SONY®

Live Content Producer

Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

AWS-750

Software Version 1.0



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Important Notes

Copyrights

Using this unit for video and/or audio switching, or distribution over the Internet or otherwise may in some cases require the permission of the copyright holder of the video or audio.

To protect copyright, observe the following points carefully when using this unit.

- When connecting a recording device to this and recording video or audio, carefully observe laws relating to copyright.
- Without the permission of the copyright holder, the showing or distribution of video or audio material of which the copyright is held by a third party, and permitting of access to a private group or to the public is prohibited by law.
- Even with the right to show or distribute, the act of using this unit to edit original content with wipes or dissolves, for example, may be prohibited by law.
- With a software upgrade or functional extension, with the object of protecting copyright, the specifications for the video and audio signals that can be input may be changed without notice.
- Under copyright law, you may not use recorded video or audio other than for your personal enjoyment without the permission of the copyright holder. Note that at live performances, shows and exhibitions, even for your personal entertainment shooting may be restricted.

Note on Faulty Pixels on the LCD Panel

The LCD panel fitted to this unit is manufactured with high precision technology, giving a functioning pixel ratio of at least 99.99%. Thus a very small proportion of pixels maybe "stuck", either always off (black), always on (red, green, or blue), or flashing. In addition, over a long period of use, because of the physical characteristics of the liquid crystal display, such "stuck" pixels may appear spontaneously. These problems are not a malfunction. Note that any such problems have no effect on recorded data.

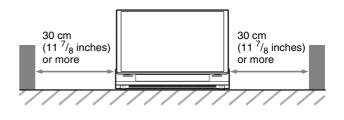
Points to Check Before Using Devices

- When streaming valuable data, be sure to check the device connections beforehand, or carry out a streaming test, to make sure that the system is operating normally.
- Sony will not be liable for any data that fails to be recorded onto the internal storage during use of the unit's recording function.

Installation

Install the unit on a flat, level surface.

There are ventilation holes on both sides of the unit. To ensure adequate air flow, there must be a space of at least 30 cm $(11^{7}/_{8} \text{ inches})$ on each side of the unit.



Note on Images Used in this Manual

The images used in this manual are created to aid in explaining operations. The actual images that are displayed or output during operations may differ.

Overview

Overview

Features

The AWS-750 Live Content Producer is an all-in-one audiovisual production system equipped with video switching, camera control, audio mixing, and live Internet distribution functions. Video switching and audio mixing can be performed via simple operations. Designed with user-friendliness in mind, the unit is equipped with two touchscreen displays, allowing you to

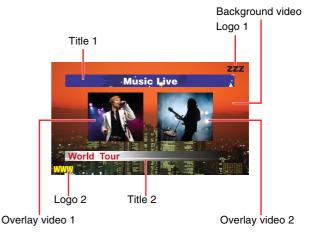
monitor and switch source materials in the main screen while mixing audio and configuring settings in the sub screen, for example.



Video switching

Composites of up to seven sources

You can overlay up to six images onto a background video, including logos, titles, and separate picture-inpicture (PinP) videos (i.e., overlay videos).



Composites can include up to two of each type of overlay (i.e., titles, logos, and overlay videos) at one time.

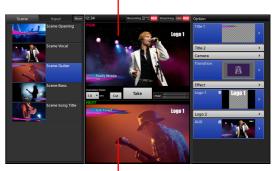
Variety of video inputs

The unit supports six video lines of input (HD/SD-SDI, composite, RGB, HDMI), allowing operations that utilize HD/SD video and PC signals at the same time, and production of a variety of video composites with high visual impact.

Video previewing

You can preview the video that will be used as the next program output in the [NEXT] viewer.

> [PGM] viewer Displays the current program output video.



[NEXT] viewer Displays the next program output video.

Saving video composites as scenes

You can save video composites as scenes that can be recalled whenever necessary.

Title creation

This unit includes a Titler function for creating titles via simple operations.

You can use the Titler to create titles that can be immediately inserted into videos or edited whenever necessary.

Recording to internal storage

You can record video composites and mixed down audio to the unit's internal storage. The recorded files can be edited using various nonlinear editors.

Two-channel output (AUX)

In addition to PGM, another video output (AUX) is available on this unit.

You can use this feature when you want to output two different videos using two projectors, or when you want to output a video without the titles and logos of the PGM output.

Audio mixing

You can mix up to five channels audio inputs. Each channel is equipped with various functions, such as a fader, input trim, filter, equalizer, limiter, compressor, and pan (balance), allowing you to adjust the audio quality and levels for each channel individually.

Remote camera control

You can perform pan, tilt, zoom, and other remote controls for VISCA-compatible cameras. In addition, pan, tilt, zoom, and other conditions can be saved as presets that can be recalled whenever necessary.

