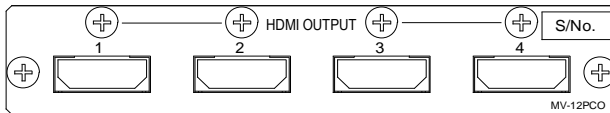
Name	Description
RS-232C/422/485	Used for remote control via a PC or other device.
GPIO	Used for tally input/output, layout switching, and alarm output.
LTC	Used for timecode input.
REF	Used for external reference input.

◆ **MV-12SDO (3G/HD-SDI Card - 4 outputs)**



Name	Description
3G/HD-SDI OUTPUT	Outputs HD-SDI or 3G-SDI (Level-A) signals.

◆ **MV-12PCO (HDMI Card - 4 outputs)**



Name	Description
HDMI OUTPUT	Outputs HDMI video and audio.

◆ **MV-12PS (Redundant power supply)**



Name	Description
DC12V IN	Connects AC adaptor to supply 12VDC.

2. Installation of Optional Cards

Save the MV-1200 Series settings before starting optional card installation. Refer to Layout Manager Operation Manual Sec. 4-2. "Saving/Loading Setting Files."

IMPORTANT

Note that optional cards and power supply installation should be performed by qualified technical personnel familiar with FOR-A equipment. Do not touch any parts of the card with your hands to prevent damage caused by static electricity. Power OFF all connected units / disconnect power cords prior to accessing any part of the interior.

An MV-1200Series card may obstruct other card installation if installed in improper order.

Install multiple optional cards in the following order.

OUTPUT SLOT fans (MV-12SDO / 12PCO) -- MV-12PS -- MV12SDO / 12PCO -- MV-12SDI / 12PCI / 12IF.

