

OPERATION MANUAL

HVS-30RU

Remote Unit

HVS-30FP

Front Panel

3rd Edition




Edition Revision History

Edit.	Rev.	Date	Description	Where
1	-	2009/04/24		
1	1	2009/06/05	OSD menu corrected. OSD menu changed. Description added for KEYER and DSK signal selection.	5-2 5-3 5-4-1 to 3
1	2	2010/05/11	Lock function added HVS-300RPS added	5-3
2		2010/10/27	HVS-350HS supported	All
2	1	2011/09/6	USER button functions for clip memory added Appendix 2 added	6-5
3	-	2012/12/14	HVS-390HS supported	Unpacking 1-1, 2-1, 2-2, 3-3, 3-5, 7




Precautions

Important Safety Warnings




[Power]

 Caution	Operate unit only on the specified supply voltage.
	Disconnect power cord by connector only. Do not pull on cable portion.
 Stop	Do not place or drop heavy or sharp-edged objects on power cord. A damaged cord can cause fire or electrical shock hazards. Regularly check power cord for excessive wear or damage to avoid possible fire / electrical hazards.


[Grounding]

 Caution	Ensure unit is properly grounded at all times to prevent electrical shock hazard.
 Hazard	Do not ground the unit to gas lines, units, or fixtures of an explosive or dangerous nature.
 Caution	Ensure power cord is firmly plugged into AC outlet.




[Operation]

 Hazard	Do not operate unit in hazardous or potentially explosive atmospheres. Doing so could result in fire, explosion, or other dangerous results.
 Hazard	Do not allow liquids, metal pieces, or other foreign materials to enter the unit. Doing so could result in fire, other hazards, or unit malfunction.
	If foreign material does enter the unit, turn power off and disconnect power cord immediately . Remove material and contact authorized service representative if damage has occurred.


[Transportation]

 Caution	Handle with care to avoid shocks in transit. Shocks may cause malfunction. When you need to transport the unit, use the original packing materials or alternate adequate packing.
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[Circuitry Access]

 A black circle with a white lightning bolt and a horizontal line through it, indicating no power.	<p>Do not remove covers, panels, casing, or access circuitry with power applied to the unit! Turn power off and disconnect power cord prior to removal. Internal servicing / adjustment of unit should only be performed by qualified personnel.</p>
 A black circle with a white hand and a diagonal slash through it, indicating no touch. Stop	<p>Do not touch any parts / circuitry with a high heat factor. Capacitors can retain enough electric charge to cause mild to serious shock, even after power is disconnected. Capacitors associated with the power supply are especially hazardous. Avoid contact with any capacitors.</p>
 A black triangle with a white flame inside, indicating a fire hazard. Hazard	<p>Unit should not be operated or stored with cover, panels, and / or casing removed. Operating unit with circuitry exposed could result in electric shock / fire hazards or unit malfunction.</p>


[Potential Hazards]

 A black triangle with a white lightning bolt inside, indicating a caution for electrical hazards. Caution	<p>If abnormal smells or noises are noticed coming from the unit, turn power off immediately and disconnect power cord to avoid potentially hazardous conditions. If problems similar to above occur, contact authorized service representative before attempting to again operate unit.</p>
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[Rack Mount Brackets, Ground Terminal, and Rubber Feet]

 A black circle with a white exclamation mark inside, indicating a caution. Caution	<p>To rack mount or ground the unit, or to install rubber feet, do not use screws or materials other than those supplied. Otherwise, it may cause damage to the internal circuits or components of the unit. If you remove the rubber feet attached on the unit, do not reinsert the screws securing the rubber feet.</p>
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[Consumables]

 A black triangle with a white exclamation mark inside, indicating a caution. Caution	<p>The consumables used in unit must be replaced periodically. For further details on which parts are consumables and when they should be replaced, refer to the specifications at the end of the Operation Manual. Since the service life of the consumables varies greatly depending on the environment in which they are used, they should be replaced at an early date. For details on replacing the consumables, contact your dealer.</p>
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Upon Receipt

Unpacking

HVS-30RU, HVS-30FP and their accessories are fully inspected and adjusted prior to shipment. Operation can be performed immediately upon completing all required connections and operational settings.

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.

◆ HVS-30RU box

ITEM	QTY	REMARKS
HVS-30RU	1	Remote control unit for HVS-300HS/RPS, HVS-350HS and HVS-390HS
Control Cable	1	For connecting to HVS-300HS/RPS, HVS-350HS and HVS-390HS, RS-422 straight-through cable, 10m
AC Adapter	1 set	Cable retaining bracket with two screws included
Rack Mount Brackets	1 set	EIA standard type
Operation Manual	1	(This manual)

◆ HVS-30FP box

ITEM	QTY	REMARKS
HVS-30FP	1 set	Compact control panel, attachable to HVS-300HS in place of front panel.
Operation Manual	1	(This manual)

* Refer to "Appendix 1. Installing HVS-30FP" when you have purchased HVS-300HS and HVS-30FP separately.

Refer to "Appendix 1. Installing HVS-30FP" when you purchased HVS-300HS and HVS-30FP separately. Please note that the HVS-30FP cannot be attached to the HVS-300RPS, HVS-350HS or HVS-390HS.
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1. Prior to Starting

1-1. HVS-30FP/HVS-30RU Overview

The HVS-30RU is a simple and compact controller for HVS-300HS/RPS and HVS-350HS and HVS-390HS.

It can be used as a desktop controller by connecting to HVS-300HS/RPS, HVS-350HS and HVS-390HS via the supplied control cable.

The HVS-30FP is a front control panel option attached to the HVS-300HS. It makes the HVS-300HS an all-in-one switcher solution.

Users can perform almost the same menu settings on the HVS-30FP and HVS-30RU as on standard controllers for HVS-300HS/RPS and HVS-350HS by using On Screen Display.

When connecting to HVS-390HS units, M/E1 background signal selections, MIX and WIPE transitions, KEY1 and KEY2 AUTO transitions are possible as factory default settings. Other functions are enabled by changing menu settings on a control panel (HVS-391OU, HVS-392OU/ROU or HVS-30OU).

Features

- Simple, easy to use and compact controllers (1U high).
- Two types of compact controller
 - HVS-30FP: Front control panel type (for HVS-300HS)
 - HVS-30RU: Remote control type (RS-422 connection)
(for HVS-300HS/300RPS/350HS/390HS)
- Easy menu operation with OSD (On Screen Display)

1-2. About This Manual

This manual is intended to help the user easily operate this product and make full use of its functions during operation. Before connecting or operating your unit, read this operation manual thoroughly to ensure you understand the product. After reading, it is important to keep this manual in a safe place and available for future reference.

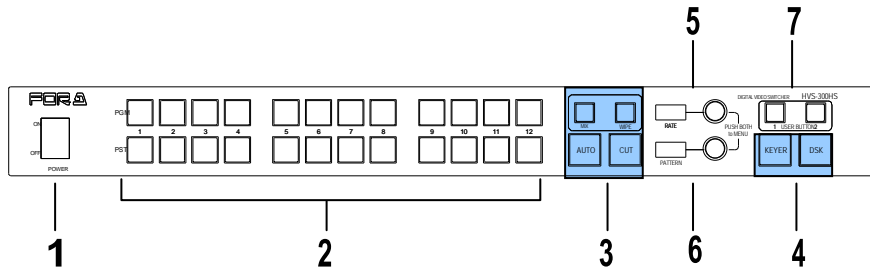
Font Conventions

The following conventions are used throughout this manual:

- Text enclosed by a square (such as MATT) indicates **buttons**.
- Bold text (such as **SELECT**) indicates parameter names and important terms.
- Shaded text (such as ON) indicates menu parameter **values**.
- Text enclosed by square brackets (such as [SETUP-PANEL]) indicates **menus**.

2. Panel Descriptions

2-1. Front Panel (HVS-30FP/HVS-30RU)



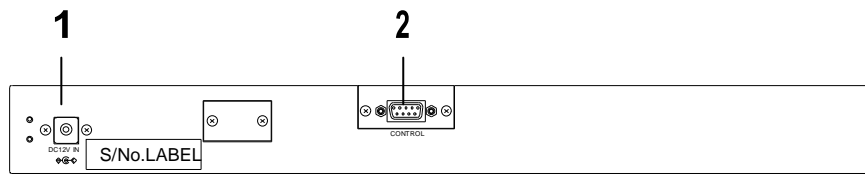
No.	Name	Description	
1	POWER	Switch used to turn power ON / OFF. (HVS-30FP)	
2	PGM/PST	HVS-300HS/300RPS	Used for background signal selection.
		HVS-350HS	Used for background signal selection on the M/E or P/P. (*1)
		HVS-390HS	Used for background signal selection on M/E1 or M/E2. (*2)
3	BKGD transition section	HVS-300HS/300RPS	Used for background CUT, MIX and WIPE transitions.
		HVS-350HS	Used for background CUT, MIX and WIPE transitions when controlling the M/E. Used for background CUT and MIX transitions when controlling the P/P. (*2)
		HVS-390HS	Used for background CUT and MIX transitions when controlling M/E1 or M/E2.
4	KEYER/DSK transition section	HVS-300HS/300RPS	Used for KEYER and DSK transitions. Used for PinP1-2 transitions with user buttons. (See section 5-5-2.)
		HVS-350HS	Used for KEY1-2 transitions when controlling the M/E. Used for DSK1-2 transitions when controlling the P/P. Used for PinP1-2 transitions with user buttons. (See section 6-6-2.)
		HVS-390HS	Used for KEY1-2 transitions when controlling M/E1 or M/E2. Used for KEY3-4 transitions with user buttons. (See section 7-5-2.)
5	F1 menu control button and RATE display (*3)	Used for transition rate display and settings.	
6	F2 menu control button and PATTERN display (*3)	Used for WIPE pattern display and selection.	
7	USER buttons	Function assignable buttons.	

(*1) M/E or P/P control can be selected on the HVS-350U/ROU, HVS-300U or OSD menu.

(*2) M/E1 or M/E2 control can be selected on the HVS-3910U/3920U/ROU or HVS-300U.

(*3) Pressing F1 and F2 together opens the OSD menu on the preview screen. See section 5-2 for details

2-2. HVS-30RU Rear Panel



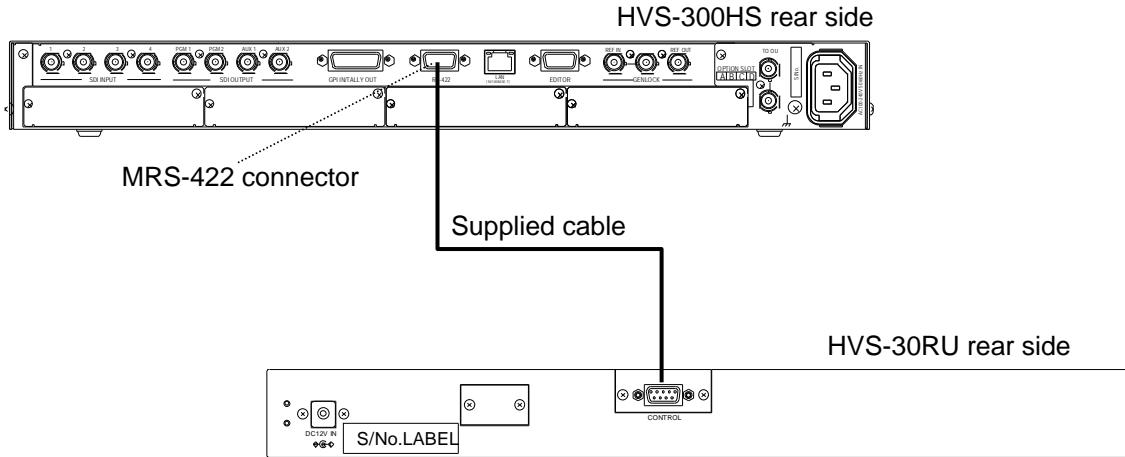
No.	Name	Description
1	DC 12V IN (*1)	Used to supply DC power by connecting to the supplied AC adapter.
2	CONTROL (*1)	Used for connection to HVS-300HS/350HS/390HS with the supplied control cable. RS-422, 9-pin D-sub, female.

(*1) The connector orientation can be turned upside down. (See "Appendix 2".)

3. Connection and Power On

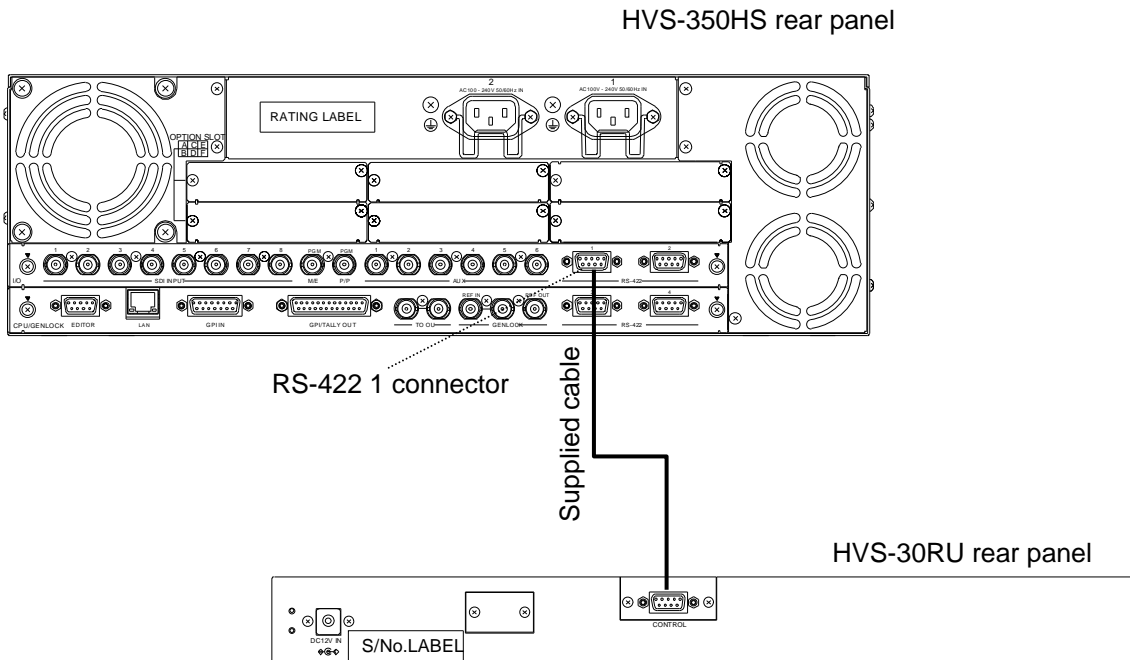
3-1. To Connect the HVS-30RU to HVS-300HS/300RPS

Use the supplied control cable to connect the CONTROL connector on the HVS-30RU rear panel and the RS-422 connector on the HVS-300HS/300RPS rear panel.



3-2. To Connect the HVS-30RU to HVS-350HS

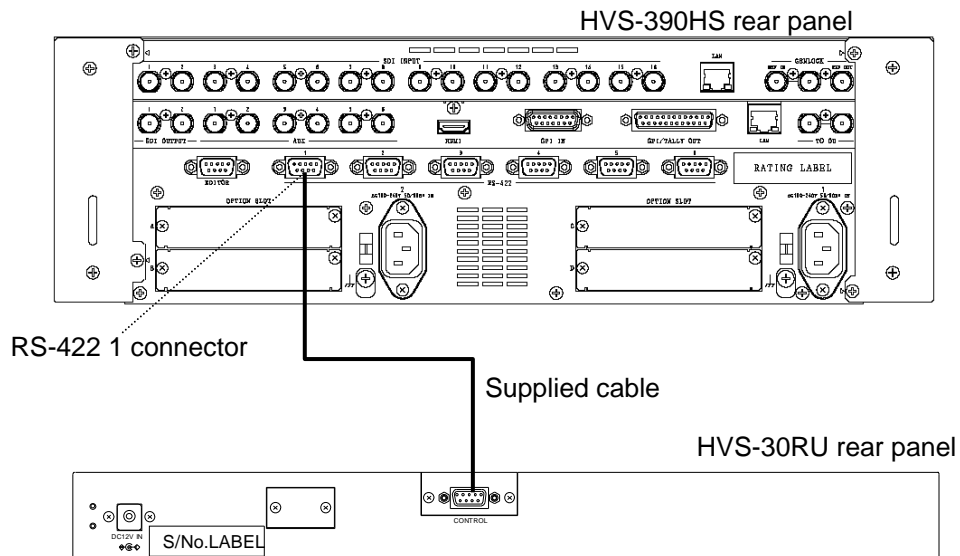
Use the supplied control cable to connect the CONTROL connector on the HVS-30RU rear panel and the RS-422 1 connector on the HVS-350HS rear panel. The RS-422 1 connector has been set to connect to an HVS-30RU as a factory default setting.



Up to two HVS-30RU units can be connected to the HVS-350HS. RS-422 communication settings are needed if using RS-422 ports 2 to 4. See section 4-2 "Changing RS-422 Communication Settings (HVS-350HS)."

3-3. To Connect the HVS-30RU to HVS-390HS

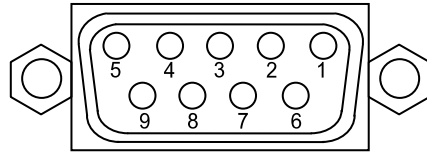
Use the supplied control cable to connect the CONTROL connector on the HVS-30RU rear panel and the RS-422 1 connector on the HVS-390HS rear panel. The RS-422 1 connector has been set to connect to an HVS-30RU as a factory default setting.



Up to two HVS-30RU units can be connected to the HVS-390HS. RS-422 communication settings are needed if using RS-422 ports 2 to 6. See section "Connecting Remote Panels" in the HVS-390HS Operation Manual for details.

3-4. CONTROL (RS-422) Connector

◆ Connector Appearance



9-pin D-sub Connector (female), inch screw type

◆ Pin Assignment

Pin No.	Signal	Description
1	FG	Frame ground
2	T-	Transmit data (-)
3	R+	Receive data (+)
4	SG	Signal ground
5	-	Not assigned
6	SG	Signal ground
7	T+	Transmit data (+)
8	R-	Receive data (-)
9	FG	Frame ground

3-5. Powering HVS-30RU On

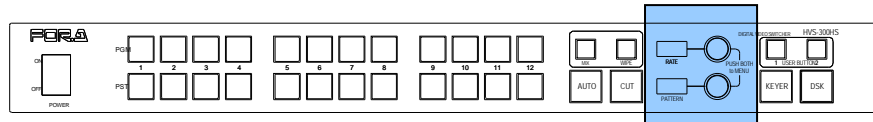
- (1) Before powering your system on, verify that the HVS-30RU is properly connected to your HVS-300HS/300RPS/350HS/390HS.
- (2) Use the supplied AC adapter to supply power to the HVS-30RU.
- (3) Power on HVS-300HS/300RPS/350HS/390HS.

4. Setup

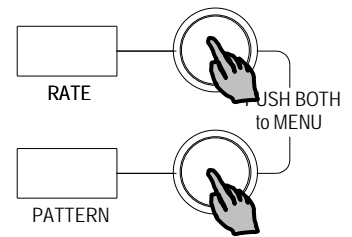
Before operating with the HVS-30RU or HVS-30FP, setup your system and OSD on the front panel.