Streaming transmission

Video composites and mixed down audio can be encoded on the unit and streamed live using an external server, or recorded to the unit's internal storage as a VOD (video on demand) file.

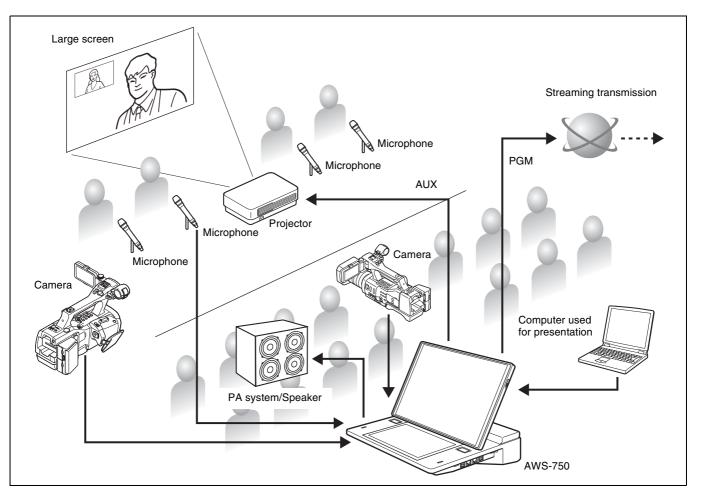
Note

The playback function for movie files and similar files (Media Player) will be supported in software version 1.1 (V1.1).

System Configuration and Operation Flow

A system configuration example and the settings required for the configuration are described here.

Use in Various Events



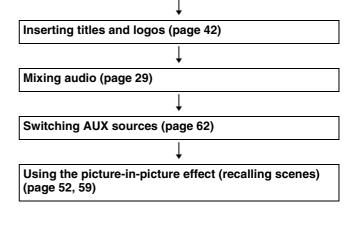
Preparation settings

- Video input/output settings (page 86)
- Audio input/output settings (page 87)
- Creating titles (page 42, 72)
- Preparing logos (page 42, 78)
- Creating and saving scenes (page 59)
- Assigning video inputs (page 37, 86)
- Streaming settings (page 68)
- AUX settings (page 61)

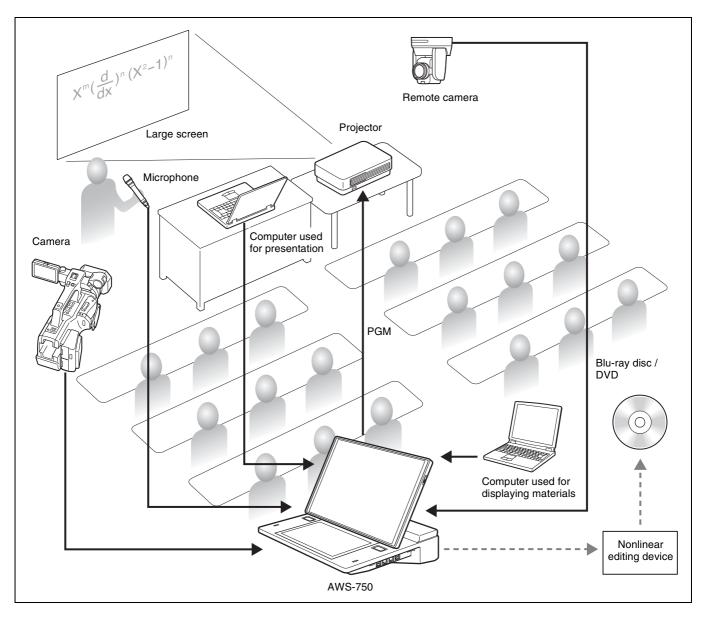
Operation flow

Displaying camera images (page 26)

Streaming transmission (page 68)



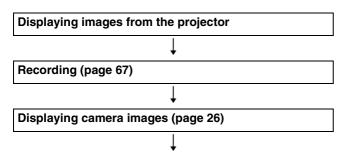
Use in Lectures and Seminars

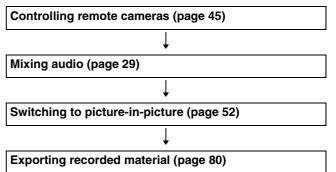


Preparation settings

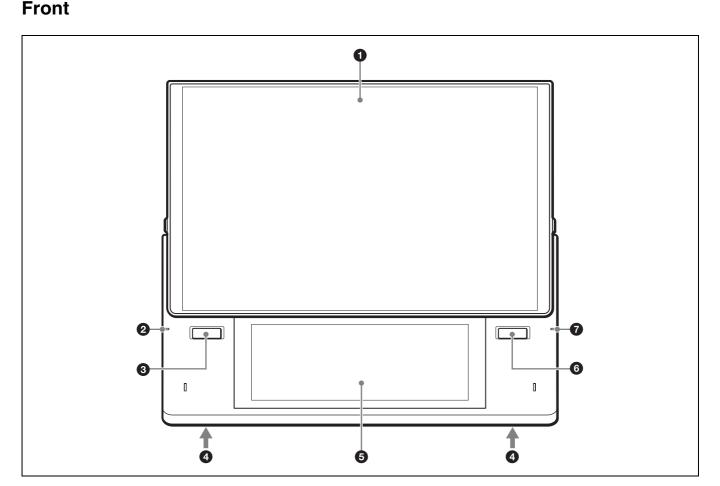
- Recording settings (page 67)
- Remote camera settings (page 82)
- Camera angle settings (page 45)