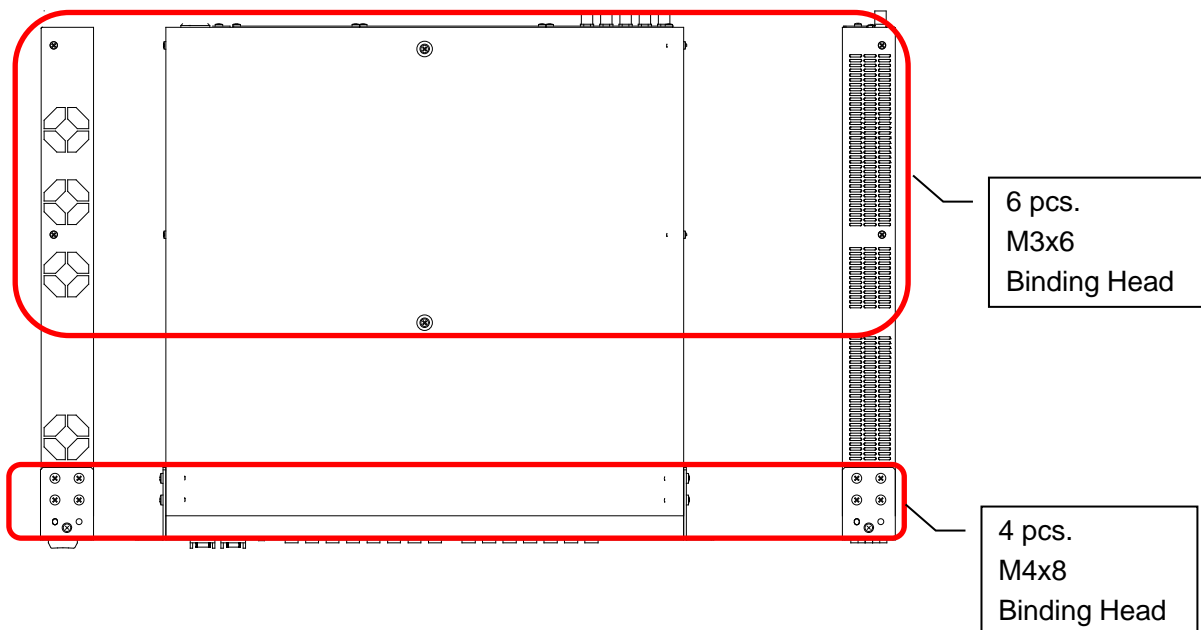
Step-by-Step Guide

2-1. MV-12SDI / 12PCI / 12IF

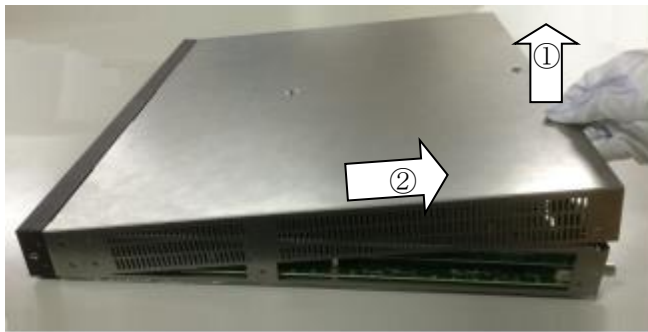
Follow the procedure described below for MV-12SDI, MV-12PCI, and MV-12IF units.

Installable slots are INPUT SLOT A, INPUT SLOT B, or IF SLOT.

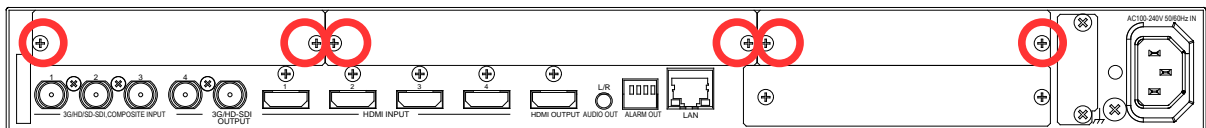
1. Turn the power off and confirm that the power cord is disconnected. Detach the top panel following the procedure described as below.
 - a. Detach all top panel fastening screws. See the figure below.



- b. Lift and pull the back of the top panel out slightly to detach.



- 2. Detach the blank slot panel to install the optional card.
 - a. Detach 2 screws (M3x6 Pan head) fastening the panel.
The screw type is different from those fastening the top plate. Do not mix the screws.



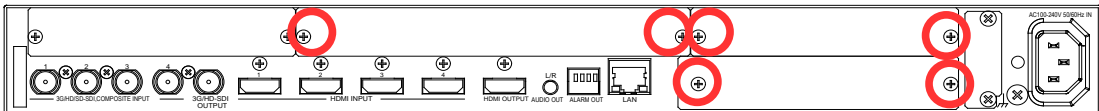
- 3. Install the optional card.
 - a. Align connectors and insert the card from the top, ensuring that the plate of the card is placed outside the chassis.
 - b. Secure the card using the M3x6 SEMS screws. Use M3x6 Pan screws to fasten the card to the rear panel.
- 4. Optional card installation is complete. Put the top panel back on in reverse, referring to Step 1. Go to Sec. 3. "Installation Confirmation."

2-2. MV-12SDO / 12PCO

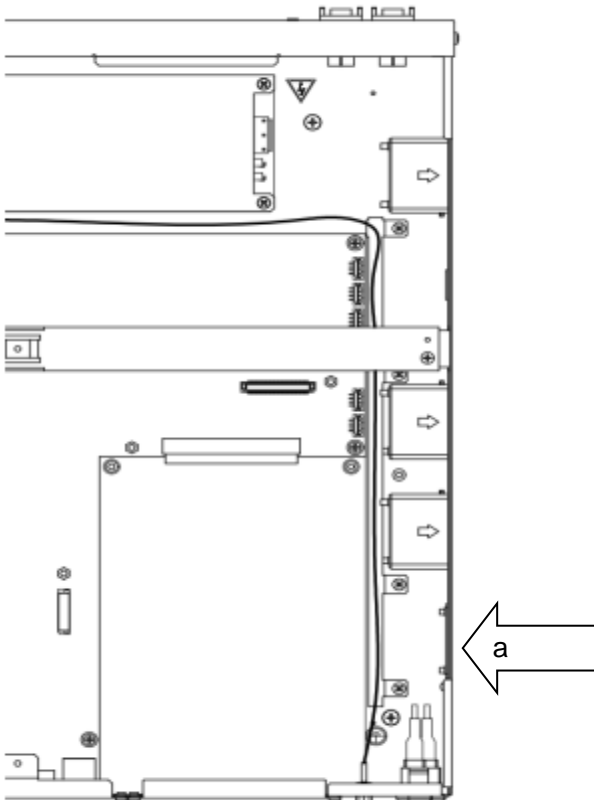
Follow the procedure described as below for MV-12SDO and MV-12PCO units.