4-1. Selecting System Format

4-1-1. To Display the [SETUP-SYSTEM-FORMAT] Menu

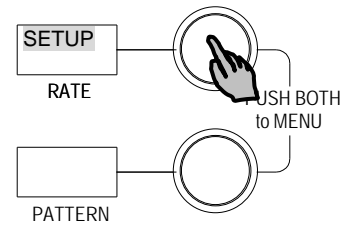


(1) Press both menu control buttons simultaneously to enter the menu display.



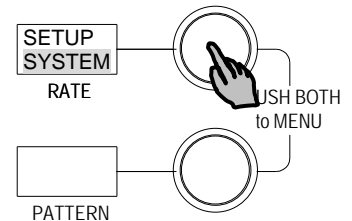
(2) **SETUP** (menu) appears in the upper display. Press either of the two menu control buttons.

The display will change in the following order:
HVS-300HS/300RPS:
 SETUP>>STILL>>BUS MAT>>TRANS>>KEYER>>DSK>>PinP1>>PinP2>> WIPE.
HVS-350HS:
 SETUP>>STILL>>BUS_MAT>>TRANS>>KEYER>>PinP>>DSK>>WIPE.



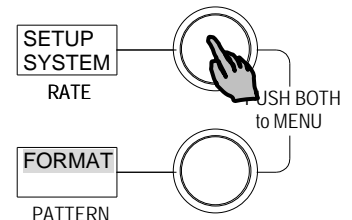
(3) **SYSTEM** (submenu) appears in the second line of the upper display. Press the menu control button.

The display will change in the following order:
HVS-300HS/300RPS:
 SYSTEM>>INPUT>>OUTPUT>>PANEL>>EXT I/F>>STATUS>> RETURN.
HVS-350HS:
 SYSTEM>>INPUT>>OUTPUT>>PANEL>>GPI/TLY>>FUNC>>STATUS>>RETURN.



(4) **FORMAT** (submenu) appears in the bottom display. Press the menu control button.

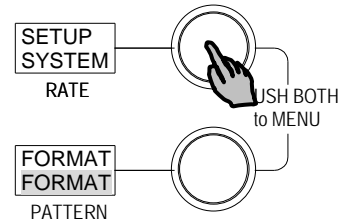
The display will change in the following order:
HVS-300HS/300RPS:
 FORMAT>>REF I/O>>ARCNET>>ETHERNET>>INIT>>REBOOT>>RETURN.
HVS-350HS:
 FORMAT>>REF I/O>>ARCNET>>ETHERNET>>RS-422>>TIME>>INIT>>REBOOT>>RETURN.



4-1-2. To Change Signal Format

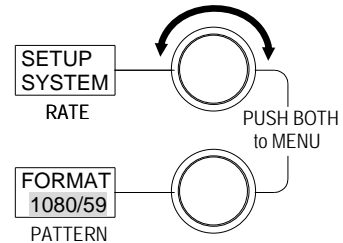
Pressing the menu control button while displaying **FORMAT** shows a parameter in the [SETUP- SYSTEM- FORMAT] menu in the second line of the bottom display. To change the system format, follow the procedure below.

- (1) The **FORMAT** parameter will appear in the second line in the bottom display. Press either of the two menu control buttons to enter the setting.

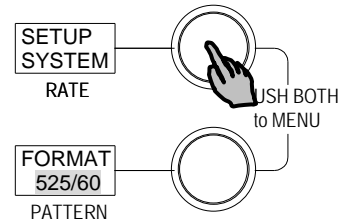


- (2) The second line of the bottom display changes to the current signal format in the system. Turn the menu control button to select the desired signal format.

The display will change in the following order:
1080/59>>1080/60>>...>>525/60>>625/50.



- (3) Press the menu control button to confirm the setting.

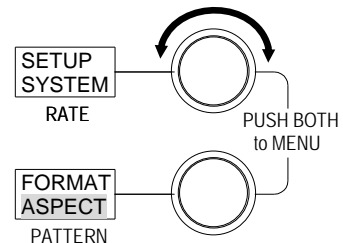


4-1-3. To Change the Aspect Ratio

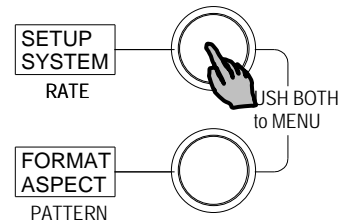
Once the menu control button is pressed and the setting is confirmed (see above), the display is automatically returned to the [SETUP-SYSTEM-FORMAT] menu.

- (1) Turn either of the two menu control buttons to display **ASPECT** in the second line of the bottom display.

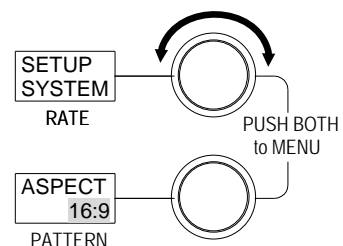
The display will change in the following order:
FORMAT>>ASPECT>>SW TMNG>> RETURN



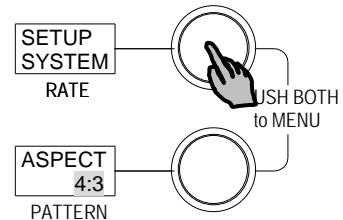
- (2) Press the menu control button to enter the setting.



- (3) The second line of the bottom display changes to the current aspect ratio in the system. Turn the menu control button to select a desired aspect ratio.



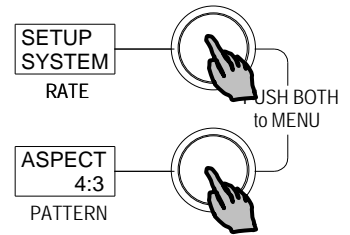
- (4) Press the menu control button to confirm the setting.



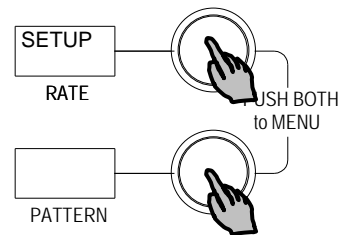
4-1-4. To Reboot the System

Rebooting is required when applying system format changes. To reboot the system, follow the procedure below.

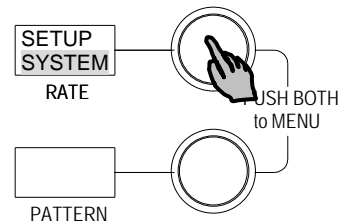
- (1) It is assumed that the menu is displayed on the panel.
Press both menu control buttons simultaneously to quit the menu.



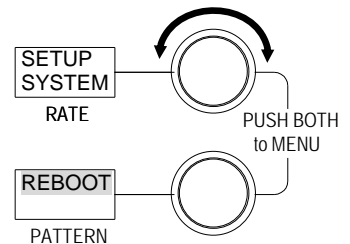
- (2) Press both menu control buttons simultaneously to reenter the menu.



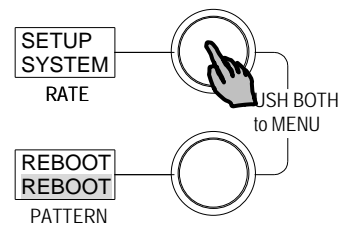
- (3) **SETUP** appears in the upper display.
Press either of the two menu control buttons.



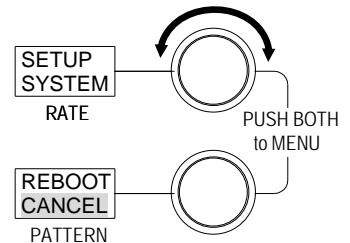
- (4) **SYSTEM** appears in the second line in the upper display.
Press the menu control button.



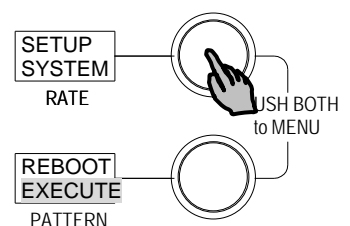
- (5) Turn the menu control button to display **REBOOT** in the bottom display. Press the menu control button.



- (6) Press the menu control button to enter the **REBOOT** option setting.



- (7) **CANCEL** will appear in the second line of the bottom display.
Turn the menu control button to change **CANCEL** to **EXECUTE**.



- (8) Press the menu control button to reboot the system.

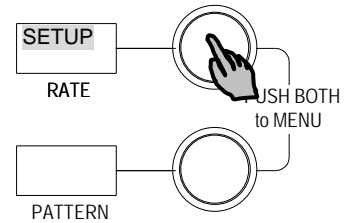
The switcher system will restart with the selected signal format.

4-2. Changing RS-422 Communication Settings (HVS-350HS)

Up to two units of HVS-30RU can be connected to the HVS-350HS. RS-422 communication settings of the HVS-350HS should be changed from the factory default settings if using RS-422 ports 2 to 4. The communication settings can be changed on HVS-350OU/ROU and HVS-30OU, as well as on the HVS-30RU front panel.

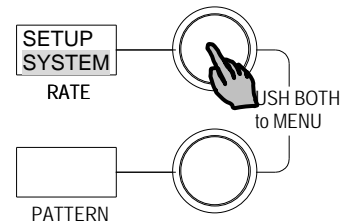
The following example shows how to perform RS-422 settings on the HVS-30RU, to connect the HVS-350HS and HVS-30RU using **Port 2** on the HVS-350HS and to use the HVS-30RU as **RU2**.

(1) Press both menu control buttons simultaneously to enter the menu display.



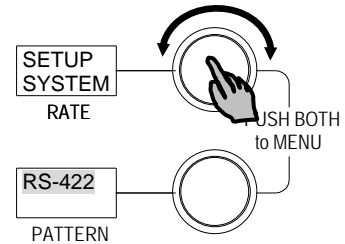
(2) **SETUP** (menu) appears in the upper display. Press either of the two menu control buttons.

(3) **SYSTEM** (submenu) appears in the second line in the upper display. Press the menu control buttons.



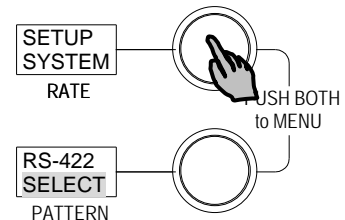
(4) **FORMAT** (submenu) appears in the bottom display. Turn the menu control button to select **RS-422**. Press the menu control button.

The display will change in the following order:
 FORMAT>>REF I/O>>ARCNET>>ETHERNET>>RS-422>>
 TIME>>INIT>>REBOOT>>RETURN.



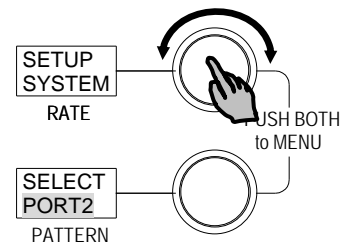
(5) The second line of the bottom display changes to **SELECT**. Press the menu control button.

The display will change in the following order:
 SELECT>>FUNC>>BAUD>>PARITY>>RETURN

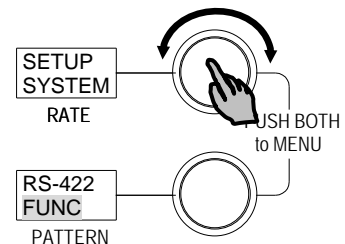


(6) The second line of the bottom display changes to the current port selection. Turn the menu control button to select **PORT2**. Press the menu control button to confirm the selection.

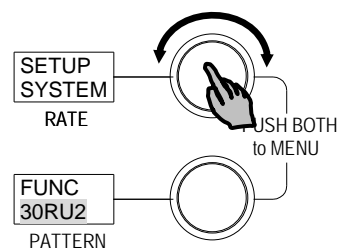
The display will change in the following order:
 EDITR>>PORT1>>...>>PORT4.



(7) The second line of the bottom display changes **SELECT**. Turn the menu control button to select the **FUNC** parameter. Press the menu control button to confirm the selection.



- (8) The second line of the bottom display changes to the **FUNC** setting (connection device).
 Turn the menu control button to select **30RU2**.
 Press the menu control button to confirm the setting.



◆ **Selecting between RU1 and RU2**

In the HVS-350HS menu, two units of HVS-30RU are identified as RU1 and RU2.
 To specify RU1, select **30RU1** under **FUNC**. To specify RU2, select **30RU2** under **FUNC**.
 RU units are normally configured as shown in the table below.

RS-422 menu	SELECT setting	FUNC setting
RU1	PORT1 (default setting)	30RU1(default setting)
RU2	PORT2	30RU2

◆ **Individual and Collective Settings for RU1 and RU2**

Menu settings for RU1 and RU2 are almost the same, however, the following menus permit individual settings:

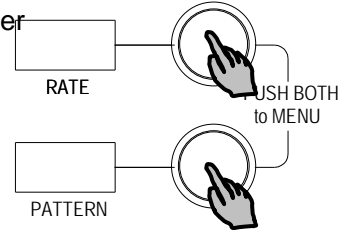
- [SETUP-INPUT-ASSIGN] menu
- [SETUP-PANEL-USER BUTTON] menu
- [TRANS-ADV CTRL-RU1] and [TRANS-ADV CTRL-RU2] menus

4-3. OSD Set Up

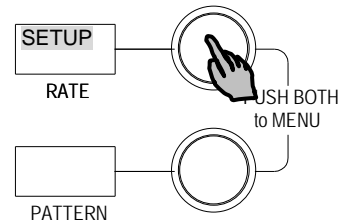
To use OSD (On Screen Display), the preview image must be displayed on an Auxiliary output. The setting procedure in this example uses AUX1 to for displaying the OSD.

4-3-1. To display [SETUP-OUTPUT-AUX OUT] Menus

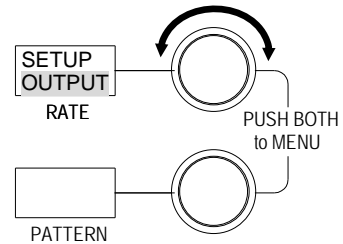
- (1) Press both of the menu control buttons simultaneously to enter the menu display.



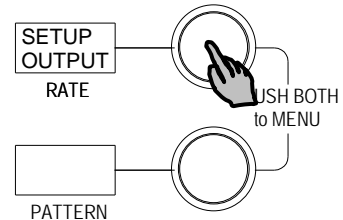
- (2) **SETUP** (menu) appears in the upper display. Press either of two menu control buttons.



- (3) Turn the menu control button to display **OUTPUT** in the second line of the upper display.

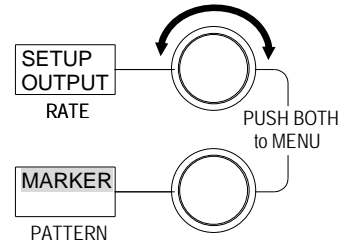


- (4) Press the menu control button.

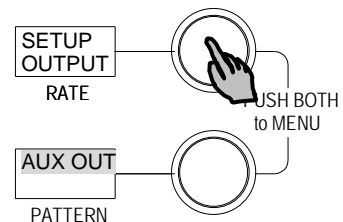


- (5) **MARKER** appears in the bottom display. Turn the menu control button to select **AUX OUT**.

The display will change in the following order:
HVS-300HS/300RPS:
 MARKER>>CLN/PREV>>ANCI>>AUX OUT>>MV>>
 OPTION>>RETURN.
HVS-350HS:
 MARKER>>CLN/PREV>>ANCI>>AUX OUT>>MV1>>
 MV2 >>OPTION>>RETURN.



- (6) Press the menu control button.

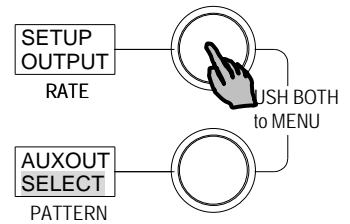


4-3-2. To Set Preview to AUX1

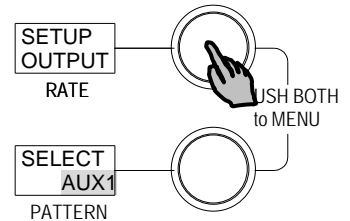
Pressing the menu control button while displaying **AUX OUT** will display a parameter in the [SETUP- OUTPUT-AUX OUT] menu in the second line of the bottom display.

- (1) **SELECT** parameter will appear in the second line in the bottom display. Press a menu control button to enter the setting.

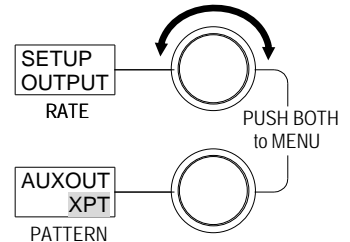
The display will change in the following order:
HVS-300HS/300RPS:
 SELECT>>XPT>>ANCI>>KEY OUT>>
HVS-350HS:
 SELECT>>XPT>>TRS EN>>RATE>>M/E KEY>>
 P/P KEY>> RETURN



- (2) **AUX1** will appear in the second line of the bottom display. Press the menu control button to confirm the selection.

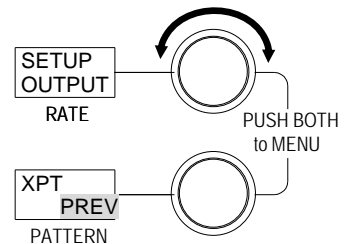


- (3) Turn the menu control button to display the **XPT** parameter. Then press the menu control button to enter the setting.

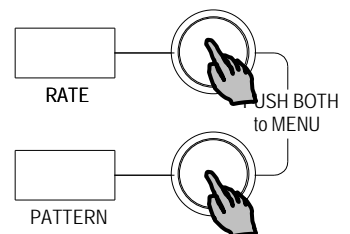


- (4) Turn the menu control button to select **PREV** for **XPT**. Then press the menu control button to confirm the selection.

The OSD menu setting is now available by connecting a monitor to the AUX1 output.



- (5) Press both of the menu control buttons simultaneously to quit the menu display.



4-4. Saving Menu Settings

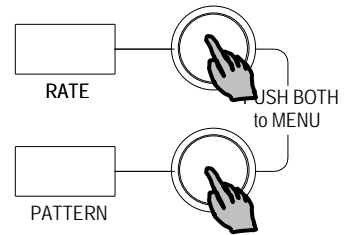
The following menu items are automatically backed up whenever the OSD is closed:

- All settings for SETUP and STILL menus
- The **ADV CTRL** setting in the TRANS menu

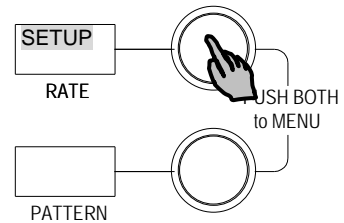
If you want to save other menu settings in addition to these settings, proceed as follows.

4-4-1. To Display [SETUP-SYSTEM-INIT] Menu

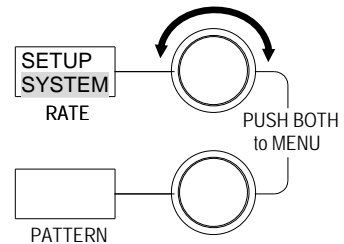
- (1) Press both of the menu control buttons simultaneously to enter the menu display.



- (2) **SETUP** (menu) appears in the upper display. Press a menu control button.

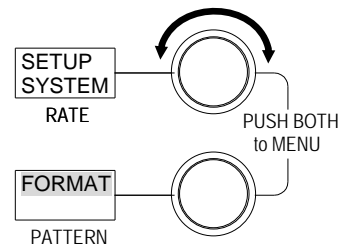


- (3) **SYSTEM** (submenu) appears in the second line in the upper display. Press the menu control button.

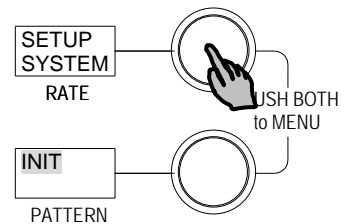


- (4) **FORMAT** (submenu) appears in the second line in the upper display. Turn the menu control button to display **INIT**.