Operation flow





Parts Identification



The unit's displays are touchscreens. For details on operations, see "Using the Touchscreens" (page 19).

1 Main display

Displays the main screen used for performing video switching operations.

For details on basic operations, see "Main Screen" (page 31).

2 Power indicator

Lights green when the unit is turned on.

3 L button

Performs operations, such as source switching. The function of this button is identical to that of the [Take] button in the main screen.

4 Internal speakers (L/R)

Outputs audio (L/R) for the monitor.

When headphones are connected to the HEADPHONES jack, output from the internal speakers is disabled.

5 Sub display

Displays the sub screen used for adjustments, settings, and other operations.

For details on basic operations, see "Sub Screen" (page 35).

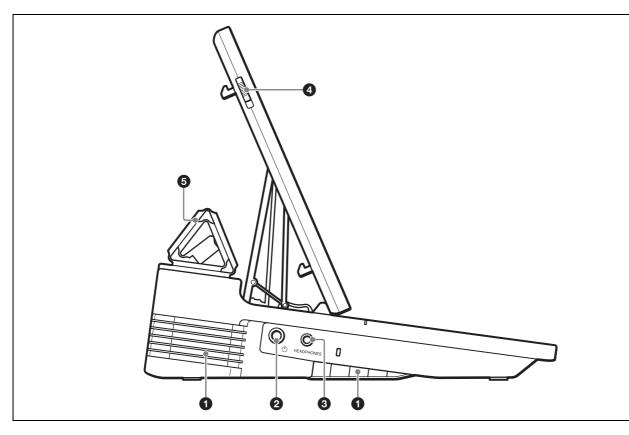
6 R button

Performs operations, such as source switching. The function of this button is identical to that of the [Take] button in the main screen.

7 Access indicator

Blinks orange when the internal storage is being accessed.

Left



1 Ventilation holes

Do not block the ventilation holes. Doing so may cause internal overheating, resulting in fire or damage to the unit.

When moving the unit after use, allow the unit to cool down sufficiently beforehand.

2 (power) switch

Turns the unit on or off (page 23). To turn off the unit, you can hold the switch for at least 4 seconds to force shutdown. If you force shutdown, the unit's settings data may not be saved in some cases.

3 HEADPHONES jack (standard stereo phone)

Outputs audio for the monitor. You can adjust the output level with [Monitor Level] in the [Audio Mixer] screen (page 30).

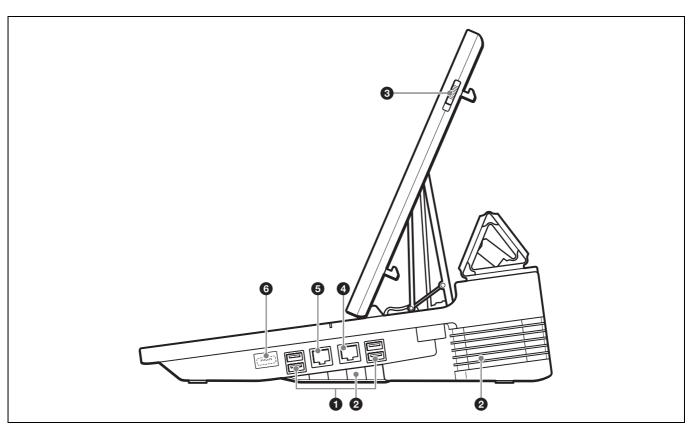
4 Release lever

Unlocks the main display from its closed state.

For details, see "Opening and Closing the Main Display" (page 16).



Protects the main display.



1 USB ports ×4

Connect USB storage devices, keyboards, and other external devices here.

The SuperSpeed USB (USB3.0) is supported. USB cameras and other USB devices not mentioned in this document are not supported.

Note

Each of the USB ports can supply a current of up to 900 mA. However, be sure to keep the total current of the four ports within 6 W (5 V 1200 mA). Operation may become unstable and the unit may not start up if 6 W is exceeded. Unusual amounts of heat may also be generated in such cases.

For details on using an external keyboard for video switching, see "Using External Devices for Video Switching and Other Operations" (page 71).