The installable slot is OUTPUT SLOT.

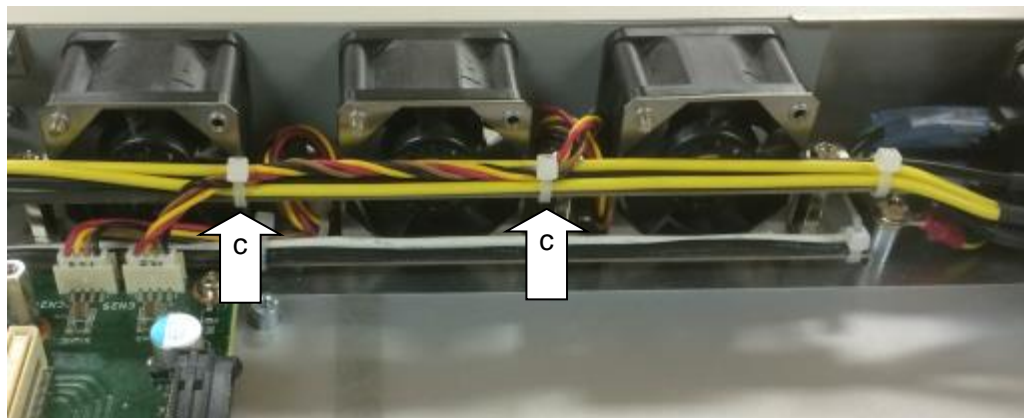
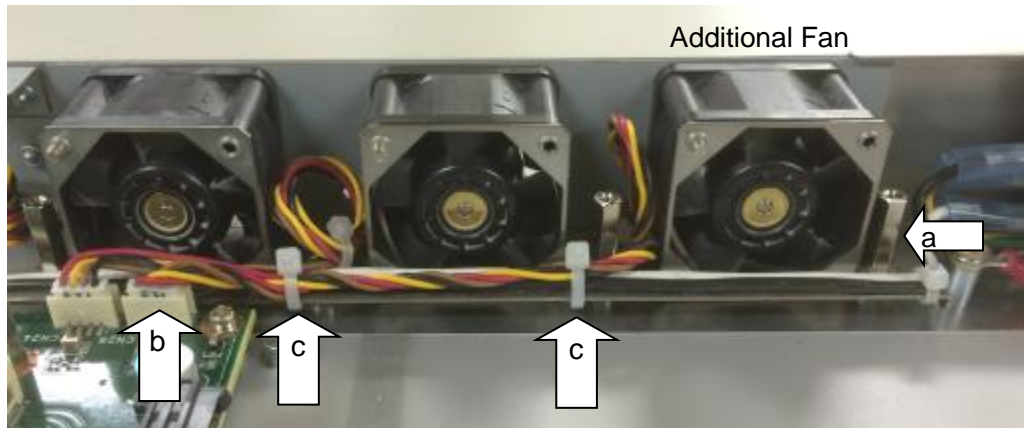
1. Same procedure as that of Sec. 2-1. "MV-12SDI / 12PCI / 12IF" Step 1.
2. When optional card(s) is (are) installed into INPUT SLOT B and/or IF SLOT, they may interfere with the installation of an optional card in OUTPUT SLOT, in which case the optional card(s) should be uninstalled.
 - a. Detach the installed optional card or blank panel of INPUT SLOT B by removing the two M3x6 Pan screws on the rear panel and the two M3x6 SEMS screws on the card and lift the card up at a right angle, to not damage any connectors.
Type of the rear panel screw is different from the ones fastening the top plate, so do not mix the screws.
 - b. When an MV-12IF is installed, un-install the unit following the above procedure.
When a blank panel is on the IF slot, it does not need to be detached.
3. Detach the OUTPUT SLOT blank panel.
 - a. Detach the 2 screws (M3x6 Pan head).
Type of the blank panel screw is different from the ones fastening the top plate, so do not mix the screws.