The display will change in the following order:
HVS-300HS/300RPS:
 FORMAT>>REF I/O>>ARCNET>>ETHERNET>>INIT>>
 REBOOT>>RETURN
HVS-350HS:
 FORMAT>>REF I/O>>ARCNET>>
 ETHERNET>>RS-422>>TIME>>INIT>>REBOOT>>



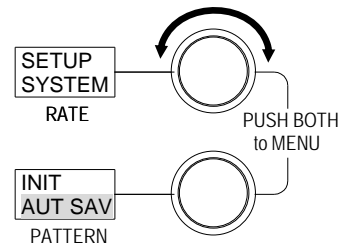
- (5) Press the menu control button.



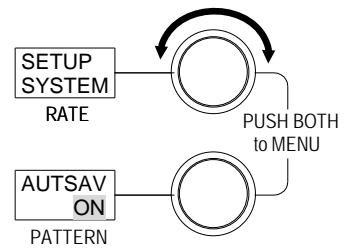
4-4-2. To Turn On AUTO SAVE

If **AUTO SAVE** in the menu is set to **ON**, all menu settings are saved to No.0 in the event memory whenever the OSD menu is closed. **AUTO SAVE** is set to **OFF** as factory default. Pressing the menu control button while displaying **INIT** shows a parameter in the [SETUP-SYSTEM- INIT] menu in the second line of the bottom display.

- (1) Turn the menu control button to display **AUT SAV** (AUTO SAVE) in the second line of the bottom display. Then press the menu control button to enter the setting.



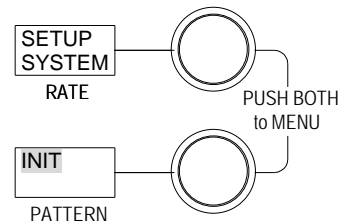
- (2) Turn the menu control button to set **AUTO SAVE** to **ON**. Then press the menu control button.



4-4-3. To Specify the Setting Data Loaded at Startup

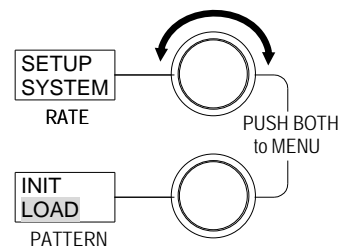
The setting data saved in Event No.0 (factory default settings) is loaded at system startup as the factory default setting. If **AUTO SAVE** is set to **ON** and the backed up menu data is saved to No.0 in the event memory, the backed up data is loaded at startup. You can also change the loaded data as shown in the procedure below.

- (1) It is assumed that **INIT** ([SETUP-SYSTEM-INIT] menu) is displayed in the menu.

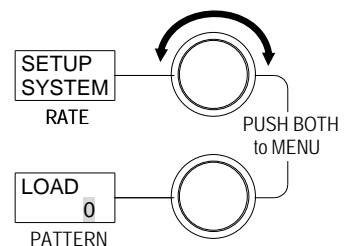


- (2) Turn the menu control button to display **LOAD** (parameter) in the second line of the bottom display. Press the menu control button to enter the setting.

The display will change in the following order:
INIT>>LOAD>>AUTO SAVE>>RETURN.



- (3) Turn the menu control button to select the loaded data. Press the menu control button to confirm the setting.

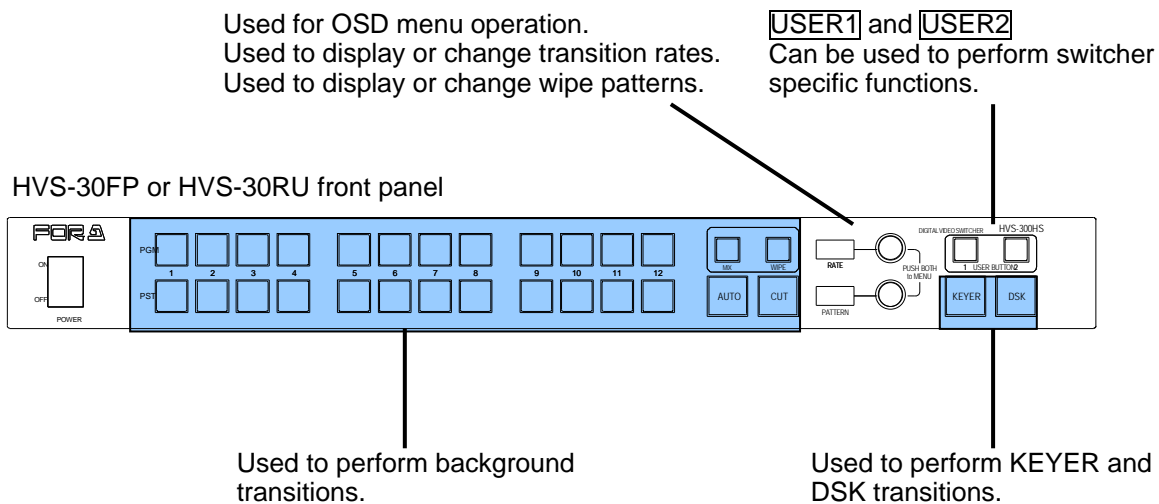


- (4) Press both menu control buttons simultaneously to quit the menu display.

5. Controlling the HVS-300HS/300RPS

The following operations are available on the HVS-30FP or HVS-30RU front.

Available menu operations	Refer to	Refer to the following HVS-300HS manual pages.
Signal selection for the background (PGM/PST bus)	5-1-1	PGM/PST Bus Operation
Background transitions	5-1-1	Background Transitions
Displaying and changing WIPE patterns	5-1-1	Pattern (WIPE) Transitions
Displaying and changing BKGD, KEYER and DSK transition rates.	5-1-1	Transition Rate
KEYER transitions	5-1-2	KEYER Transitions
DSK transitions	5-1-3	DSK Transitions
OSD menu operation	5-2	---
LOCK function	5-3	---
Execution of USER button functions	5-4	USER Button



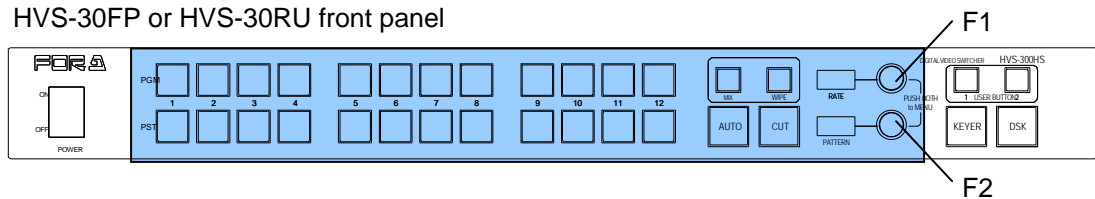
IMPORTANT

If the HVS-30RU or HVS-30FP is used to control an HVS-300HS with HVS-300U, most menu settings are shared between the units. See the HVS-300HS operation manual for menu details.

5-1. Performing Transitions

5-1-1. BKGD Transitions

HVS-30FP or HVS-30RU front panel



◆ CUT transition

- (1) Select the current and next background signals on the PGM/PST.
- (2) Press **CUT** to perform a transition.

◆ MIX transition

- (1) Select the current and next background signals on the PGM/PST.
- (2) Press **MIX**.
- (3) Press **AUTO** to perform a transition.

◆ WIPE transition

- (1) Select the current and next background signals on the PGM/PST.
- (2) Press **WIPE**.
- (3) Turn **F2** to select a desired wipe pattern. (Note that this operation cannot be carried out if the OSD menu is displayed.)
- (4) Press **AUTO** to perform a transition.

◆ Setting Transition Rate

- (1) Press **F1** and **F2** together to close the OSD menu, if the menu is displayed.
- (2) Press **F1** to display the letter B such as "B030." (A "B030" display indicates that the background transition rate has been set to 30 frames.)
- (3) Turn **F1** to set the desired transition rate.

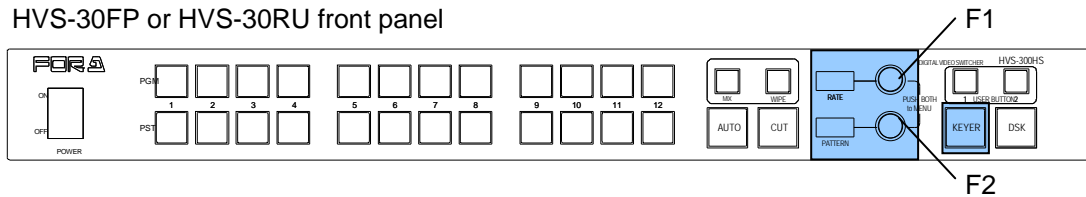
IMPORTANT

Signal assignments for the PGM/PST source bus buttons are set in the [SETUP-INPUT-ASSIGN] menu. See "How to Assign Sources to Bus buttons" in the HVS-300HS operation manual for the signal assignment procedure. If the HVS-30RU and HVS-30FP are connected together to control a HVS-300HS, the same signal assignments are used between them.

5-1-2. KEYER Transitions

Set Up KEYER using the OSD menu. (See section 5-2. "OSD Menu Operation" for how to set transitions with the OSD menu. See the HVS-300HS operation manual for KEYER setup.)

HVS-30FP or HVS-30RU front panel



◆ CUT transition

Press **KEYER** briefly to perform a transition. (Cut transitions are available only when **ADV CTRL** is set to **C/AT** in the [TRANS-KEYER] menu. See "Setting KEYER button" below.)

◆ MIX transition

Press **KEYER** to perform a transition. (Press and hold down **KEYER** for a while if **ADV CTRL** is set to **C/AT** in the [TRANS KEYER] menu.)

◆ Setting KEYER button

The **KEYER** button function can be set in two different ways as shown in the table below. This is set in **ADV CTRL** in the [TRANS-KEYER] menu. See "Advanced Auto Transitions" in the HVS-300HS operation manual for details.

Parameter	Setting	Description
ADV CTL	AUTO (Default)	Always performs AUTO transitions regardless of how long the KEYER button is pressed.
	C/AT	Performs Cut transitions when the KEYER button is briefly pressed. Performs AUTO transitions when the KEYER button is pressed and held down.

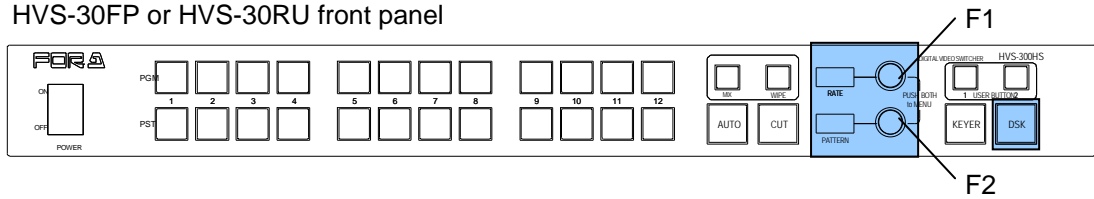
◆ Setting the Transition Rate

- (1) Press **F1** and **F2** together to close the OSD menu, if the OSD menu is displayed.
- (2) Press **F1** to display the letter K such as "K025." (A "K025" display indicates that the KEYER transition rate has been set to 25 frames.)
- (3) Turn **F1** to set the desired transition rate.

5-1-3. DSK transitions

Set Up a DSK key using the OSD menu. (See section 5-2. "OSD Menu Operation" for how to set transitions with the OSD menu. See the HVS-300HS operation manual for DSK setup.)

HVS-30FP or HVS-30RU front panel



◆ CUT transition

Press **DSK** briefly to perform a transition. (Cut transitions are available only when **ADV CTRL** is set to **C/AT** in the [TRANS-DSK] menu. See "Setting DSK button" below.)

◆ MIX transition

Press **DSK** to perform a transition. (Press and hold down **DSK** for a while if **ADV CTRL** is set to **C/AT** in the [TRANS-DSK] menu.)

◆ Setting the DSK button

The **DSK** button function can be set in two different ways as shown in the table below. This is set in **ADV CTRL** in the [TRANS-DSK] menu. See "Advanced Auto Transitions" in the HVS-300HS operation manual for details.

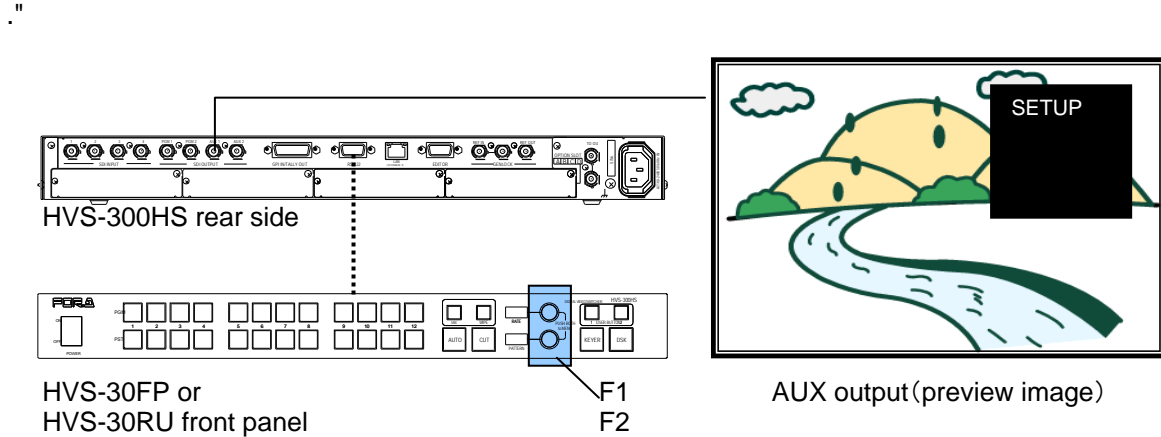
Parameter	Setting	Description
ADV CTL	AUTO (Default)	Always performs AUTO transitions regardless of how long the DSK button is pressed.
	C/AT	Performs Cut transitions when the DSK button is briefly pressed. Performs MIX transitions when the DSK button is pressed and held down.

◆ Setting Transition Rate

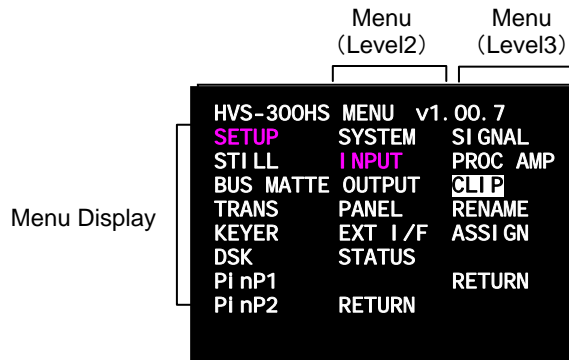
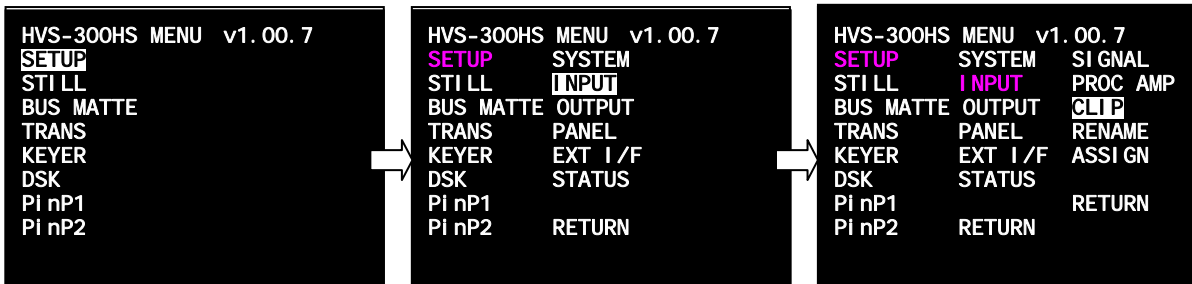
- (1) Press **F1** and **F2** together to close the OSD menu, if the OSD menu is displayed.
- (2) Press **F1** to display the letter D such as "D060." (A "D060" display indicates that the DSK transition rate has been set to 60 frames.)
- (3) Turn **F1** to set the desired transition rate.

5-2. OSD Menu Operation

Menu parameter settings are set in the OSD (On Screen Display) menu on the preview screen. Before entering menu settings using the OSD, set up the OSD following the procedure in section 4-3. "OSD Set Up."

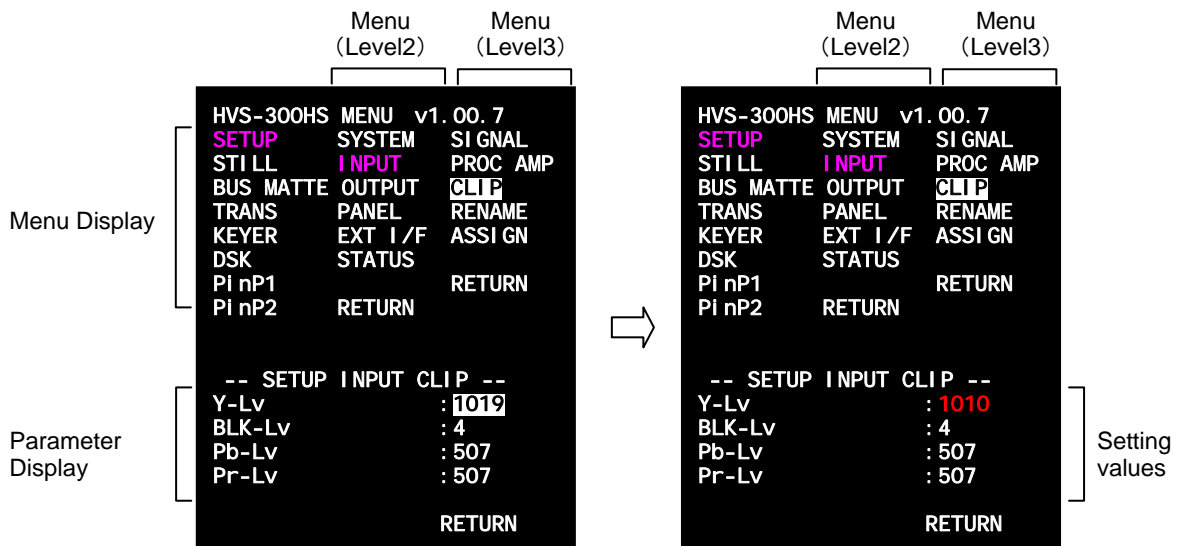


- (1) Press both menu control buttons simultaneously to display the OSD menu on the preview screen. The OSD menu is displayed in the upper-right corner of the screen in HD mode and displayed in full screen in SD mode.
- (2) Turn a menu control button (**F1** or **F2**) to select a menu item. The selected item is displayed in purple.
- (3) Press the menu control button to open the selected menu. If the menu has multiple submenus, select a submenu and press the menu control button in the same way as parameters are displayed on the screen.



To return to higher menu levels, turn the menu control button to select **RETURN** and then press the menu control button.

- (4) Turn the menu control button to select the desired parameter.
- (5) Press the menu control button to enter the setting mode. The selected parameter will be highlighted.
- (6) Turn the menu control button to set the desired value.
- (7) Press the menu control button to confirm the setting.



- (8) To return to the menu selection mode or to higher menu levels, turn and press the menu control button to select **RETURN**. To quit the OSD menu, press both menu control buttons simultaneously.