2 Ventilation holes

Do not block the ventilation holes. Doing so may cause internal overheating, resulting in fire or damage to the unit.

When moving the unit after use, allow the unit to cool down sufficiently beforehand.

3 Release lever

Unlocks the main display from its closed state.

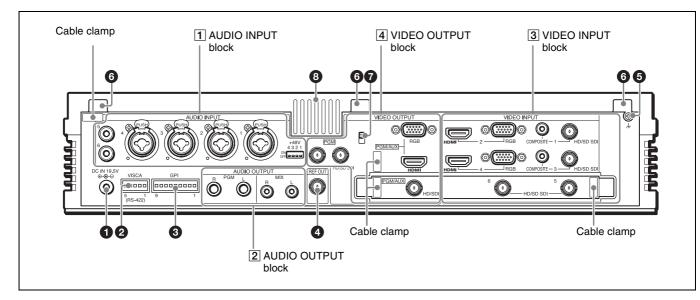
For details, see "Opening and Closing the Main Display" (page 16).

- 4 LAN 1 connector (RJ-45 modular jack) Connect this to a network when you want to perform streaming transmissions, for example.
- **5** LAN 2 connector (RJ-45 modular jack) Intended for future expansion.

6 Reserve connector

Used for manufacturing purposes. This cannot be used.

Rear



1 DC IN 19.5V (DC power input) connector

Connect the supplied AC adapter here. Be sure to use the nearby cable clamp to prevent the cable from disconnecting.

The AC adapter does not include an AC power cord.

For details on the AC power cord, see "Optional accessories" (page 95).

2 VISCA connector (RS-422, 5-pin)

When you want to control a VISCA-compatible camera from this unit, connect the VISCA cable here (page 82).

For details on pin assignments on the connector, see "VISCA connector" (page 100).

3 GPI connector

Intended for future expansion.

4 REF OUT (reference signal output) connector (BNC type)

Outputs black burst (BB) signals.

(ground) connector

Connect the system grounding conductor here.

6 Panel cover attachment points

Attach the hooks of the panel cover here (page 16).

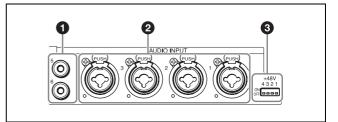
7 Anti-theft wire slot

When you want to attach a commercially available anti-theft wire to the unit, attach it to this slot $(3 \times 7 \text{ mm} (^{1}/_{8} \text{ in.} \times ^{9}/_{32} \text{ in.})).$

8 Ventilation holes

Do not block the ventilation holes. Doing so may cause internal overheating, resulting in fire or damage to the unit.

1 AUDIO INPUT block



1 LINE IN connectors 5 and 6 (pin jacks) Input analog audio signals from audio devices.

2 MIC/LINE IN connectors 1, 2, 3, and 4 (balanced XLR 3-pin / TRS combo)

Input analog audio signals from microphones and audio devices.

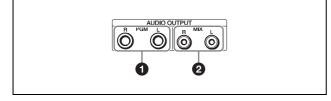
3 +48V switches

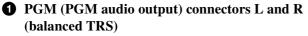
Use these when microphones that support external power supplies are connected to MIC/LINE IN connectors 1 to 4. When set to ON, the indicators light and +48V power is supplied from the unit. Power is only supplied to the XLR connector contact points and not to the TRS contact points. Use an insulated pointed object when setting a switch to the ON or OFF position.

Note

Always set these switches to OFF when you are not using microphones that supports external power supplies.

2 AUDIO OUTPUT block



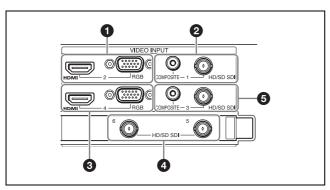


Outputs program audio that was mixed down on this unit.

MIX (MIX audio output) connectors L and R (pin jacks)

Outputs mixdown audio other than the program audio.

3 VIDEO INPUT block



For details on supported signal formats, see "Supported Input Formats" (page 97).

1 HDMI (HDMI input) connector 2 (Type A) Inputs HDMI signals.

Note

Use a Sony HDMI cable. Recommended cable example: HIGH SPEED HDMI CABLE DLC-HE20XF (6.6 feet)

Тір

Copyright protected (HDCP) signals cannot be input.

RGB (RGB video input) connector 2 (mini D-sub 15-pin) Inputs RGB signals.

Тір

HDMI connector 2 and RGB connector 2 cannot be used simultaneously. Select one or the other for use.

COMPOSITE (composite video input) connector 1 (pin jack)

Inputs analog video signals.

HD/SD SDI (SDI input) connector 1 (BNC type) Inputs HD/SD-SDI signals.

Тір

COMPOSITE connector 1 and HD/SD SDI connector 1 cannot be used simultaneously. Select one or the other for use.