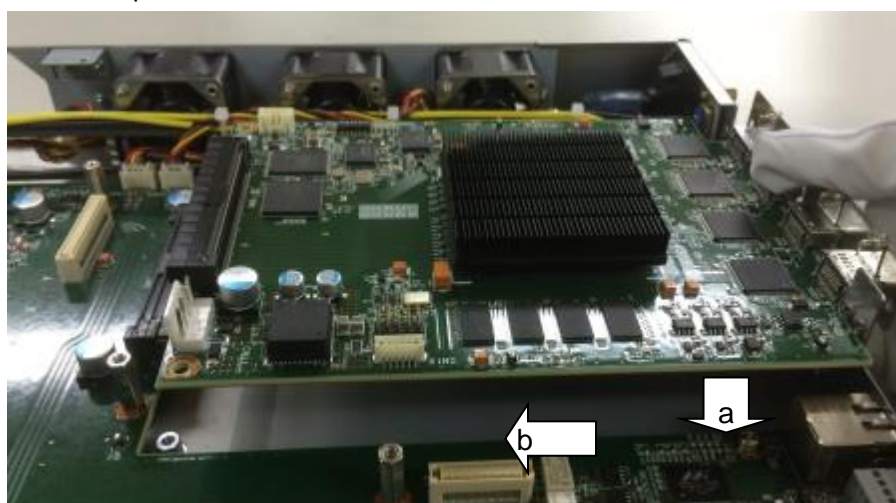
4. Detach the blank panel of the fan slot for the OUTPUT SLOT.
 - a. Detach the 2 screws (M3x6 Pan head) to remove the blank panel.



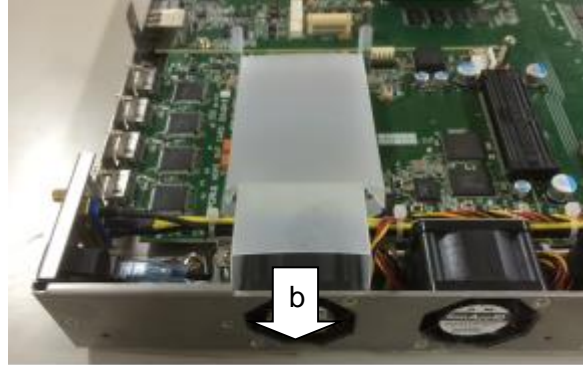
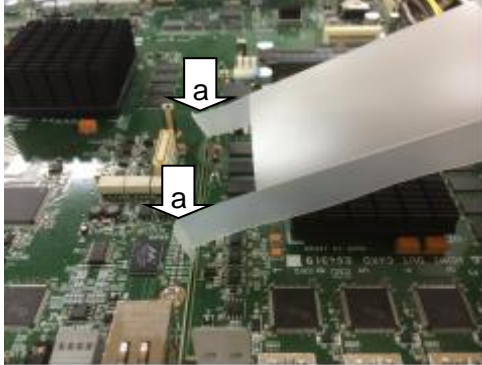
5. Install an additional fan.
 - a. Fasten the fan with brackets and screws (M3x35 Flat head).
 - b. Connect the fan cable connector to CN25 on the main card.
 - c. Fasten the fan cable using the cable ties as shown in the picture below.
When an MV-12PS is already installed, fasten the cable on that side.



6. Install the optional card.
 - a. Put the card in the unit from the top vertically, until the OUTPUT SLOT height, and align the card connectors with the connectors on the MV-1200 Series.
 - b. Secure the card using the M3x6 SEMS screws. Use M3x6 Pan screws to fasten the card to the rear panel.



7. Install the air duct.
 - a. Determine duct location by aligning the optional heat sink location with the duct then insert the protruding duct part between the main card and optional card.
 - b. Bring the duct down to cover the heat sink, being careful not to let the duct interfere with any card parts.
 - c. Insert the duct on both ends of the fan, being careful not to let the duct interfere with the fan cabling.