Menu control button operation (F1 and F2)	Description
Press both menu control buttons simultaneously	Displays/removes the OSD menu.
Turn clockwise	Increases value.
Turn counter-clockwise	Decreases value.
Press a menu control button.	Confirms the selection to move to submenus, display parameters or apply parameter settings.
Press and hold down for at least 1 sec.	Resets a parameter to default value.
Turn while pressing	Quickly increases/decreases value.

Either one of **F1** or **F2** can be used to set menu settings.

See the HVS-300HS operation manual for more details about menus and menu settings.

5-3. Panel Lock Function

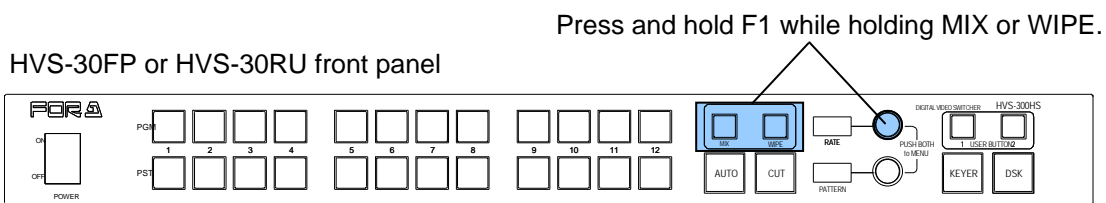
The Panel Lock function allows you to disable front panel buttons to prevent accidental operation. Once the panel is locked, it does not accept any operation except Release Lock.

◆ To Panel Lock

- (1) Press the currently selected transition type button. (Press **MIX** if the MIX transition is selected, or press **WIPE** if the WIPE transition is selected.)
- (2) While holding down the transition type button (1), press and hold down **F1** for a while.
- (3) All button lights on the panel will turn off and **LOCK** appears on the upper display.

◆ To Release Lock

- (1) Press **MIX** or **WIPE**.
- (2) While holding down the button (1), press and hold down **F1** for a while.
- (3) The button lights turn on, the upper and bottom displays return to normal and the panel accepts operations again.

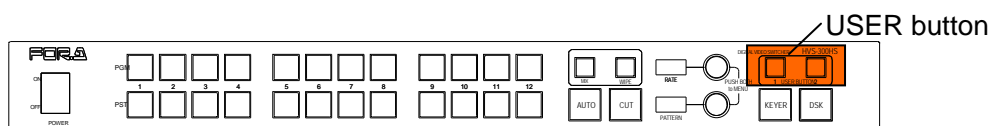


IMPORTANT

Panel lock settings for both HVS-30FP and HVS-30RU are saved in the HVS-300HS/300RPS. Once Panel Lock is set, it is enabled after powering off the HVS-300HS and HVS-30RU, and stays enabled when restarting the HVS-300HS system. Panel Lock stays enabled until it is released manually as described above.

5-4. USER Button Setup

User buttons can be assigned to operational functions that are not assigned to the buttons on the front panel such as **Safety Area marker ON/OFF**, **GPI input ON/OFF** or specific transitions. Follow the procedure below to assign desired function to USER buttons.



(1) Press both menu control buttons simultaneously to display the OSD menu on the preview screen.

(2) Turn a menu control button (**F1** or **F2**) to select **SETUP**.
Press the menu control to display the [SETUP] menu.

(3) Turn the menu control button to select **PANEL**.
Press the menu control button to display the [SETUP-PANEL] menu.

(4) Turn the menu control button to select **USER BTN**.
Press the menu control button to display the [SETUP-PANEL- USER BTN] menu.

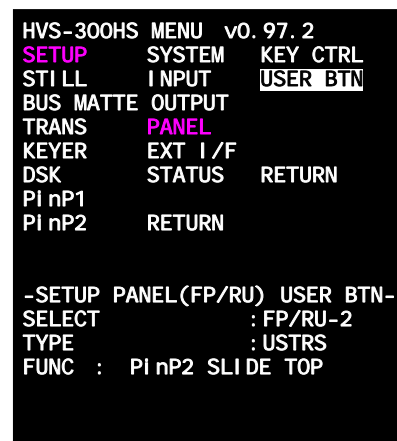
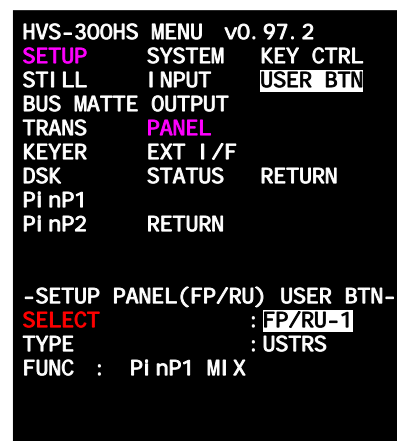
(5) Turn then press the menu control button to select **FP/RU1** or **FP/RU2**.

(6) Turn and press the menu control button to select **TYPE**.
Turn the menu control button to select the function type you want to use. Press the menu control button to confirm the selection.

Turning the menu control button changes the display in the following order: NON>>MARKR>>GPIO>>USTRS>>OTHER.

(7) Turn the menu control button to select a desired function for the USER button. Turning the menu control button displays the function numbers on the front panel display and function names on the OSD menu. (See the following tables.)

(8) Press the menu control button to apply the setting.



Assignable Functions

When MARKR (Marker) is selected for TYPE:			
Front Panel Setting	OSD Setting	Function	Button Indication
0	PGM ENABLE	Pressing the button shows a safety area marker on the output video.	ON: Lit orange, OFF: Unlit
1	AUX1 ENABLE		
2	AUX2 ENABLE		
3	SLOT-C CH1 ENABLE		
4	SLOT-C CH2 ENABLE		
5	SLOT-D CH1 ENABLE		
6	SLOT-D CH2 ENABLE		

When GPIO (GPI In/Out) is selected for TYPE:			
Front Panel Setting	OSD Setting	Function	Button Indication
0	GPI IN ENABLE	Pressing the button enables GPI IN.	ON: Lit orange, OFF: Unlit

1-12	GPI OUTPUT1-12 (PUSH)	The GPI OUTPUT function (1-12) represents the ON/OFF setting for each GPI OUTPUT (1-12) assigned to a GPI/TALLY OUT connector pin set on the menu. The function is enabled whenever the relevant USER button is pressed.	Lit when pushed, unless unlit.
13-24	GPI OUTPUT1-12 (TGLE)	The GPI OUTPUT function (1-12) represents the ON/OFF setting for each GPI OUTPUT (1-12) assigned to a GPI/TALLY OUT connector pin set on the menu. The function is enabled whenever the relevant USER button is pressed.	ON: Lit orange, OFF: Unlit

When USTRS (User Transition) is selected for TYPE:			
Front Panel Setting	OSD Setting	Function	Button Indication
0	KEYER CUT	Performs the user transition for KEYER.	On-Air: Lit orange, Off-Air: Unlit
1	KEYER SCALER		
2	KEYER MIX		
3	KEYER SLIDE LEFT		
4	KEYER SLIDE RIGHT		
5	KEYER SLIDE TOP		
6	KEYER SLIDE BOTTOM		
7	DSK CUT	Performs the user transition for DSK.	On-Air: Lit orange, Off-Air: Unlit
8	DSK SCALER		
9	DSK MIX		
10	DSK SLIDE LEFT		
11	DSK SLIDE RIGHT		
12	DSK SLIDE TOP		
13	DSK SLIDE BOTTOM		
14	PinP1 CUT	Performs the user transition for PinP1.	On-On-Air: Lit orange, Off-Air: Unlit
15	PinP1 SCALER		
16	PinP1 MIX		
17	PinP1 SLIDE LEFT		
18	PinP1 SLIDE RIGHT		
19	PinP1 SLIDE TOP		
20	PinP1 SLIDE BOTTOM		
21	PinP2 CUT	Performs the user transition for PinP2.	On-Air: Lit orange, Off-Air: Unlit
22	PinP2 SCALER		
23	PinP2 MIX		
24	PinP2 SLIDE LEFT		
25	PinP2 SLIDE RIGHT		
26	PinP2 SLIDE TOP		
27	PinP2 SLIDE BOTTOM		

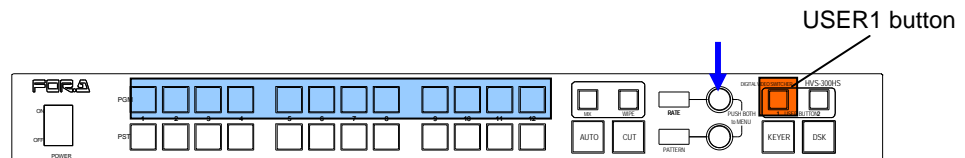
When OTHER is selected for TYPE:			
Front Panel Setting	OSD Setting	Function	Button Indication
0	EDITOR ENABLE	Sets editor control On/Off.	ON: Lit orange OFF: Unlit
1-2	STILL1-2 STORE	Captures Still1 or Still2.	Always lit orange
3	AUX XPT SELECT (See section 5-5-1.)	Enables signal to be selected for AUX1 and AUX2 on PGM/PST.	ON: Lit orange OFF: Unlit
4	KEY/DSK SELECT (See section 5-5-3.)	Enables INSERT signal to be selected for KEYER and DSK on PGM/PST.	
5	PinP1/2 SELECT (See section 5-5-2.)	Enables signal to be selected for PinP1 and PinP2 on PGM/PST.	

5-5. Operational Examples with User Button

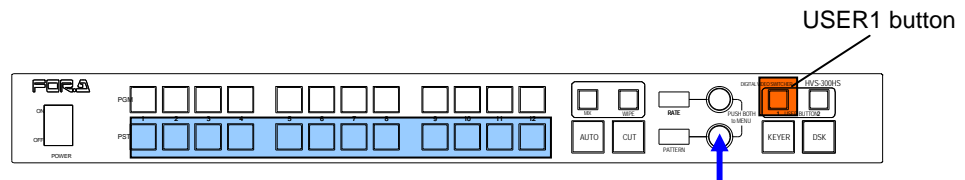
The operational examples below show how to select signals for AUX1/AUX2, PinP1/PinP2 and KEYER/DSK and perform PinP transitions with USER buttons.

5-5-1. Signal Selection for AUX Output

- (1) Assign the AUX XPT SELECT function (TYPE: OTHER) to **USER1**. (Factory default setting.)
- (2) Press **USER1** to enable the function.
- (3) Select a video signal for **AUX1** by turning **F1** or pressing a PGM bus button.



- (4) Select a video signal for **AUX2** by turning **F2** or pressing a PST bus button.

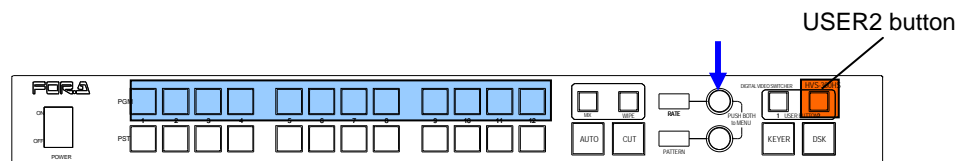


Pressing either one of the menu control buttons changes the PGM bus to the **AUX3** signal selection bus. Pressing the menu control button again returns the PGM bus and **F1** to AUX1 control and the PST bus and **F2** to AUX2 control.

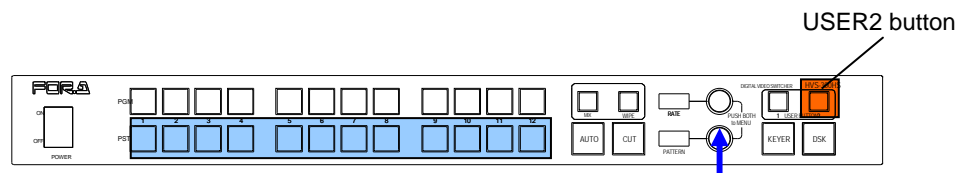
- (5) Press **USER1** to disable the function.

5-5-2. Signal Selection for PinP1 and PinP2

- (1) Assign the **PinP1/2 SELECT** function (TYPE: OTHER) to **USER2**. (Factory default setting.)
- (2) Press **USER2** to enable the function.
- (3) Select a video signal for **PinP1** by turning **F1** or pressing a PGM bus button.



- (4) Select a video signal for **PinP2** by turning **F2** or pressing a PST bus button.



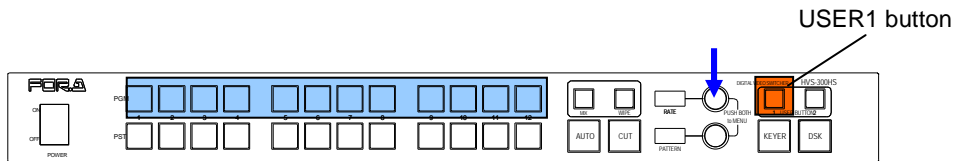
- (5) Press **USER2** to disable the function.

When the USER button to which **PinP1/2 SELECT** is assigned is activated (lit), the **KEYER** and **DSK** buttons below work as follows:

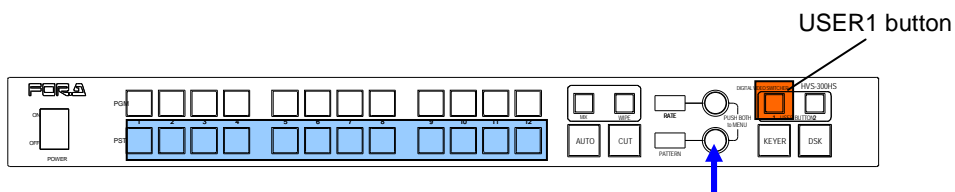
KEYER: PinP1 AUTO transition button
 DSK: PinP2 AUTO transition button

5-5-3. Signal Selection for KEYER and DSK

- (1) Assign the KEY/DSK SELECT function (TYPE: OTHER) to **USER1**. (See section 5-4. "USER Button Setup")
- (2) Press **USER1** to enable the function.
- (3) Select an INSERT signal for KEYER on the PGM bus by turning **F1** or pressing a PGM bus button.



- (4) Select an INSERT signal for DSK on the PST bus by turning **F2** or pressing a PST bus button.



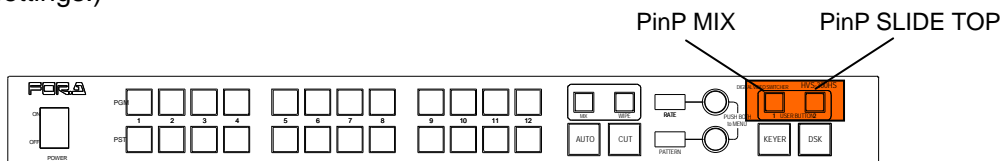
- (5) Press **USER1** to disable the function.

IMPORTANT

Before selecting signals for KEYER and DSK, use the **Key Link** function to create signal pairs (INSERT and SOURCE) beforehand. See "Creating Key Links" in the HVS-300HS operation manual for details.

5-5-4. PinP1 and PinP2 Transitions

- (1) Assign the PinP1 MIX function (TYPE: USTRS) to **USER1**. (See section 5-4. "USER Button Setup")
- (2) Assign the PinP2 SLIDE TOP function (TYPE: USTRS) to **USER2**.
- (3) Press two menu control buttons together to display the OSD menu on screen.
- (4) Open the [PinP1] menu and set up PinP1. (Select a signal, set the position, size and other settings.)
- (5) Open the [PinP2] menu and set up PinP2. (Select a signal, set the position, size and other settings.)

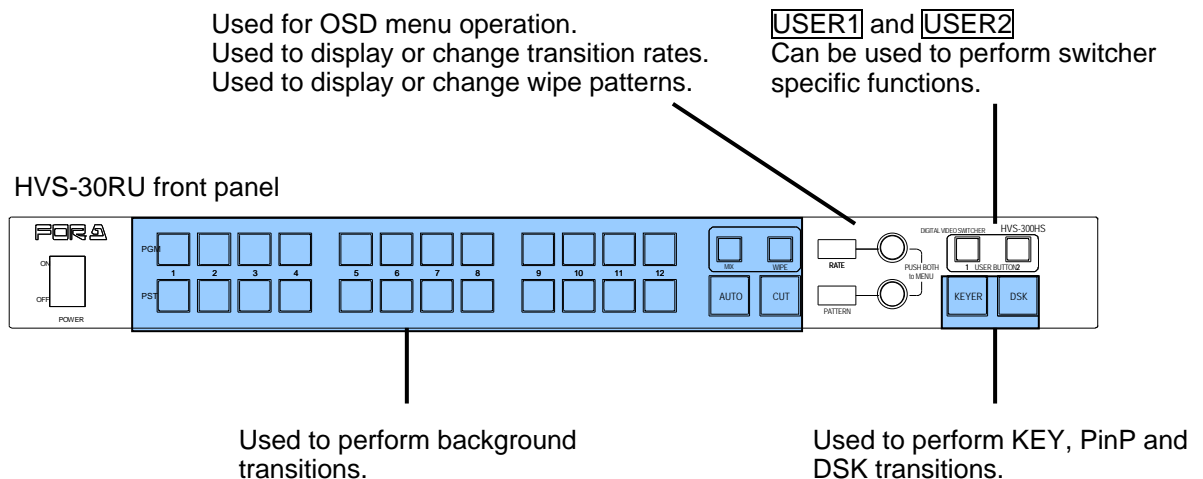


- (6) Press **USER1** to insert PinP1 on the background video (PGM output) by MIX. Press **USER1** again to clear PinP1 from the video in the same way.
- (7) Press **USER2** to insert PinP2 on the background video (PGM output) from the top. Press **USER2** again to clear PinP2 from the video in the same way.

6. Controlling HVS-350HS

The following operation procedures are available on the HVS-30RU front panel.

Available operations	Refer to	Refer to following HVS-350HS manual pages.
Background signal selection for M/E or P/P	6-2-1	PGM/PST Bus Operation
Background transitions	6-2-1	Background Transitions
Checking and changing WIPE patterns	6-2-1	Pattern (WIPE/DVE) Transitions
Checking and changing transition rates for BKGD, KEYER, DSK and PinP.	6-2-1	Transition Rate
KEYER transitions	6-2-2 6-2-4	KEYER Transitions IN/OUT effects for PinP, KEY and DSK
DSK transitions	6-2-3 6-2-4	IN/OUT effects for PinP, KEY and DSK
OSD menu operation	6-3	---
LOCK function	6-4	---
Performing functions using USER buttons	6-6	USER Button



◆ Selecting M/E or P/P

HVS-30RU can select which Mix/Effect buses of HVS-350HS, M/E or P/P, are to be controlled using the PGM/PST. See section 6-1. "Selecting M/E or P/P."

When selecting **M/E**, **KEY1** and **KEY2** can also be controlled from the HVS-30RU. Select background signals on the PGM/PST bus. KEY1 and KEY2 signals can also be selected on the PGM/PST bus, if utilizing the USER button function. (See the next page.) Perform background transitions using the **CUT** or **AUTO** button. (See section 6-2-1. "BKGD Transitions") Perform KEY1 and KEY2 transitions using respectively **KEYER** and **DSK**.

When selecting **P/P**, **DSK1** and **DSK2** can also be controlled from the HVS-30RU. Select background signals on the PGM/PST bus. DSK1 and DSK2 signals can also be selected on the PGM/PST bus, if utilizing the USER button function. (See the next page.) Perform background transitions using the **CUT** or **AUTO** button. (See section 6-2-1. "BKGD Transitions") Perform DSK1 and DSK2 transitions using respectively **KEYER** and **DSK**.