3 HDMI (HDMI input) connector 4 (Type A) Inputs HDMI signals.

Note

Use a Sony HDMI cable. Recommended cable example: HIGH SPEED HDMI CABLE DLC-HE20XF (6.6 feet)

Тір

Copyright protected (HDCP) signals cannot be input.

RGB (RGB video input) connector 4 (mini D-sub 15-pin) Inputs RGB signals.

Тір

HDMI connector 4 and RGB connector 4 cannot be used simultaneously. Select one or the other for use.

HD/SD SDI (SDI input) connectors 5 and 6 (BNC type)

Inputs HD/SD-SDI signals.

COMPOSITE (composite video input) connector 3 (pin jack)

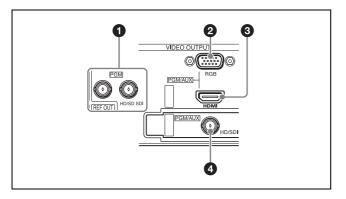
Inputs analog video signals.

HD/SD SDI (SDI input) connector 3 (BNC type) Inputs HD/SD-SDI signals.

Тір

COMPOSITE connector 3 and HD/SD SDI connector 3 cannot be used simultaneously. Select one or the other for use.

4 VIDEO OUTPUT block



For details on supported signal formats, see "Supported Output Formats" (page 98).

1 HD/SD SDI (SDI output) connectors (PGM only) (BNC type) × 2

Outputs the finished video processed on this unit (i.e., program video) as HD/SD-SDI signals.

2 RGB (RGB output) connector (PGM/AUX) (mini D-sub 15-pin)

The following video is output as RGB signals based on whether PGM or AUX is selected. **PGM:** PGM video **AUX:** AUX video

For details on selecting PGM or AUX, see "[Video Setup] Screen" (page 86).

3 HDMI (HDMI output) connector (Type A)

The following video and audio are output as HDMI signals based on whether PGM or AUX is selected.

- Video PGM: PGM video AUX: AUX video
- Audio PGM: PGM audio AUX: MIX audio

For details on selecting PGM or AUX, see "[Video Setup] Screen" (page 86).

Note

Use a Sony HDMI cable. Recommended cable example: HIGH SPEED HDMI CABLE DLC-HE20XF (6.6 feet)

4 HD SDI (SDI output) connector (PGM/AUX) (BNC type)

The following video and audio are output as HD SDI signals based on whether PGM or AUX is selected.

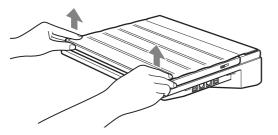
- Video PGM: PGM video AUX: AUX video
- Audio PGM: PGM audio AUX: MIX audio

For details on selecting PGM or AUX, see "[Video Setup] Screen" (page 86).

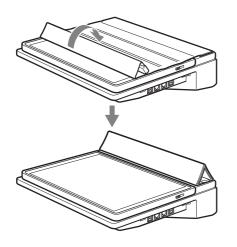
Opening and Closing the Main Display

Opening the Main Display

Lift the front portion of the panel cover to unlock it.



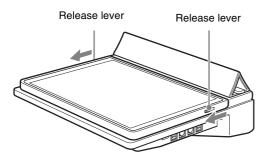
2 Open the panel cover.



Note

Initially, the panel cover may be stiff and may flip back to its original position.

3 Pull the release levers on the left and right sides in the direction of the arrows.



The left and right locks will release.

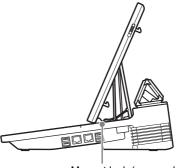
4 Lift the areas near the release levers, and slide the main display in the direction of the arrow.



The magnet locks will lock the display into place.



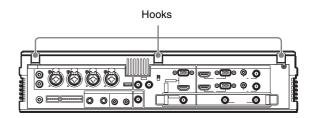
Magnet locks



Magnet lock (one each on left and right side)

Тір

The panel cover includes mounting hooks. You can attach and detach the hooks to the rear of the unit to attach or remove the cover.

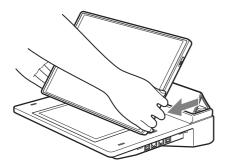


Overview

Closing the Main Display

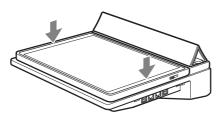
1 Hold the sides of the main display as illustrated, and pull the display in the direction of the arrow.

The magnet locks will release.



2 Slide the main display to the position illustrated, and push the display in the direction of the arrows to lock it into place.

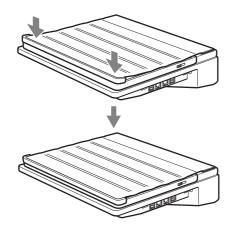
Make sure that the four hooks (two each on the right and left sides) are secure and that the main display does not open.



3 Close the panel cover.



4 Push in the direction of the arrows to lock the panel cover onto the main display.



Applying the Anti-Glare Films

Anti-glare films are supplied with this unit to protect the touchscreen displays.