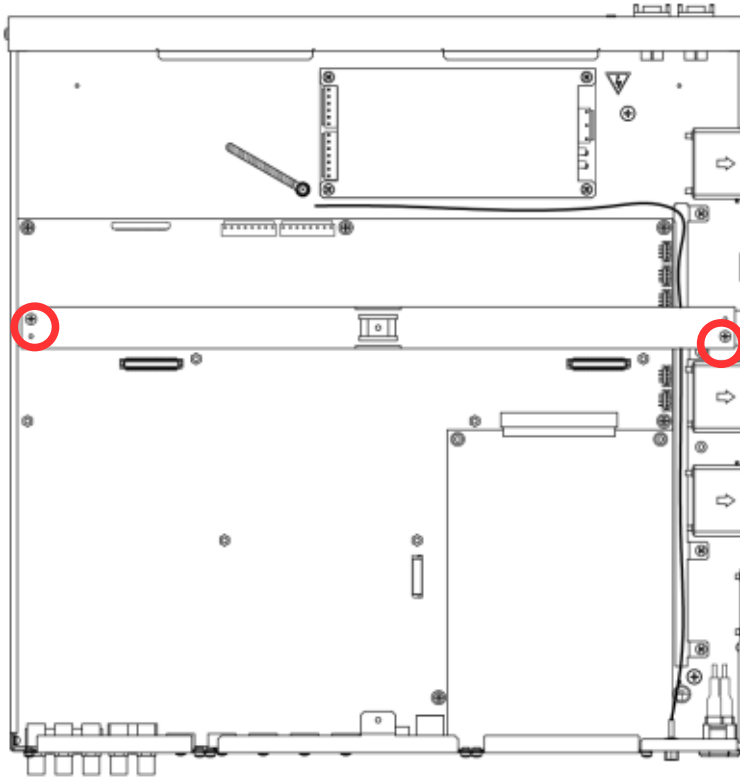
8. Optional card installation is complete. Put the optional card and blank panel that were removed in Step 2, back, then put the top panel back on in reverse, referring to Step 1.

Go to Sec. 3. "Installation Confirmation."

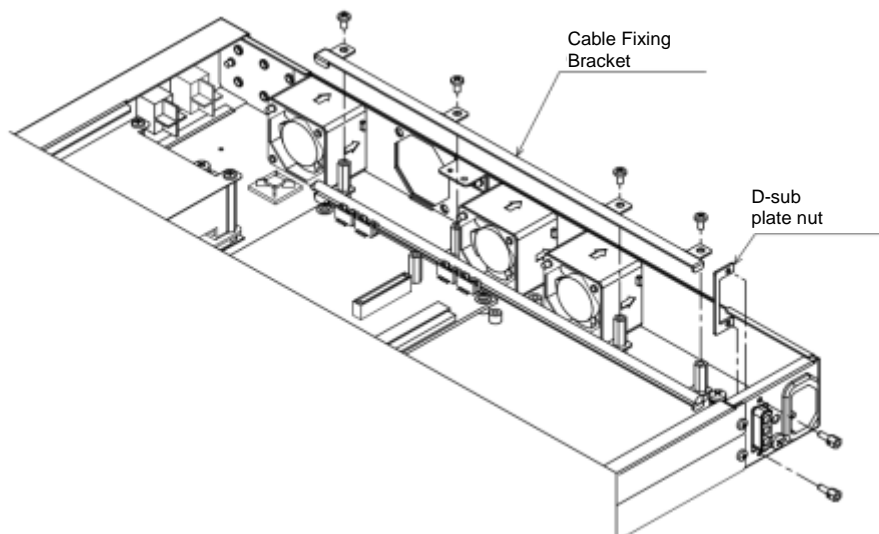
2-3. Installation of Redundant Power Supply MV-12PS

Installing an MV-12PS unit is explained in this section.

1. Same procedure as that of MV-12SDI / 12PCI / 12IF.
2. Remove the center support.
 - a. The center support is fastened by two screws (M3x6 Flat Head) on both ends.