IMPORTANT

If controlling an HVS-350HS with HVS-30RU and HVS-30OU, most menu settings are shared between them. See the HVS-350HS operation manual for menu details.

◆ **Signal Selection and Transitions for AUX, KEY, PinP and DSK**

User buttons allow users to select signals for AUX, KEY, PinP and DSK on the PGM/PST. (See section 6-6 "Selecting Signals for AUX, KEY, PinP and DSK". See 6-5."USER Button Setup" for user button assignments.

In such cases, AUTO transitions can be executed by the **KEYER** and **DSK** buttons. KEY PinP and DSK user transitions such as CUT, MIX and SCALER can also be performed by assigning transition functions to user buttons.

Controlled bus	Signal selection	Transition EXE button	How to enable functions:	Refer to
AUX1, 2	PGM, PST F1, F2	---	Assign AUX XPT SELECT to a user button and press the user button to enable the function. (In this mode, pressing F1 or F2 switches controlling buses each time in the following order: AUX1-2, AUX3-4, AUX5-6 and AUX7-8.)	6-6-1
AUX3, 4		---		
AUX5, 6		---		
AUX7, 8		---		
KEY1, 2	PGM, PST F1, F2	KEYER, DSK	Assign KEYER XPT SELECT to a user button and press the user button to enable the function. KEYER and DSK work as AUTO transition buttons.	6-6-2
PinP1, 2	PGM, PST F1, F2	KEYER, DSK	Assign PinP XPT SELECT to a user button and press the user button to enable the function. KEYER and DSK work as AUTO transition buttons.	6-6-3
DSK1, 2	PGM, PST F1, F2	KEYER, DSK	Assign DSK XPT SELECT to a user button and press the user button to enable the function.	6-6-4
DSK3, 4			KEYER and DSK work as AUTO transition buttons.	
KEY1-2 PinP1-2 DSK1-4	---	USER1 button USER2 button	Assign IN/OUT effects, for example PinP1 Scaler , to user buttons.	6-2-4

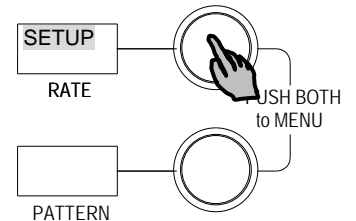
6-1. Selecting M/E or P/P

HVS-350HS units have two M/Es, **M/E** and **P/P**. However, HVS-30RU units have a single M/E. Therefore, each HVS-30RU is needed to specify which Mix/Effect bus of HVS-350HS is to be controlled. The factory default setting is **M/E**. This setting can be changed on HV-350U/ROU and HVS-30OU as well as on the HVS-30RU front panel.

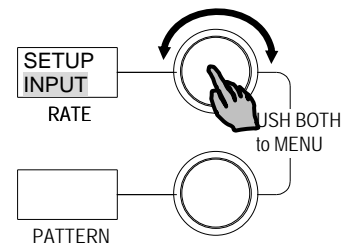
The following setting example shows how to change the control bus to **P/P** on the HVS-30RU front. (See the HVS-30RU settings in "HVS-350HS Operation Manual" for how to change the bus to be controlled from HVS-30RU on an HVS-350U/ROU or HVS-30OU.)

(1) Press both of the menu control buttons simultaneously to enter the menu display.

(2) **SETUP** (menu) appears in the upper display. Press either of the two menu control buttons.

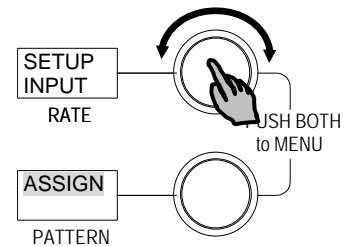


(3) **SYSTEM** (submenu) appears in the second line in the upper display. Turn the menu control button to select **INPUT**. Then press the menu control button.



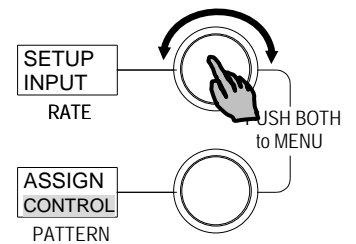
(4) Turn the menu control button to select **ASSIGN**. Then press the menu control button.

The display will change in the following order:
SIGNAL>>PRC AMP>>RENAME>>ASSIGN>> RETURN

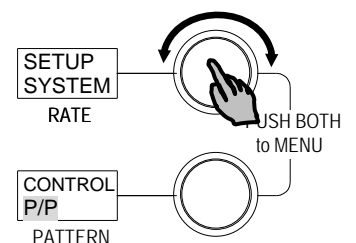


(5) Turn the menu control button to display the **CONTROL** parameter in the second line of the bottom display. Press the menu control button.

The display will change in the following order:
BUTTON>>SIGNAL>>INHIBIT>>CONTROL>>RETURN



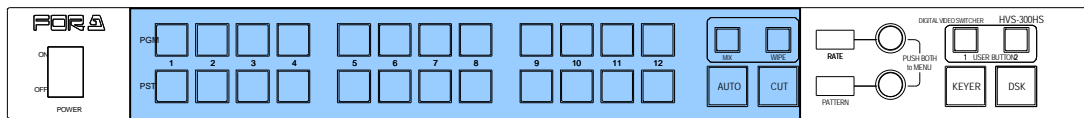
(6) The second line of the bottom display shows the current **CONTROL** setting. Turn the menu control button to select **P/P**. Press the menu control button to confirm the change.



6-2. Performing Transitions

6-2-1. BKGD Transitions

HVS-30RU front panel



◆ CUT transition

- (1) Select the current and next background signals on the PGM/PST.
- (2) Press **CUT** to perform a transition.

◆ MIX transition

- (1) Select the current and next background signals on the PGM/PST.
- (2) Press **MIX**.
- (3) Press **AUTO** to perform a transition.

◆ Pattern transition (M/E only)

- (1) Select the current and next background signals on the PGM/PST.
- (2) Press **WIPE**.
- (3) Turn **F2** to select a desired wipe pattern. (Note that this operation cannot be made if the OSD menu is displayed.)
- (4) Press **AUTO** to perform a transition.

◆ Setting Transition Rate

- (1) Press **F1** and **F2** together to close the OSD menu, if the OSD menu is displayed.
- (2) Press **F1** to display the letter B such as "B 30." (A "B 30" display indicates that the background transition rate has been set to 30 frames.)
- (3) Turn **F1** to set the desired transition rate.

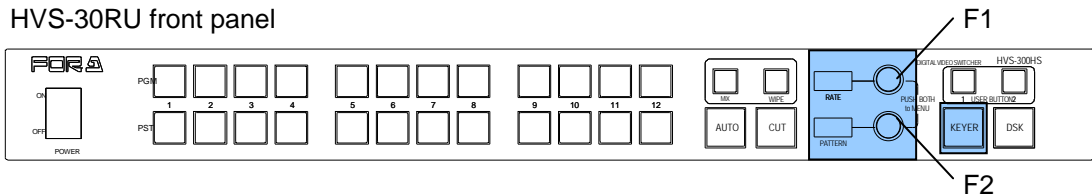
IMPORTANT

The signal assignments for the PGM/PST source bus buttons are set in the [SETUP-INPUT-ASSIGN] menu. See "How to Assign Sources to Bus buttons" in the HVS-350HS operation manual for the signal assignment procedure. If two units of HVS-30RU are connected together to control an HVS-350HS, a signal can be assigned to each bus button separately.

6-2-2. KEY1 and KEY2 Transitions

Set Up KEY1 and KEY2 using the OSD menu. (See section 6-3. "OSD Menu Operation" for details on how to set these transitions with the OSD menu. See the HVS-350HS operation manual for KEY setup.)

The **KEYER** and **DSK** buttons can perform transitions for KEY1 and KEY2 respectively when controlling the M/E on an HVS-30RU.



◆ CUT transition

Press **KEYER** or **DSK** briefly to perform a transition. (The cut transition is available only when **ADV CTRL** is set to **C/AT** in the [TRANS - ADV CTRL] menu. See "Setting KEY and DSK buttons" below.)

◆ MIX transition

Press **KEYER** or **DSK** to perform a transition. (Press and hold down **KEYER** for a while if **ADV CTRL** is set to **C/AT** in the [TRANS - ADV CTRL] menu.)

◆ Setting KEY and DSK buttons

The **KEYER** or **DSK** button function can be set in two different ways as shown in the table below. The function is set under **ADV CTRL** in the [TRANS - ADV CTRL] menu. See "IN/OUT Effects for PinP, KEY and DSK" in the HVS-350HS operation manual for details.

Parameter	Setting	Description
ADV CTL	AUTO (Default)	Always performs AUTO transitions regardless of how long the KEYER button is pressed.
	C/AT	Performs Cut transitions when the KEYER button is briefly pressed. Performs AUTO transitions when the KEYER button is pressed and held down.
	OFF	Disables transitions.

◆ Setting Transition Rate

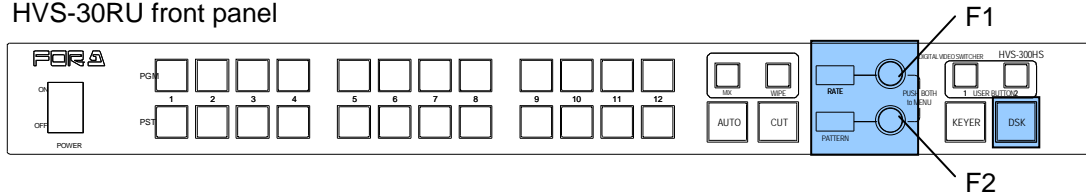
- (1) Press **F1** and **F2** together to close the OSD menu, if the OSD menu is displayed.
- (2) Press **F1** to display the transition rate with the letter K1(KEY1) or K2(KEY2) such as "K1 25." (A "K1 25" display indicates that the KEY1 transition rate has been set to 25 frames.)
- (3) Turn **F1** to set the desired transition rate.

6-2-3. DSK1 and DSK2 transitions

Set Up DSK1 or DSK2 using the OSD menu. (See section 6-3. "OSD Menu Operation" for how to set transitions with the OSD menu. See the HVS-350HS operation manual for DSK setup.)

The **KEYER** and **DSK** buttons can perform transitions for DSK1 and DSK2 respectively when controlling the P/P on an HVS-30RU.

HVS-30RU front panel



◆ CUT transition

Press **KEYER** or **DSK** briefly to perform a transition. (The cut transition is available only when **ADV CTRL** is set to **C/AT** in the [TRANS-ADV CTRL] menu. See "Setting DSK button" below.)

◆ MIX transition

Press **KEYER** or **DSK** to perform a transition. (Press and hold down **DSK** for a while if **ADV CTRL** is set to **C/AT** in the [TRANS-ADV CTRL] menu.)

◆ Setting Transition Rate

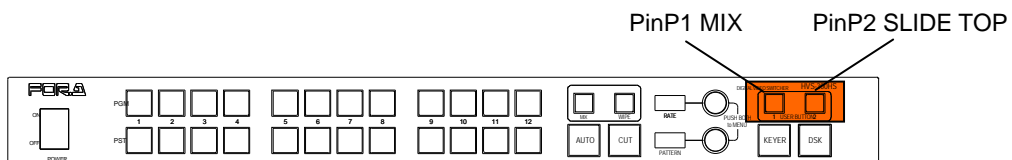
- (1) Press **F1** and **F2** together to close the OSD menu, if the OSD menu is displayed.
- (2) Press **F1** to display the letter D such as "D060." (A "D060" display indicates that the DSK transition rate has been set to 60 frames.)
- (3) Turn **F1** to set the desired transition rate.

See section 6-6-4 for details on DSK3 and DSK4 transitions.

6-2-4. KEY, PinP and DSK Transitions Using User Buttons

Transition functions for KEY1-2, PinP1-2 and DSK1-4 can be assigned to user buttons. The following example shows how to assign PinP transitions to user buttons.

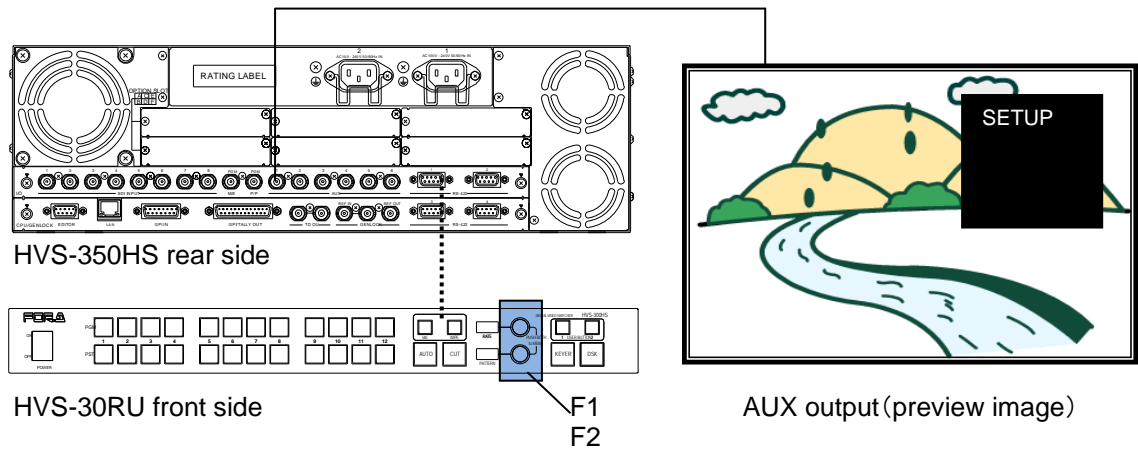
- (1) Assign the **PinP1 MIX** function (TYPE: USTRS) to **USER1**. For details on the assignment procedure, refer to section 6-5 "USER Button Setup."
- (2) Assign **PinP2 SLIDE TOP** to **USER2**.
- (3) Press the two buttons simultaneously to display the OSD menu.
- (4) Open the [PinP-PinP1] menu, select a signal and specify the position and size of PinP1.
- (5) Open the [PinP-PinP2] menu, select a signal and specify the position and size of PinP2.



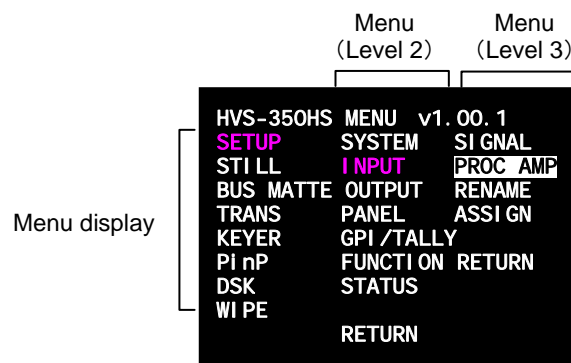
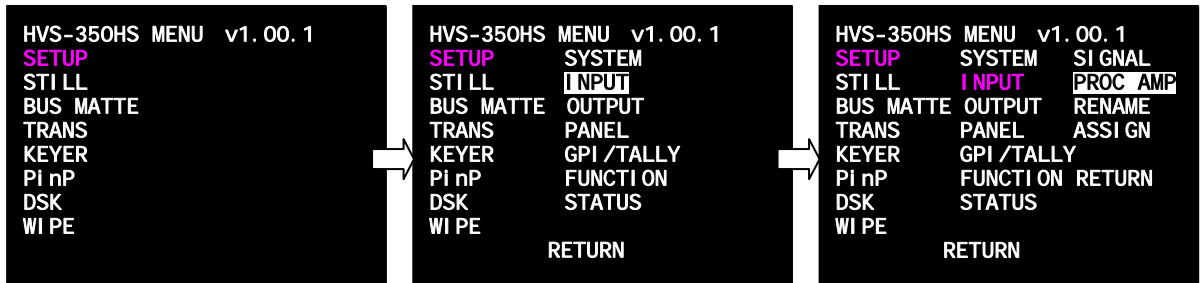
- (6) Press **USER1** to fade in PinP1 on the background (PGM output). Press **USER1** again to fade out PinP1.
- (7) Press **USER2** to slide in PinP2 on the background (PGM output). Press **USER2** again to slide out PinP2.

6-3. OSD Menu Operation

Menu parameter settings are set in the OSD (On Screen Display) menu on the preview screen. Before setting menu settings using the OSD, set up the OSD following the procedure in section 4-3. "OSD Set Up."

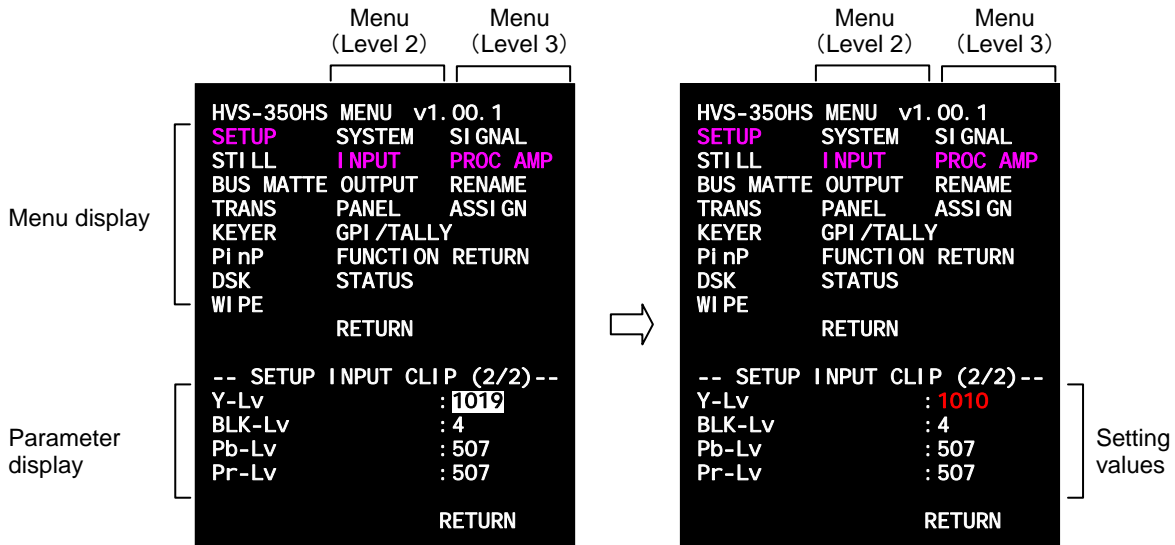


- (1) Press both menu control buttons simultaneously to display the OSD menu on the preview screen. The OSD menu is displayed in the upper-right corner of the screen in HD mode and displayed in full screen in SD mode.
- (2) Turn a menu control button (F1 or F2) to select a menu. The selected item is displayed in purple.
- (3) Press the menu control button to open the selected menu. If the menu has multiple submenus, select a submenu and press the menu control button in the same way to display parameters on screen.



To return to higher menu levels, turn and press the menu control button to select RETURN.

- (4) Turn the menu control button to select the desired parameter. The selected parameter will be highlighted.
- (5) Press the menu control button to enter the setting mode. The highlight will disappear.
- (6) Turn the menu control button to set the desired value.
- (7) Press the menu control button to confirm the setting.



- (8) To quit the OSD menu, press both menu control buttons simultaneously. To return to higher menu levels, turn and press the menu control button to select RETURN.

Menu control button operation (F1 and F2)	Description
Press both menu control buttons simultaneously.	Displays/removes the OSD menu.
Turn clockwise.	Increases value.
Turn counter-clockwise.	Decreases value.
Press a menu control button.	Confirms the selection to move to submenus, display parameters or apply the parameter setting.
Press and hold down at least 1 sec.	Resets a parameter to default value.
Turn while pressing.	Quickly increases/decreases value.