Apply the anti-glare films in a dust-free environment to prevent dust from sticking to the films due to static electricity. In addition, apply the films in a well-lit environment so that you can see if air bubbles form.

Notes

- The anti-glare films cannot be reapplied once they are applied. Apply the anti-glare films with great care.
- Any dust left on the touchscreen surface will result in air bubbles.

Items to prepare

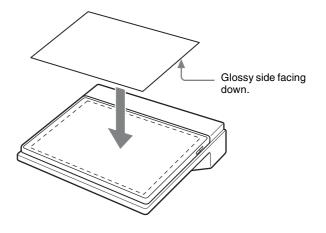
- Screen-cleaning solution
- Cleaning cloth (non-woven)
 Vinyl tape (3 cm (1 ³/₁₆ in.) or more in width)

Applying the film to the main display

- 1 If the protective sheet from the factory is still attached, remove it.
- 2 Use the screen-cleaning solution and cleaning cloth to clean the main display and remove any fingerprints, dust, or smudges.

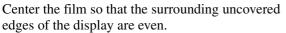
Be sure to also remove any leftover adhesive from the protective sheet from the factory that you removed.

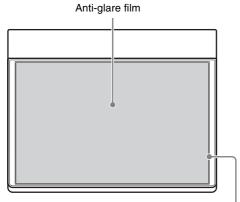
3 Place the anti-glare film for the touchscreen on the main display with its glossy side facing down.



Placement

Overview





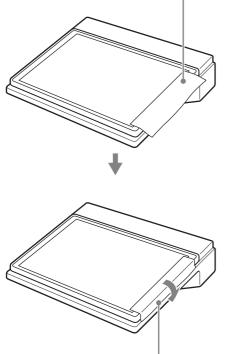
Leave about 1 mm $(^{1}/_{16} \text{ in.})$ of space evenly around the edges.

Note

If you place the film all the way to the edge of either side, the film may shift as you are applying it to the display, resulting in misalignment.

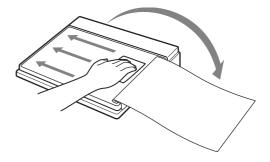
4 Use vinyl tape to affix the anti-glare film to the right side of the display.

First apply the tape to the top surface.



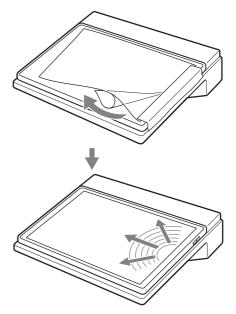
Fold the tape to affix it to the side.

5 Flip the anti-glare film over, and use the screencleaning solution and cleaning cloth to wipe off any dust. Wipe in a single direction from right to left. Verify that all specks of dust have been removed from the surface of the main display.



- **6** Place the anti-glare film back on the main display.
- 7 Peel off a portion of the backing sheet from the antiglare film on the side with the vinyl tape (i.e., the inside), and use the cleaning cloth to slowly smooth out any air bubbles, starting from the center of the right side.

Apply the film while gradually peeling the backing sheet.



If air bubbles or leftover dust occur

- Remove the anti-glare film up to the location of the air bubble or leftover dust, and remove the air or dust as you reapply the film. In such cases, do not remove the entire film. You will not be able to reapply the film if you do so.
- If specks of dust are attached to the adhesive surface of the anti-glare film, use the adhesive surface of vinyl tape to remove them.
- **8** When the anti-glare film is fully applied, firmly rub the edges of the film.

Overview

- **9** Verify that there are no air bubbles or leftover dust, and remove the vinyl tape.
- **10** Use the screen-cleaning solution and cleaning cloth to wipe the anti-glare film.

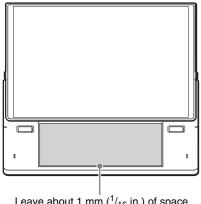
Applying the film to the sub display

Apply the anti-glare film to the sub display using the procedure used for the main display.

Place the anti-glare film on the sub display as follows.

Placement

Align the film with the front edges.



Leave about 1 mm $(^{1}/_{16} \text{ in.})$ of space around the three front edges.

Using the Touchscreens

You can perform touchscreen gestures on the main display and sub display with your fingers in place of keyboard and mouse operations.

This section describes how to perform basic touchscreen operations.

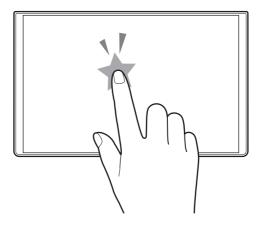
Тір

Operation errors may occur on the touchscreens if the unit is in close proximity to transceivers or other devices that emit high interference. Keep sufficient distance between the unit and such devices to prevent errors.