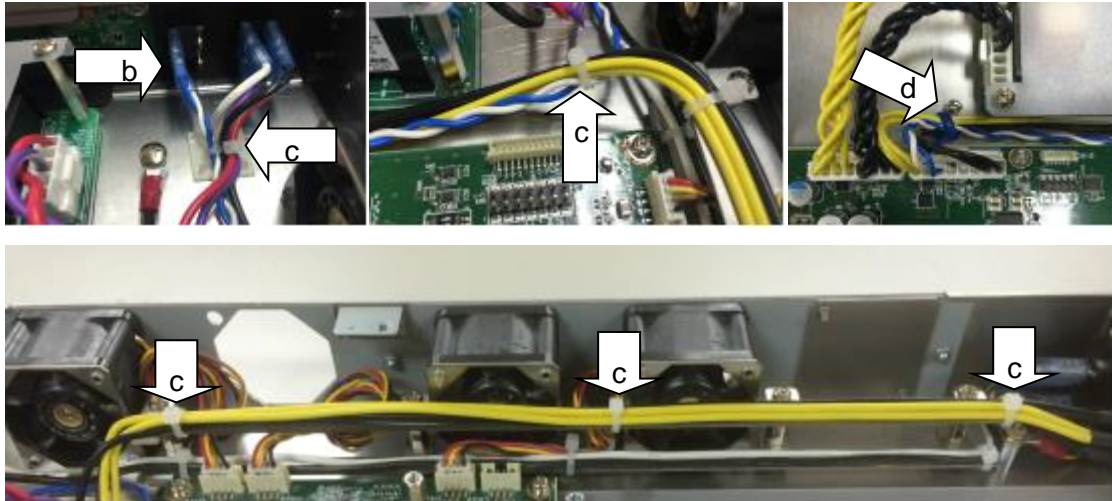


3. When an optional card is already installed in the OUTPUT SLOT, you need to uninstall the duct.
 - a. Uninstall the optional cards in the INPUT SLOT B and the IF SLOT. Detach the two pan screws on the rear panel and two SEMS screws on the card in the unit, then pull up the card vertically, to not damage the connectors.
 - b. Pull up the fan side of the duct and take out the duct from the unit taking care not to break the protruding part of the duct.
4. Install the cable fixing bracket.
 - a. Align the location and fix the bracket with 4 screws (M3x6 Binding)



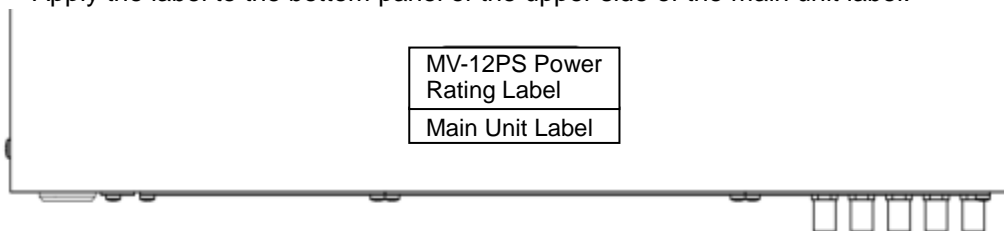
5. Install the internal wiring.
 - a. Fix the rear connector with the connector screws and the D-sub plate tie.
 - b. Connect the blue and white cables with the POWER2 switch on the front.
 - c. Fix the internal wirings to the cable fixing bracket with cable ties.

Detach the cable ties fixing the POWER1 cables, join the MV-12PS cables and fix them altogether again with cable ties.
 - d. Connect the wiring to the main card connector (CN21) and fix the wirings with the cable fixing bracket. Fix the bracket with screws (M3x6).



6. Paste the power rating label.

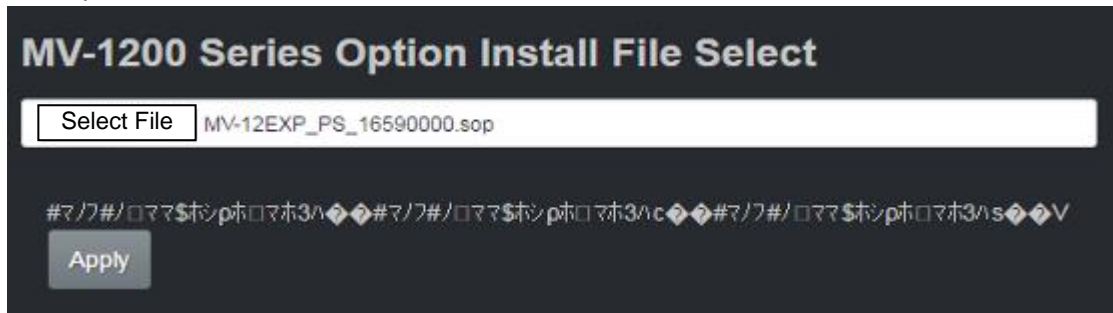
Apply the label to the bottom panel of the upper side of the main unit label.