Either one of **F1** or **F2** can be used to set menu settings.

See the HVS-350HS operation manual for more details about menus and menu settings.

6-4. Panel Lock Function

The Panel Lock function allows you to disable buttons on the front panel to prevent accidental operation. Once the panel is locked, it does not accept any operation except Release Lock.

◆ To Panel Lock

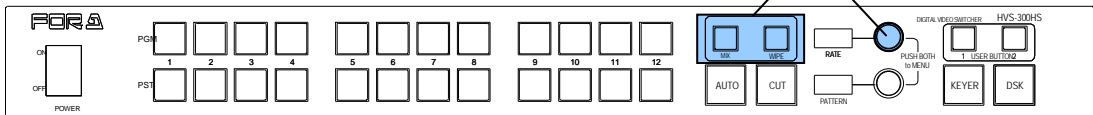
- (1) Press the currently selected transition type button. (Press **MIX** if the MIX transition is selected, or **WIPE** if the WIPE transition is selected.) Either **MIX** or **WIPE** is available when controlling the P/P.
- (2) While holding down the transition type button (1), press and hold down **F1** for a while.
- (3) All button lights on the panel will turn off and **LOCK** appears on the upper display.

◆ To Release Lock

- (1) Press **MIX** or **WIPE**.
- (2) While holding down the button (1), press and hold down **F1** for a while.
- (3) The button lights turn on, the upper and bottom displays return to normal and the panel accepts operations again.

Press and hold F1 while holding MIX or WIPE.

HVS-30RU front side

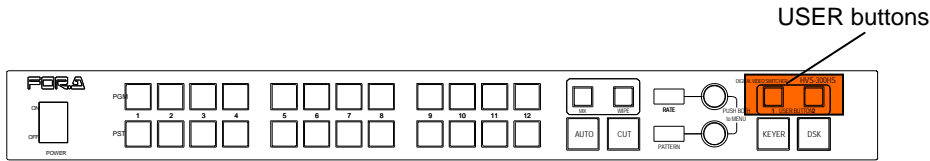


IMPORTANT

The panel lock setting is saved in the HVS-350HS. Once Panel Lock is set, it is enabled after powering off the HVS-350HS and HVS-30RU. It stays enabled when restarting the HVS-350HS system. Panel Lock stays enabled until it is released manually as described above.

6-5. USER Button Setup

User buttons can be assigned to operational functions that are not assigned to buttons on the front panel such as **Safety Area marker ON/OFF**, **GPI input ON/OFF** or specific transitions. Follow the procedure below to assign desired function to USER buttons.



- (1) Press both menu control buttons simultaneously to display the OSD menu on the preview screen.
- (2) Turn a menu control button (**F1** or **F2**) to select **SETUP**. Press the menu control button to display the [SETUP] menu.
- (3) Turn the menu control button to select **PANEL**. Press the menu control button to display the [SETUP-PANEL] menu.
- (4) Turn the menu control button to select **USER BTN**. Press the menu control button to display the [SETUP-PANEL- USER BTN] menu.

```
HVS-350HS MENU v1.00.1
SETUP SYSTEM USER BTN
STILL INPUT
BUS MATTE OUTPUT RETURN
TRANS PANEL
KEYER GPI /TALLY
Pi nP FUNCTI ON
DSK STATUS
WI PE
RETURN
-- SETUP PANEL USER BTN --
SELECT : RU1-1
TYPE : OTHER
FUNC : AUX XPT SELECT
RETURN
```

- (5) Turn and press the menu control button to select **SELECT**.
- (6) Select **RU1-1** or **RU1-2** for RU1 and **RU2-1** or **RU2-2** for RU2. Then press the menu control button.
- (7) Turn and press the menu control button to select **TYPE**. Turn the menu control to select the function type you want to use. Press the menu control button to confirm the selection.

```
HVS-350HS MENU v1.00.1
SETUP SYSTEM USER BTN
STILL INPUT
BUS MATTE OUTPUT RETURN
TRANS PANEL
KEYER GPI /TALLY
Pi nP FUNCTI ON
DSK STATUS
WI PE
RETURN
-SETUP PANEL(FP/RU) USER BTN-
SELECT : RU1-1
TYPE : OTHER
FUNC : AUX XPT SELECT
RETURN
```

The display will change in the following order:
NON>>MARKR>>GPIO>>USTRS>>OTHER.

- (8) Turn the menu control button to select a desired function for the USER button. Turning the menu control button displays the function numbers on the front panel display and function names on the OSD menu. (See the following tables.)
- (9) Press the menu control button to apply the setting.

Assignable Functions

When MARKR (Marker) is selected for TYPE:			
Front Panel Setting	OSD Setting	Function	Button Indication
0-5	AUX1-6 ENABLE	Pressing the button shows a safety area marker on the output video.	ON: Lit orange, OFF: Unlit
6	SLOT-E CH1 ENABLE		
7	SLOT-E CH2 ENABLE		
8	SLOT-F CH1 ENABLE		
9	SLOT-F CH2 ENABLE		

When GPIO (GPI In/Out) is selected for TYPE:			
Front Panel Setting	OSD Setting	Function	Button Indication
0	GPI IN ENABLE	Pressing the button enables GPI IN.	ON: Lit orange, OFF: Unlit
1-16	GPI OUTPUT1-16 (PUSH)	The GPI OUTPUT function (1-16) represents the ON/OFF setting for each GPI OUTPUT (1-16) assigned to a GPI/TALLY OUT connector pin set on the menu. The function is enabled whenever the relevant USER button is pressed.	Lit when pushed, unless unlit.
17-32	GPI OUTPUT1-16 (TGLE)	The GPI OUTPUT function (1-16) represents the ON/OFF setting for each GPI OUTPUT (1-16) assigned to a GPI/TALLY OUT connector pin set on the menu. The function is enabled whenever the relevant USER button is pressed.	ON: Lit orange, OFF: Unlit

When USTRS (User Transition) is selected for TYPE:			
Front Panel Setting	OSD Setting	Function	Button Indication
0-10	KEY1 CUT, SCALER, MIX, SLIDE L/R/T/B, WIPE L/R/T/B	Performs the user transition for KEY1.	On-Air: Lit orange, Off-Air: Unlit
11-21	KEY2 CUT, SCALER, MIX, SLIDE L/R/T/B, WIPE L/R/T/B	Performs the user transition for KEY2.	On-Air: Lit orange, Off-Air: Unlit
22-32	PinP1 CUT, SCALER, MIX, SLIDE L/R/T/B, WIPE L/R/T/B	Performs the user transition for PinP1.	On-Air: Lit orange, Off-Air: Unlit
33-43	PinP2 CUT, SCALER, MIX, SLIDE L/R/T/B, WIPE L/R/T/B	Performs the user transition for PinP2.	On-Air: Lit orange, Off-Air: Unlit
44-54	DSK1 CUT, SCALER, MIX, SLIDE L/R/T/B, WIPE L/R/T/B	Performs the user transition for DSK1.	On-Air: Lit orange, Off-Air: Unlit
55-65	DSK2 CUT, SCALER, MIX, SLIDE L/R/T/B, WIPE L/R/T/B	Performs the user transition for DSK2.	On-Air: Lit orange, Off-Air: Unlit
66-76	DSK3 CUT, SCALER, MIX, SLIDE L/R/T/B, WIPE L/R/T/B	Performs the user transition for DSK3.	On-Air: Lit orange, Off-Air: Unlit
77-87	DSK4 CUT, SCALER, MIX, SLIDE L/R/T/B, WIPE L/R/T/B	Performs the user transition for DSK4.	On-Air: Lit orange, Off-Air: Unlit

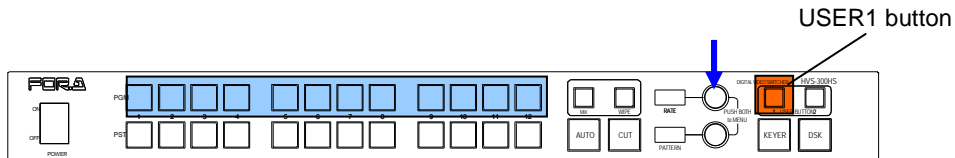
When OTHER is selected for TYPE:			
Front Panel Setting	OSD Setting	Function	Button Indication
0	EDITOR ENABLE	Sets editor control On/Off.	ON: Lit orange OFF: Unlit
1-4	STILL1-4 STORE	Captures Still1-4.	Always lit orange
5	AUX XPT SELECT (See section 6-6-1.)	Enables to select signal for AUX outputs on PGM/PST.	ON: Lit orange OFF: Unlit
6	KEYER XPT SELECT (See section 6-6-3.)	Enables to select INSERT signals for KEY1 and KEY2 on PGM/PST.	
7	PinP XPT SELECT (See section 6-6-2.)	Enables to select signal for PinP1 and PinP2 on PGM/PST.	
8	DSK XPT SELECT (See section 6-6-3.)	Enables to select signal for DSK1-4 on PGM/PST.	
9	CLIP MEM PLAY/PAUSE	Begins/pauses clip playback.	Lit orange
10	CLIP MEM STOP	Stops clip playback and cues to IN-point.	Lit orange
11	CLIP MEM NEXT FRAME	Moves Current Frame forward by one frame in the clip.	Lit orange
12	CLIP MEM PREV FRAME	Moves Current Frame backward by one frame in the clip.	Lit orange

6-6. Selecting Signals for AUX, KEY, PinP and DSK

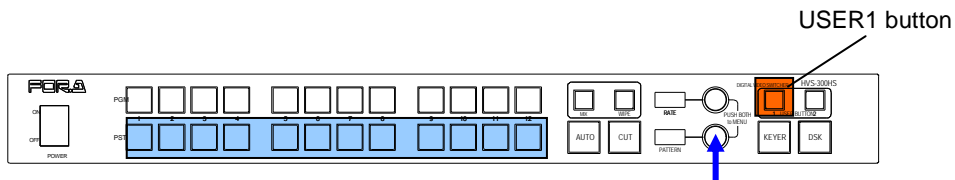
The operational examples below show how to select signals for **AUX**, **KEY**, **PinP** and **DSK** using assignable **USER** buttons and perform transitions with the **KEYER** and **DSK** buttons.

6-6-1. Signal Selection for AUX Outputs

- (1) Assign the **AUX XPT SELECT** function (TYPE: OTHER) to **USER1**. (Factory default setting)
- (2) Press **USER1** to enable the function.
- (3) Select a video signal for **AUX1** by turning **F1** or pressing a PGM bus button.



- (4) Select a video signal for **AUX2** by turning **F2** or pressing a PST bus button.



- (5) Press **F1** or **F2**.
- (6) Turn **F1** (or press a PGM bus button) to select a signal for **AUX3**.
Turn **F2** (or press a PST bus button) to select a signal for **AUX4**.

Each time **F1** or **F2** is pressed, a controlled AUX bus will be switched in the following order:

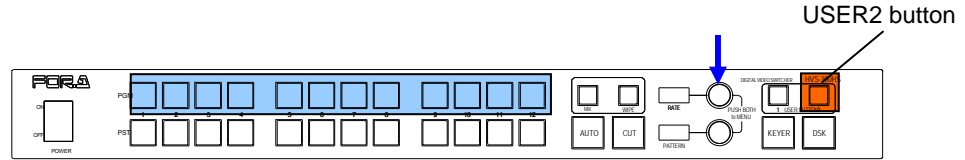
Pressing **F1**: AUX1>>AUX3>>AUX5>>AUX7>>AUX1
 Pressing **F2**: AUX2>>AUX4>>AUX6>>AUX8>>AUX2

Pressing the lit user button disables the function and sets PGM/PST back to the background signal selection.

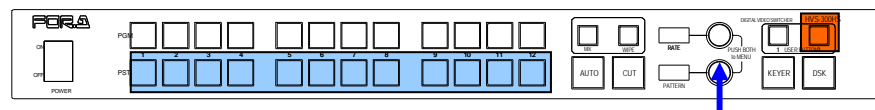
6-6-2. Signal Selection and Transition for PinP1 and PinP2

Selecting Signals for PinP1 and PinP2

- (1) Assign the **PinP XPT SELECT** function (TYPE: OTHER) to **USER2**. (Factory default setting.)
- (2) Press **USER2** to enable the function.
- (3) Select a video signal for **PinP1** by turning **F1** or pressing a PGM bus button.

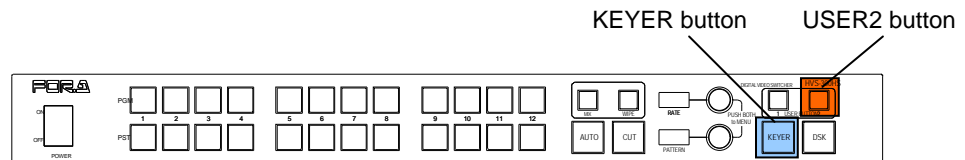


- (4) Select a video signal for **PinP2** by turning **F2** or pressing a PST bus button.



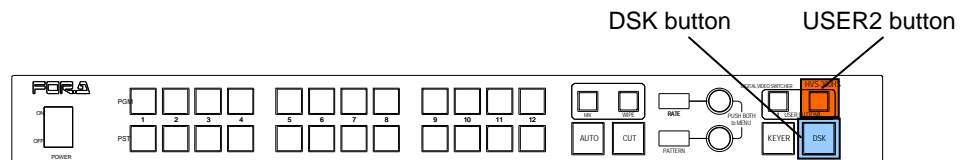
Performing PinP1 transitions

Press **KEYER** to perform the PinP1 AUTO transition.



Performing PinP2 transitions

Press **DSK** to perform the PinP2 AUTO transition.



Once the user button to which **PinP XPT SELECT** is assigned is activated (lit), the **KEYER** and **DSK** buttons below work as follows:

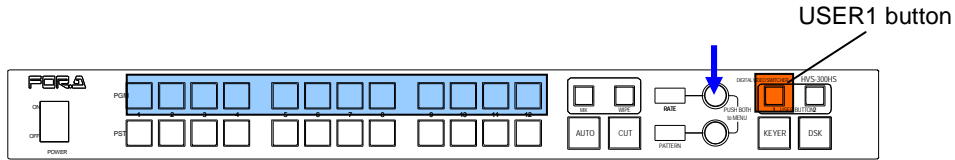
- KEYER: PinP1 AUTO transition button
- DSK: PinP2 AUTO transition button

Pressing the lit user button disables the function and sets PGM/PST back to the background signal selection.

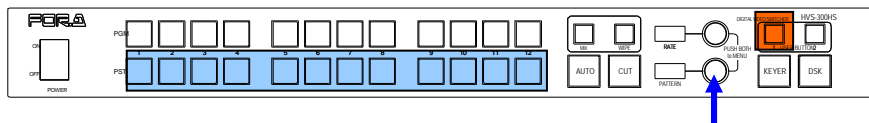
6-6-3. Signal Selection and Transitions for KEY1 and KEY2

Selecting Signals for KEY1 and KEY2

- (1) Assign the **KEYER XPT SELECT** function (TYPE: OTHER) to **USER1**. (See section 6-5. "USER Button Setup")
- (2) Press **USER1** to enable the function.
- (3) Select an INSERT signal for KEY1 on the PGM bus by turning **F1** or pressing a PGM bus button.

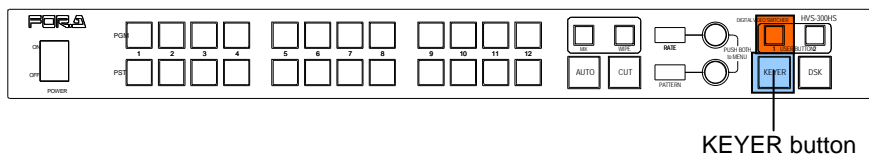


- (4) Select an INSERT signal for KEY2 on the PST bus by turning **F2** or pressing a PST bus button.



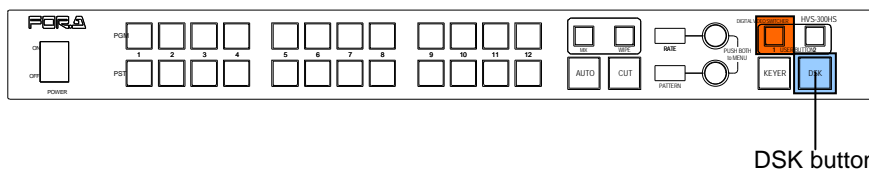
Performing KEY1 transitions

Press **KEYER** to perform the KEY1 AUTO transition.



Performing KEY2 transitions

Press **DSK** to perform the KEY2 AUTO transition.



Once the user button to which **KEYER XPT SELECT** is assigned is activated (lit), the **KEYER** and **DSK** buttons below work as follows:

- KEYER: PinP1 AUTO transition button
- DSK: PinP2 AUTO transition button

IMPORTANT

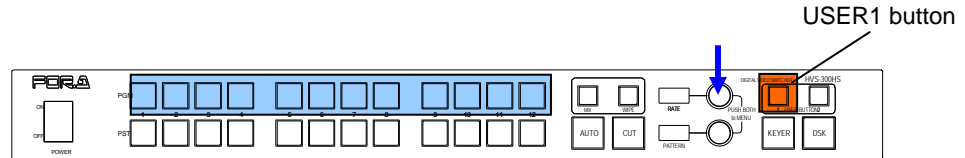
Before selecting signals for KEYER and DSK, use the **Key Link** function to create signal pairs (INSERT and SOURCE) beforehand. See "Creating Key Links" in the HVS-350HS operation manual for details.

Pressing the lit user button disables the function and sets PGM/PST back to the background signal selection.

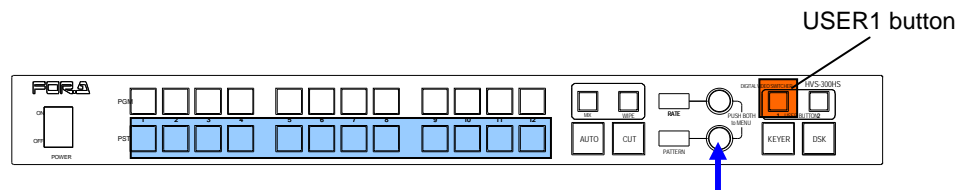
6-6-4. Signal Selection and Transitions for DSK1 to DSK4

Selecting Signals for DSK1 to DSK4

- (1) Assign the **DSK XPT SELECT** function (TYPE: OTHER) to **USER1**. (See section 6-5. "USER Button Setup")
- (2) Press **USER1** to enable the function.
- (3) Select an INSERT signal for DSK1 on the PGM bus by turning **F1** or pressing a PGM bus button.



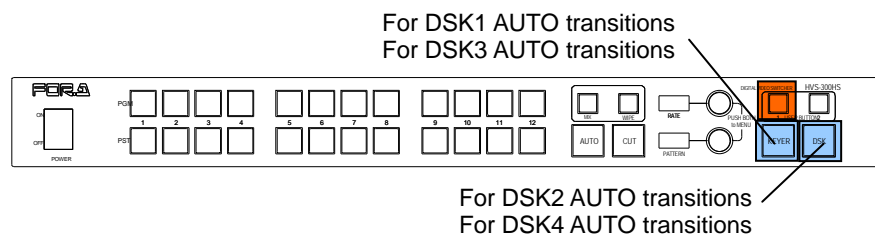
- (4) Select an INSERT signal for DSK2 on the PST bus by turning **F2** or pressing a PST bus button.