Тар

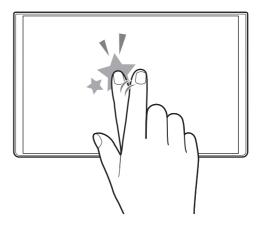
Lightly tap on a position on the screen. This performs the same operation as clicking on a mouse.

Use this gesture to perform operations, such as making and confirming selections.



Double-tap

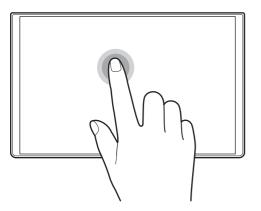
Lightly tap a position on the screen twice. This performs the same operation as double-clicking on a mouse.



Tap and hold

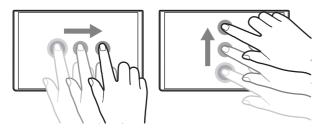
Hold your finger in place for at least 1 second after tapping.

Use this gesture to perform operations, such as displaying context menus and viewing filenames that end in "…" in their entirety.



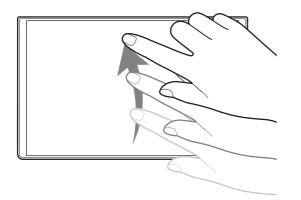
Drag

Slide your finger while holding it on the screen. This performs the same operation as dragging on a mouse. Use this gesture to perform operations, such as scrolling through lists and moving sliders.



Flick

Slide your finger quickly and release. Use this gesture to perform operations, such as scrolling quickly through lists.



Getting Started

Operation Flow

This chapter describes the procedures for using the unit for the first time, including the connection of various devices, video switching, and audio adjustment. Perform the steps in this chapter and begin switching video to get started.

Step 1	Connecting Devices (page 22)		
	Ļ		
Step 2	Turning the Unit On (page 23)		
	Ļ		
Step 3	 Initial Settings (page 24) Video Signal Format Settings Date and Time Settings Adjusting the Display Brightness 		
	Ļ		
Step 4	Video Switching (page 26)		
	Ļ		
Step 5	Audio Mixing (page 29)		

For details on operating the touchscreen, see "Using the Touchscreens" (page 19).

Default conditions of the unit

• Video input

[Input] list display	Connector number	Input signal
IN1	1	SDI
IN2	2	HDMI
IN3	3	SDI
IN4	4	HDMI
IN5	5	SDI
IN6	6	SDI
Black		Black signal generated internally by the unit
Color Bars		Color bar signal generated internally by the unit

• System format 1080 60i

• Channel fader assignments

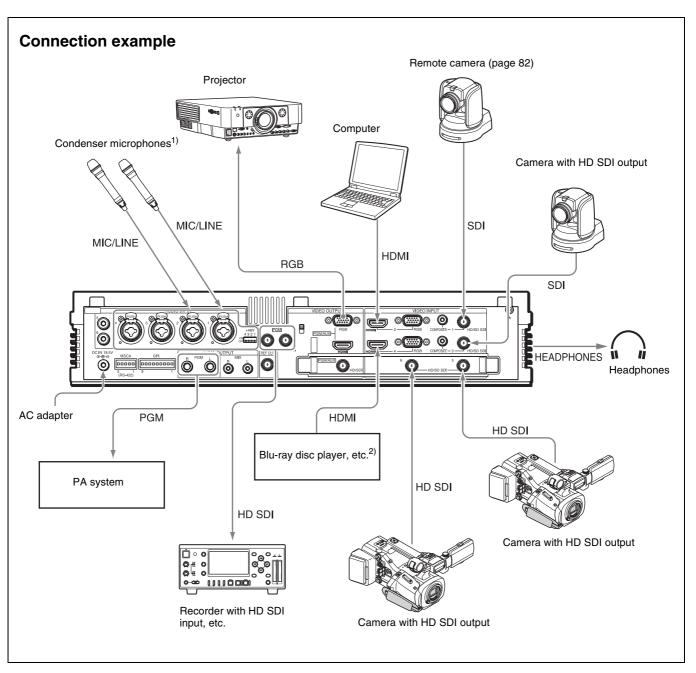
Name	Signal name	Input (L) Input (R)				
Fader 1	MIC1	MIC/LINE1	MIC/LINE1			
Fader 2	MIC2	MIC/LINE2	MIC/LINE2			
Fader 3	MIC3	MIC/LINE3	MIC/LINE3			
Fader 4	MIC4	MIC/LINE4	MIC/LINE4			
Fader 5	Used for audio embedded in SDI or HDMI signals or in videos played back in the Media Player (i.e., embedded audio).					

For details on changing the settings, see "Settings" (page 82).

Step 1: Connecting Devices

Connect the various devices to the rear of the unit.

If you have already connected the devices, proceed to "Step 2: Turning the Unit On" (page 23).