7. The installation of a redundant power supply is complete. Put the duct, cards, and the center support removed in Steps 2. and 3. back, then put the top panel back in reverse procedure 1.

8. Software Installation

- a. Start up the MV-1200 Series unit and connect to a PC using a LAN cable.
Use a cross cable to connect directly and a straight cable to connect via a HUB.
- b. Access the “SoftwareOptionInstallation” window from the web browser.
The default setting is <http://192.168.0.10/OptionInstall.html> : 192.168.0.10.
Input the main unit IP address as the destination.



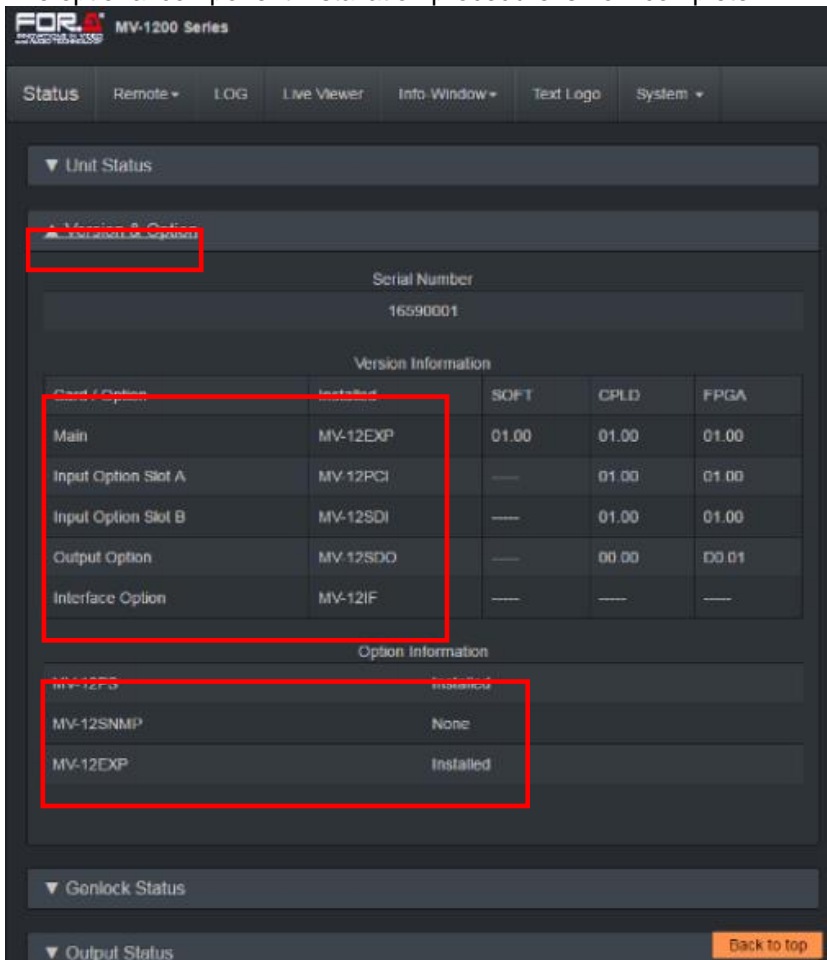
- c. Click “Select File” (Depends on the browser. In case of Internet Explorer, “Reference...”) to select the SOP file to install. (File name is “MV-12[Effective Option name]_[Serial no.].sop)
If a wrong file is selected, the page needs to re-load. (If the SOP file does not agree with the main unit serial number, an error dialog box will appear.)
- d. When a correct file is selected, letters appears on top of the Apply button.
The letters look as garbled characters, but this is normal.
- e. Click apply and import SOP files.
- f. The MV-12PS set up procedure is complete. Reboot the power supply and go to installation verification.

3. Installation Verification

Verify the optional boards/power supply are installed correctly.

1. Access the MV-1200 Web Index window using a web browser.
Default setting is <http://192.168.0.10/>: 192.168.0.10.
Input the main unit IP address as the destination.
2. Tap the **Version & Option** tab and confirm that the installed optional boards/ power supply units are correctly identified in the **Version Information** and **Option Information** lists.
3. When an MV-12PS is installed, supply power via the installed DC12V IN connector and confirm that the POWER 2 status LED on the front panel lights.

The optional component installation procedure is now complete.



Warning

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.



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