- (5) Press **F1** or **F2**.
- (6) Turn **F1** (or press a PGM bus button) to select a signal for **DSK3**.
Turn **F2** (or press a PST bus button) to select a signal for **DSK4**.
- (7) To control DSK1 or DSK2 again, press **F1** or **F2** again.

Performing DSK transitions

Press **KEYER** and **DSK** to perform DSK AUTO transitions.



Once the user button to which **KEYER XPT SELECT** is assigned is activated (lit), the **KEYER** and **DSK** buttons below work as follows:

KEYER: DSK1 AUTO transition button (if DSK1 is enabled)
 DSK3 AUTO transition button (if DSK3 is enabled)

DSK: DSK2 AUTO transition button (if DSK2 is enabled)
 DSK4 AUTO transition button (if DSK4 is enabled)

IMPORTANT

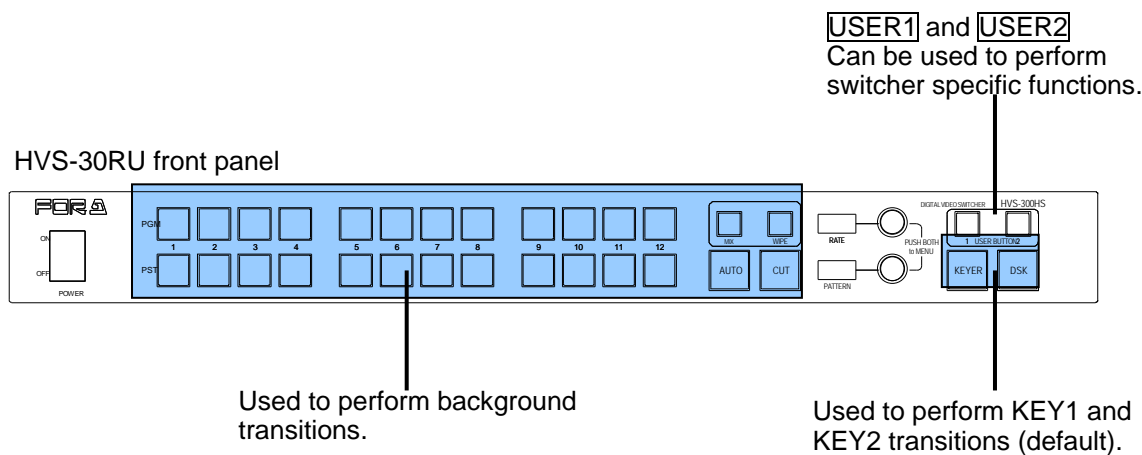
Before selecting signals for KEYER and DSK, use the **Key Link** function to create signal pairs (INSERT and SOURCE) beforehand. See "Creating Key Links" in the HVS-350HS operation manual for details.

Pressing the lit user button disables the function and sets PGM/PST back to the background signal selection.

7. Controlling HVS-390HS

The following operation procedures are available on the HVS-30RU front panel.

Available operations	Refer to	Refer to following HVS-390HS manual pages.
M/E selection	7-1	Setup Setting for HVS-30RU
Background and key transitions	7-2-1	Background transitions
KEY transitions	7-2-2 7-2-3	KEY transitions KEY IN/OUT effects
KEY signal selection	7-5-2	KEY
AUX signal selection	7-5-1	Selecting AUX signals
LOCK function	7-3	---
Performing functions using USER buttons	7-4	USER Button



7-1. Selecting M/E1 or M/E2

HVS-30RU can select which Mix/Effect buses of HVS-390HS, M/E1 or M/E2, are to be controlled using the PGM/PST. Select an M/E to be controlled on a control panel (HVS-391OU/392OU/ROU or HVS-30OU). Refer to section "Setup Setting for HVS-30RU" in each operation manual for details.

When selecting **M/E1** (or **M/E2**), **KEY1** and **KEY2** can also be controlled from the HVS-30RU. Select background signals on the PGM/PST bus. KEY1 and KEY2 signals can also be selected on the PGM/PST bus, if utilizing the USER button function. (See the next page.) Perform background transitions using the **CUT** or **AUTO** button. (See section 7-2-1. "BKGD Transitions") Perform KEY1 and KEY2 transitions using respectively **KEYER** and **DSK**.

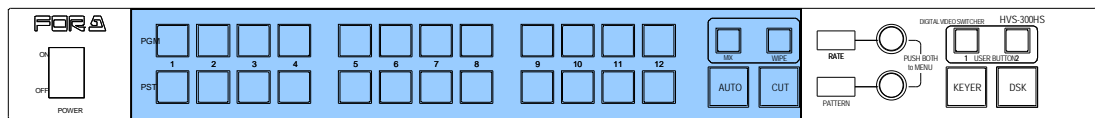
IMPORTANT

If controlling an HVS-390HS with HVS-30OU and a control panel (HVS-391OU/392OU/ROU), most menu settings are shared between them. See the HVS-390HS operation manual for menu details.

7-2. Performing Transitions

7-2-1. BKGD Transitions

HVS-30RU front panel



◆ CUT transition

- (1) Select the current and next background signals on the PGM/PST.
- (2) Press **CUT** to perform a transition.

◆ MIX transition

- (1) Select the current and next background signals on the PGM/PST.
- (2) Press **MIX**.
- (3) Press **AUTO** to perform a transition.

◆ Pattern transition

- (1) Select the current and next background signals on the PGM/PST.
- (2) Press **WIPE**.
- (3) Turn **F2** (a knob on the right side of the PATTERN display) to select a desired wipe pattern.
- (4) Press **AUTO** to perform a transition.

◆ Setting Transition Rate

- (1) Press **F1** (a knob on the right side of the RATE display) to display the letter B such as "B 30." (A "B 30" display indicates that the background transition rate has been set to 30 frames.)
- (2) Turn **F1** to set the desired transition rate.

IMPORTANT

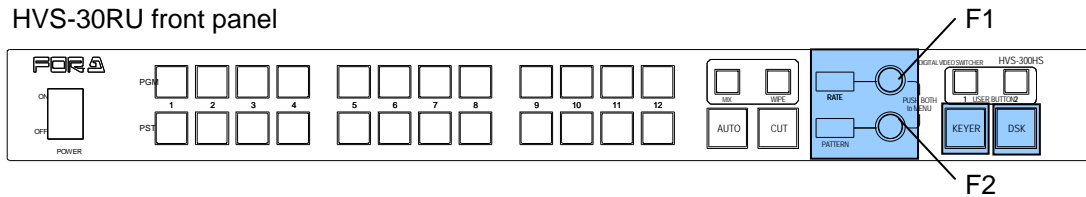
The signal assignments for the PGM/PST source bus buttons are set in the [SETUP-INPUT-ASSIGN] menu. See "How to Assign Sources to Bus buttons" in the HVS-390HS operation manual for details on the signal assignment procedure.

If two units of HVS-30RU are connected together to control an HVS-390HS, a signal can be assigned to each bus button separately.

7-2-2. KEY1 and KEY2 Transitions

The **KEYER** and **DSK** buttons can perform transitions for KEY1 and KEY2 respectively when controlling the M/E1 (or M/E2) on an HVS-30RU.

HVS-30RU front panel



◆ MIX Transition

Press **KEYER** or **DSK** to perform a transition.

◆ Setting Transition Rate

- (1) Press **F1** to display the transition rate with the letter K1(KEY1) or K1(KEY2) such as "K1 25." (A "K1 25" display indicates that the KEY1 transition rate has been set to 25 frames.)
- (2) Turn **F1** to set the desired transition rate.

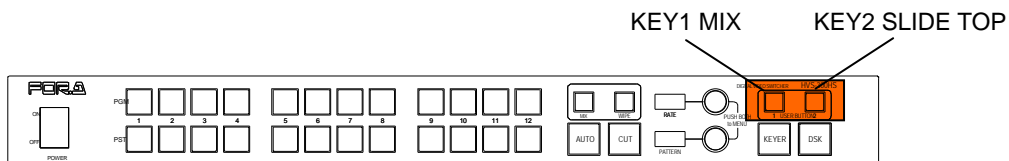
NOTE

Refer to section 7-5-2 "Signal Selections and Transitions for KEY1 to KEY4" for details on how to select signals and perform transitions for keys.

7-2-3. KEY Transitions Using User Buttons

Transition functions for KEY1-4 can be assigned to user buttons. The following example shows how to assign KEY transitions to user buttons.

- (1) Assign the **KEY1 MIX** function (TYPE: USTRS) to **USER1**. (For details on the assignment procedure, refer to section 7-4 "USER Button Setup.")
- (2) Assign **KEY2 SLIDE TOP** to **USER2**.
- (3) Select signals for KEY1 and KEY2, if necessary. (See section 7-5-2 "Signal Selections and Transitions for KEY1 to KEY4.")



- (4) Press **USER1** to fade in KEY1 on the background (PGM output). Press **USER1** again to fade out KEY1.
- (5) Press **USER2** to slide in KEY2 on the background (PGM output). Press **USER2** again to slide out KEY2.

7-3. Panel Lock Function

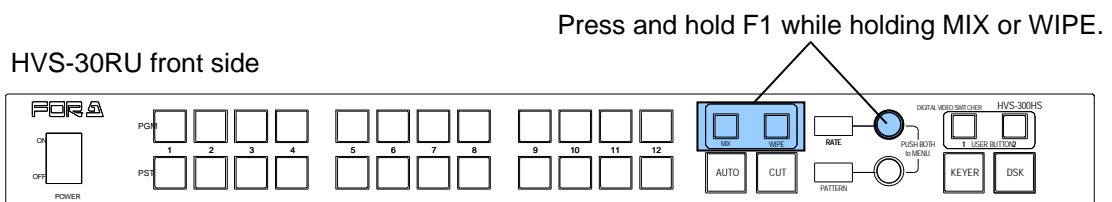
The Panel Lock function allows you to disable buttons on the front panel to prevent accidental operation. Once the panel is locked, it does not accept any operation except Release Lock.

◆ To Panel Lock

- (1) Press the currently selected transition type button. (Press **MIX** if the MIX transition is selected, or **WIPE** if the WIPE transition is selected.) Either **MIX** or **WIPE** is available.
- (2) While holding down the transition type button (1), press and hold down **F1** for a while.
- (3) All button lights on the panel will turn off and **LOCK** appears on the upper display.

◆ To Release Lock

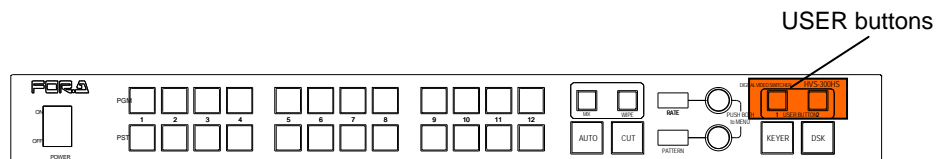
- (1) Press **MIX** or **WIPE**.
- (2) While holding down the button (1), press and hold down **F1** for a while.
- (3) The button lights turn on, the upper and bottom displays return to normal and the panel accepts operations again.



IMPORTANT	
<p>The panel lock setting is saved in the HVS-390HS. Once Panel Lock is set, it is enabled after powering off the HVS-390HS and HVS-30RU. It stays enabled when restarting the HVS-390HS system. Panel Lock stays enabled until it is released manually as described above.</p>	

7-4. USER Button Setup

User buttons can be assigned to operational functions that are not assigned to buttons on the front panel such as **Safety Area marker ON/OFF**, **GPI input ON/OFF** or specific transitions. Follow the procedure below to assign desired function to USER buttons.



User button assignments are performed on a control panel (HVS-391OU/392OU/ROU or HVS-30OU). Refer to section "User Button" in each operation manual for details on how to assign functions to user buttons.

Assignable Functions

Setting		Function	Button Indication
When MARKR (Marker) is selected for TYPE:			
0-5	AUX1-6 ENABLE	Pressing the button shows a safety area marker on the output video.	ON: Lit orange, OFF: Unlit
6	SLOT-C CH1 ENABLE		
7	SLOT-C CH2 ENABLE		
8	SLOT-D CH1 ENABLE		
9	SLOT-D CH2 ENABLE		

When GPIO (GPI In/Out) is selected for TYPE:			
Setting		Function	Button Indication
0	GPI IN ENABLE	Pressing the button enables GPI IN.	ON: Lit orange, OFF: Unlit
1-16	GPI OUTPUT1-16 (PUSH)	The GPI OUTPUT function (1-16) represents the ON/OFF setting for each GPI OUTPUT (1-16) assigned to a GPI/TALLY OUT connector pin set on the menu. The function is enabled whenever the relevant USER button is pressed.	Lit when pushed, unless unlit.
17-32	GPI OUTPUT1-16 (TGLE)	The GPI OUTPUT function (1-16) represents the ON/OFF setting for each GPI OUTPUT (1-16) assigned to a GPI/TALLY OUT connector pin set on the menu. The function is enabled whenever the relevant USER button is pressed.	ON: Lit orange, OFF: Unlit

When USTRS (User Transition) is selected for TYPE:			
Setting		Function	Button Indication
0-9	KEY1 SCALER, MIX, SLIDE L/R/T/B, WIPE L/R/T/B	Performs the user transition for KEY1.	On-Air: Lit orange, Off-Air: Unlit
10-19	KEY2 SCALER, MIX, SLIDE L/R/T/B, WIPE L/R/T/B	Performs the user transition for KEY2.	
20-29	KEY3 SCALER, MIX, SLIDE L/R/T/B, WIPE L/R/T/B	Performs the user transition for KEY3.	
30-39	KEY4 SCALER, MIX, SLIDE L/R/T/B, WIPE L/R/T/B	Performs the user transition for KEY4.	

When STILL is selected for TYPE:			
Setting		Function	Button Indication
0-3	STILL1-4 STORE	Performs still captures.	Always lit orange
4	CLIP1 PLAY/PAUSE	CLIP 1 control	
5	CLIP1 STOP		
6	CLIP1 REC		
7	CLIP2 PLAY/PAUSE	CLIP 2 control	
8	CLIP2 STOP		
9	CLIP2 REC		
10	CLIP3 PLAY/PAUSE	CLIP 3 control	
11	CLIP3 STOP		
12	CLIP3 REC		
13	CLIP4 PLAY/PAUSE	CLIP 4 control	
14	CLIP4 STOP		
15	CLIP4 REC		

When OTHER is selected for TYPE:			
Setting		Function	Button Indication
0	EDITOR ENABLE	Sets editor control On/Off.	ON: Lit orange OFF: Unlit
1	AUX XPT SELECT (See section 7-5-1.)	Enables to select signals for AUX outputs on PGM/PST.	
2	KEYER XPT SELECT (See section 7-5-2.)	Enables to select INSERT signals for KEY1 to KEY4 on PGM/PST.	

7-5. AUX and KEY Bus Operation

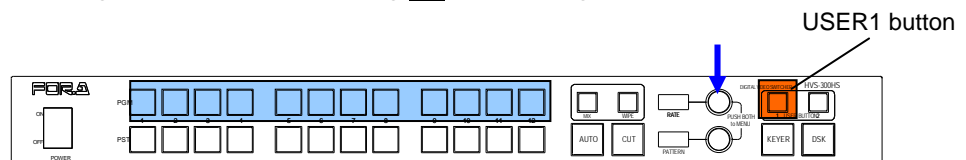
User buttons allow users to select bus signals for AUX1 to AUX8 and KEY1 to KEY4 on the PGM/PST. In such cases, KEY AUTO transitions can be executed by the **KEYER** and **DSK** buttons.

In addition, KEY transitions such as CUT, MIX and SCALER can also be performed by assigning key transition functions to user buttons.

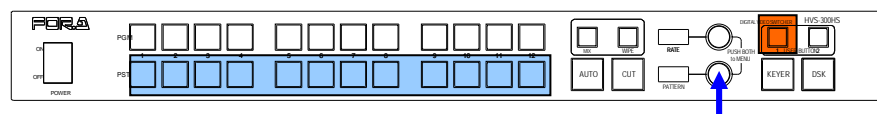
Controlled bus	Signal selection	Transition EXE button	How to enable functions:
AUX1, 2	PGM, PST F1, F2	---	Assign AUX XPT SELECT to a user button and press the user button to enable the function. (In this mode, pressing F1 or F2 switches controlling buses each time in the following order: AUX1-2, AUX3-4, AUX5-6 and AUX7-8.)
AUX3, 4		---	
AUX5, 6		---	
AUX7, 8		---	
ME1KEY1,2,3,4	PGM, PST F1, F2	KEYER, DSK	Assign KEYER XPT SELECT to a user button and press the user button to enable the function.
ME2KEY1,2,3,4			KEYER and DSK work as AUTO transition buttons. (In this mode, each time pressing F1 or F2 switches controlling buses between KEY1-2 and KEY3-4.)
ME1KEY1,2,3,4 ME2KEY1,2,3,4	---	USER1 button USER2 button	Assign IN/OUT effects, such as KEY1 Scaler , to user buttons.

7-5-1. Signal Selection for AUX Outputs

- Assign the **AUX XPT SELECT** function (TYPE: OTHER) to **USER1** (default setting).
- Press **USER1** to enable the function.
- Select a video signal for **AUX1** by turning **F1** or pressing a PGM bus button.



- Select a video signal for **AUX2** by turning **F2** or pressing a PST bus button.



- Press **F1** or **F2** to enable AUX3 and AUX4 control.
- Turn **F1** (or press a PGM bus button) to select a signal for **AUX3**.
Turn **F2** (or press a PST bus button) to select a signal for **AUX4**.
- In the same way, press **F1** or **F2** to control AUX5/6 or AUX7/8.

Each time **F1** or **F2** is pressed, a controlled AUX bus will be switched in the following order:

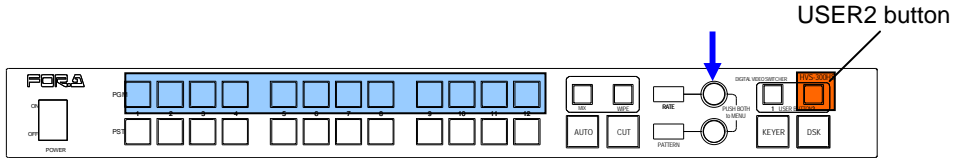
Pressing **F1**: AUX1>>AUX3>>AUX5>>AUX7>>AUX1
Pressing **F2**: AUX2>>AUX4>>AUX6>>AUX8>>AUX2

Pressing the lit user button disables the function and sets PGM/PST back to the background signal selection.

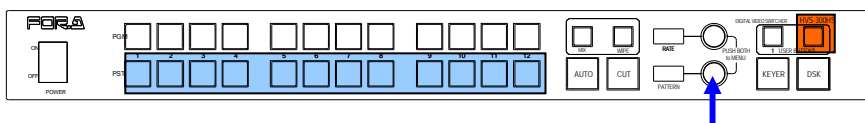
7-5-2. Signal Selection and Transitions for KEY1 to KEY4

Signal Selection and Transitions for KEY1 and KEY2

- (1) Assign the **KEYER XPT SELECT** function (TYPE: OTHER) to **USER2**. (See section 7-4. "USER Button Setup.")
- (2) Press **USER2** to enable the function.
- (3) Select a signal for KEY1 INSERT on the PGM bus by turning **F1** or pressing a PGM bus button.



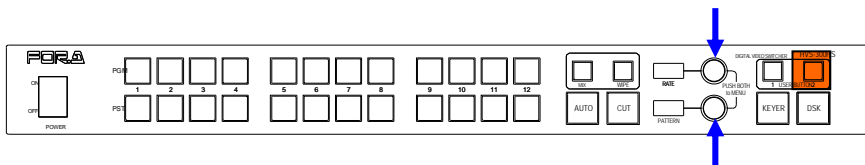
- (4) Select a signal for KEY2 INSERT on the PST bus by turning **F2** or pressing a PST bus button.



- (5) Perform KEY1 AUTO transitions by pressing **KEYER**.
Perform KEY2 AUTO transitions by pressing **DSK**.
(See section 7-2-2. "KEY1 and KEY2 Transitions.")

Signal Selection and Transitions for KEY3 and KEY4

- (6) Press **F1** or **F2** to enable KEY3 and KEY4 control. (**KEYER XPT SELECT** must be enabled.)



- (7) Turn **F1** (or press a PGM bus button) to select the **KEY3** INSERT signal.
Turn **F2** (or press a PST bus button) to select the **KEY4** INSERT signal.
- (8) Perform KEY3 AUTO transitions by pressing **KEYER**.
Perform KEY4 AUTO transitions by pressing **DSK**.

IMPORTANT

Before selecting signals for KEY1-4, use the **Key Link** function to create signal pairs (INSERT and SOURCE) beforehand. See "Key Link" in the HVS-390HS operation manual for details.

Pressing the lit user button disables the function and sets PGM/PST back to the background signal selection.

8. Specifications and Dimensions

8-1. HVS-30RU Specifications

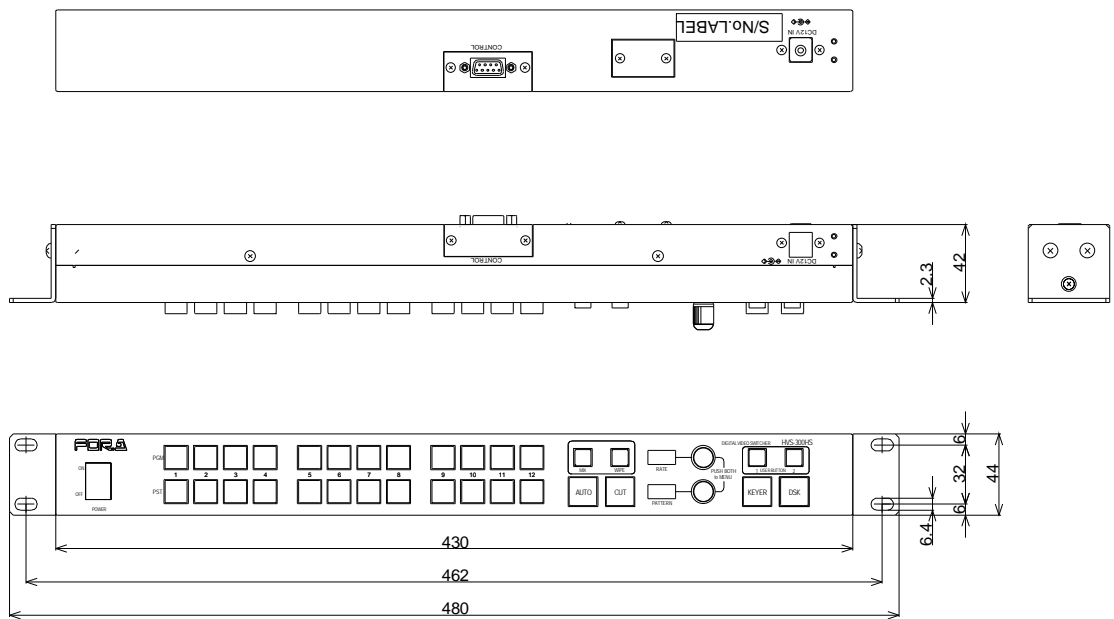
Interface

Control:	9-pin D-sub connector (female), 1 port
Temperature	0°C - 40°C
Humidity	30% - 90% (no condensation)
Power	12VDC \pm 10% (supplied with the accessory AC adapter)
Weight	Approx.1kg
Dimensions	430 (W) x 44 (H) x 42 (D) mm
Consumables	None

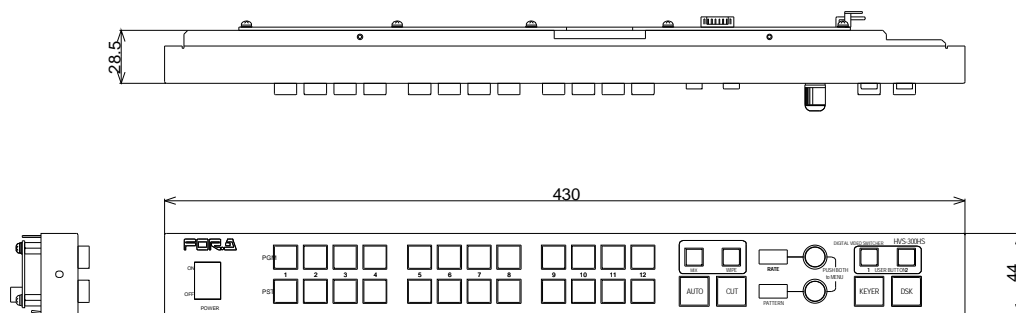
8-2. External Dimensions

(All dimensions in mm.)

8-2-1. HVS-30RU



8-2-2. HVS-30FP



Appendix 1. Installing HVS-30FP

The HVS-30FP is a compact control panel that is attached to the front of the HVS-300HS. Check to ensure no damage has occurred during shipment. If damage has occurred, or items are missing, inform your supplier immediately.

◆ HVS-30FP box


ITEM	QTY	REMARKS
HVS-30FP	1	Front panel
Screws	2	For securing the front panel.
Wiring harness	1	For connecting to the HVS-300HS
Cable tie	4	For fastening the wiring harness (spares included)
Cable tie base	3	For securing cable ties (spares included)
Installation guide	1	(This guide)

◆ Required Tools

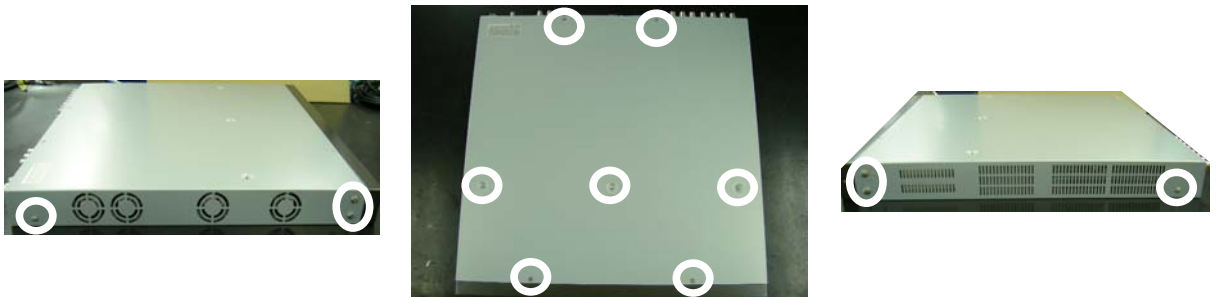
ITEM
Phillips screw driver for M3
Pincers

2-1. Installing HVS-30FP

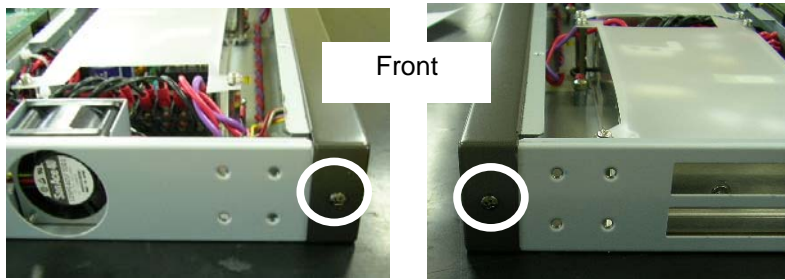
The steps below describe how to install an HVS-30FP onto the HVS-300HS.

 Caution	The installation of HVS-30FP should only be done by qualified technical personnel. To protect cards from electrostatic damage, do not touch the components on the cards.
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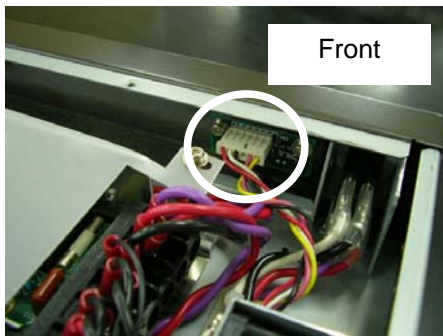
- (1) Turn the power of the HVS-300HS off and disconnect the power cord.
- (2) Remove the screws (7 on the top plate and 3 each on both sides) securing the top plate of the HVS-300HS and remove the top plate.



(3) Remove both screws (one each on both sides) securing the front panel.



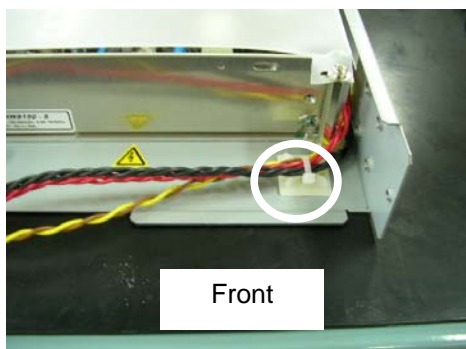
(4) Remove the joint connector circled in the figure below. This connector is not used from now on. Use a supplied cable tie to bundle the wiring. Then remove the front panel from the HVS-300HS frame.



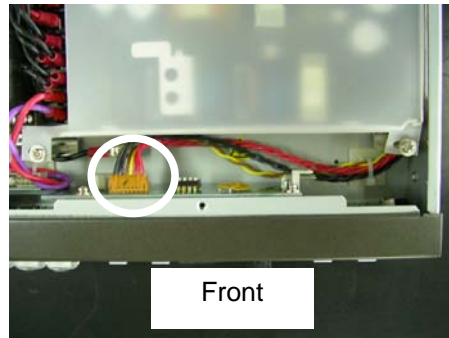
(5) Connect the joint connector of the supplied cable to the (CN16) HVS-300HS connector.



(6) Lead the wiring between the frame and side plate and use a supplied cable tie base to fasten the cable.



(7) Connect the other joint connector of the cable to the HVS-30FP.



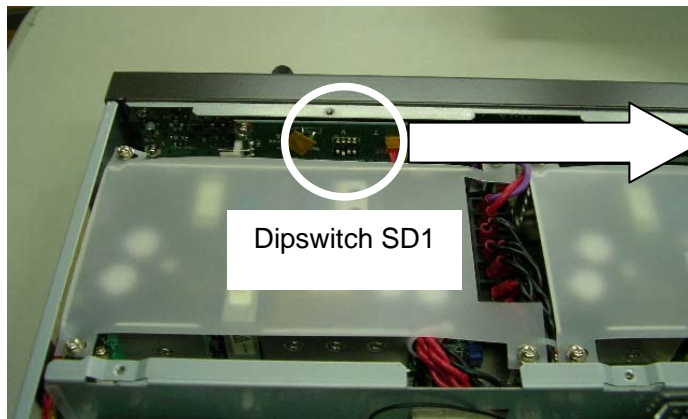
- (8) Secure the HVS-30FP to the front of the HVS-300HS with the screws removed at Step (3).
- (9) Return and secure the top plate with the removed screws.
- (10) Connect the power cord and turn on the HVS-300HS.
- (11) Check that the bus buttons on the HVS-30FP light and a wipe pattern is shown on the panel display

The HVS-30FP installation is now complete.

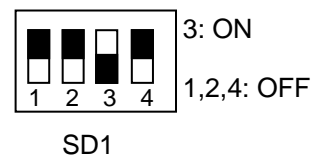
2-2. If Problems Occur...

If the bus buttons on the HVS-30FP do not light and a wipe pattern does not show up on the panel display after powering the unit on, the HVS-30FP is not working properly. Check the following items.

- Are the HVS-300HS and HVS-30FP properly connected via the control cable?
- Is dipswitch SD1 on the HVS-30FP properly set as shown below?
(Basically, resetting the SD1 setting should be unnecessary, because it is factory set at shipment.)



(Setting for HVS-30FP)



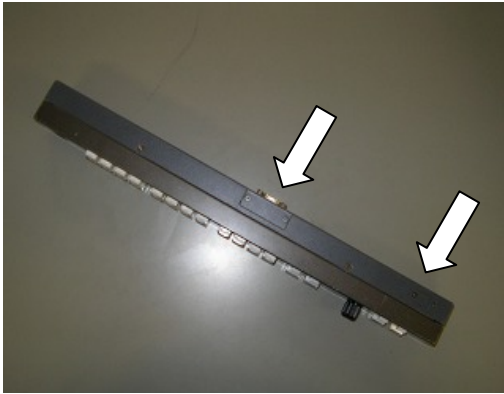
* Note that the setting for HVS-30RU is different from that for HVS-30FP.

Please consult your FOR-A reseller, if your unit does not work properly after checking these items.

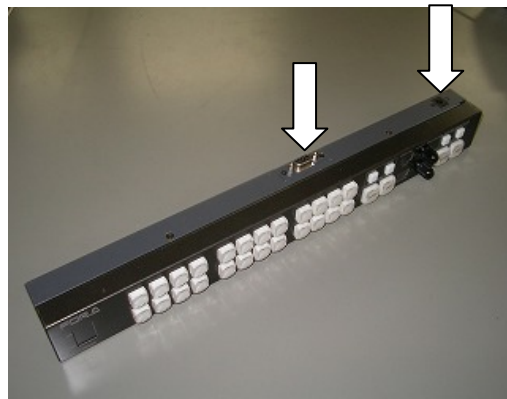
Appendix 2. Changing the HVS-30RU Connector Position

The HVS-30RU connector positions can be adjusted to accommodate use of the front panel facing forward or upright, depending on your requirements. Follow the steps below to change the connector positions.

To set up the RU with the front panel facing forward, the connectors can be installed on the rear of the unit.



To set up the RU with the front panel facing upright, the connectors can be installed on the top of the unit.



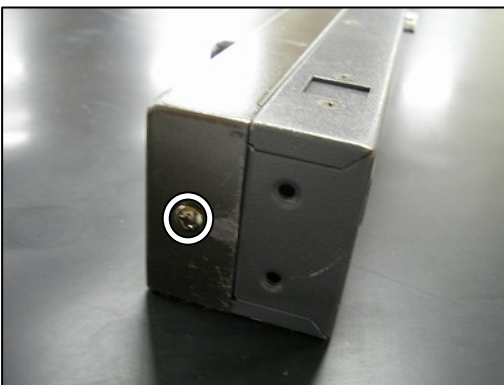
IMPORTANT

Be careful to discharge any static electricity from your body before touching internal components.

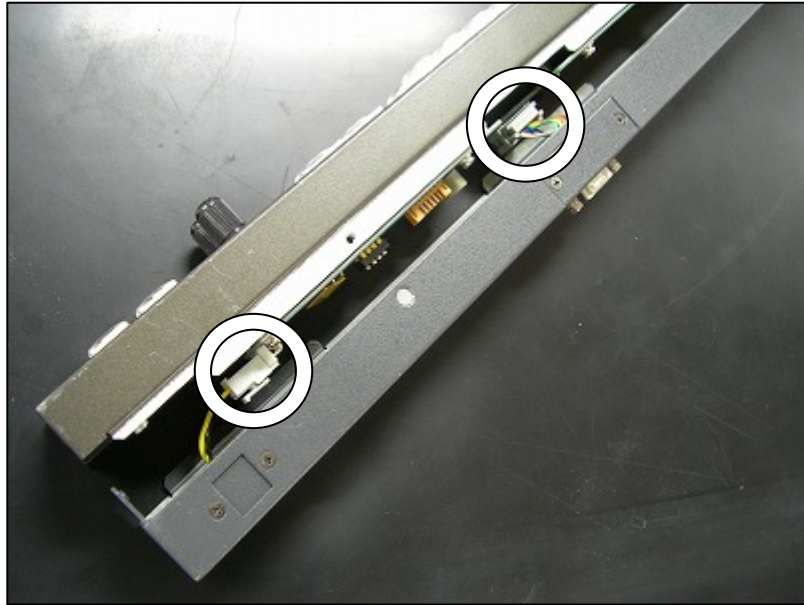
(1) Remove the two flat head screws from the top of the unit (circled below).



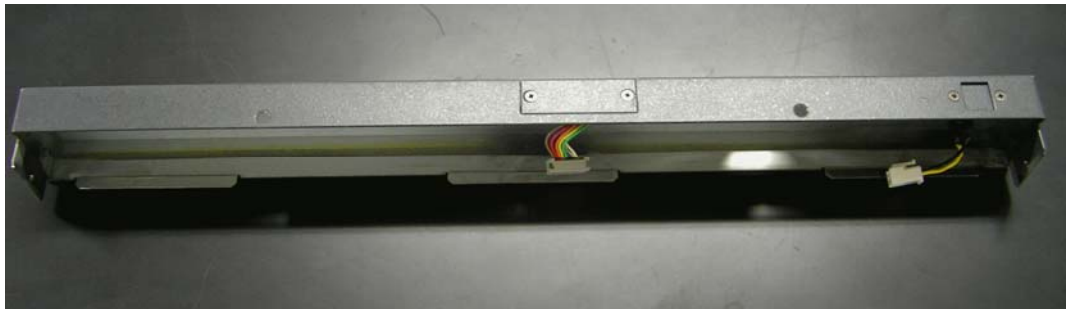
(2) Remove a binding screw from each side.



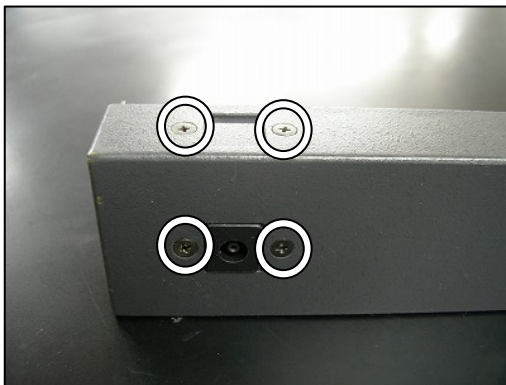
(3) Open the panel carefully and remove the two connectors from the board (circled below). Be careful not to damage the cables between the front and rear panels.



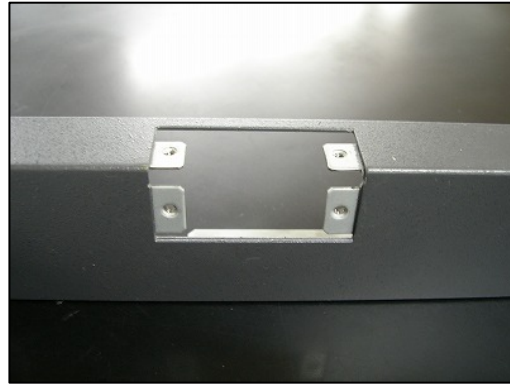
(4) After removing the connectors, remove the rear panel.



(5) Remove the eight flat head screws.



(6) After removing the above screws, remove the plates.



(7) Install blank panels to cover the unused holes, using the screws removed in step (5).



(8) Reattach the connector plates as shown below, using the screws removed in step (5).



(9) Align the front and rear panels close together and reattach the connectors removed in step (3).



(10) Reinstall the four screws removed in steps (1) and (2).

(11) Turn the power on and verify the following to see if cables are functioning properly.

- The RU is communicating with the MU.
- Switches are functioning properly.
- Control knobs are functioning properly.
- The LCD screen is functioning properly.

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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