1) When using 48 V condenser microphones (supporting external power supply), set the +48V switches on the rear panel to the ON positions.

2) Copyright protected (HDCP) signals cannot be input.

Step 2: Turning the Unit On

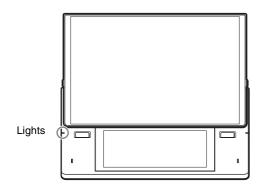
Turning the unit on

- 1 Connect the DC output plug of the supplied AC adapter to the DC IN 19.5V connector on the rear of the unit, and connect the AC adapter to a power supply.
- **2** Open the display on the unit.

For details, see "Opening and Closing the Main Display" (page 16).

3 Press the ⁽⁾ switch on the left side of the unit.

When power is supplied, the power indicator on the front left side of the unit lights green, and the unit starts up.



The startup screen appears.

When startup is complete, the main screen and sub screen appear, and you can perform operations.

Main screen



If video is being input from cameras or other devices, the video will appear immediately.

Note

This unit is designed to be used with the main display in its upright position. Do not perform operations with the main display closed.

Turning the unit off

Press the ⁽¹⁾ switch on the left side of the unit. A confirmation message appears.

The current conditions are saved before the unit shuts down and turns off. (The power indicator will turn off.)

Note

If you want to turn the unit on again after turning it off, wait at least 5 seconds before pressing the power switch again.

Step 3: System Settings

Specify the video signal format that will be handled by the unit and the date and time. If necessary, you can also adjust the brightness of the display.

If you have already configured these settings, proceed to "Step 4: Video Switching" (page 26).

Video Signal Format Settings

Specify the video signal format handled by the unit (i.e., system format) when necessary. The default setting is [1080 60i].

Тір

The [60i] setting is actually equivalent to "59.94i."

Configuration is performed in the sub screen.

1 Tap **=** at the top right of the sub screen.



The [System Setup] screen appears.

2 Tap [Video].



The [Video Setup] screen appears.

3 Tap [System Format] in the menu to the left.



The [System Format] screen appears.

4 Select the system format in the [System Format] drop-down list.

Audio Mixer			Recording	Streaming	ľ۵,	4
D Video Setup	System Format	1080 60i		•		
Input		1080 50i				
System Format		1080 60i				
Output						
System Time Code						

A confirmation message for restarting the unit appears.

5 Tap [Shutdown].

The unit shuts down.

6 Press the \bigcirc switch on the left side of the unit to turn on the unit.

Changes to the system format will be applied after the unit restarts.

Date and Time Settings

Configure the unit's internal clock.

This setting is used for the following.

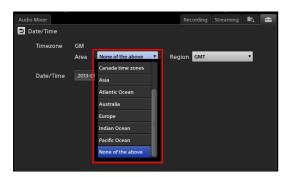
- Clock display in the main screen
- File creation and file update date and time
- System timecode

1 Tap the **E** tab to display the [System Setup] screen, and then tap [Date/Time].



The [Date/Time] screen appears.

- **2** Select the time zone.
 - ① Select the area in the [Area] drop-down list.



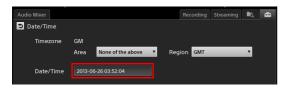
The [Region] setting changes according to the selected area.

② Select the region in the [Region] drop-down list.



3 Specify the current date and time.

① Tap the [Date/Time] field.



The configuration dialog box appears.

Specify the month, day, year, hour, minute, and second in order, and then tap [Set].
 The values highlighted in blue indicate the currently selected values.
 If the values you want to specify are not displayed,

drag the values up or down, or tap [+] or [-] to display the values.



The date and time specified will be applied to the clock in the main screen after you restart the unit.

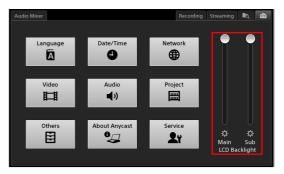


Adjusting the Display Brightness

You can adjust the backlight of the displays.

In the [System Setup] screen, drag the [LCD Backlight] sliders to adjust the brightness.

Use the [Main] slider to adjust the main screen and the [Sub] slider to adjust the sub screen.



Step 4: Video Switching

This section describes how to select an input source in the [Input] list and switch the program output video via simple operation.

Video switching is performed in the main screen.

Switching after Viewing a Preview Video

You can switch to the next video that you want to use for program output while viewing it as a preview video. The next program output video appears in the [NEXT] viewer.

1 Tap [Input] to display the [Input] list.

The video currently being used for program output appears in the [PGM] viewer. Under initial conditions, a black signal is output.



[Input] list

Displays videos being input to the unit (i.e., input sources).

2 In the [Input] list, select the input source you want to use for the program output.

The selected input source appears in the [NEXT] viewer as the next video that will be used for program output.



The next program output video appears in the [NEXT] viewer.

3 Tap the [Take] button.



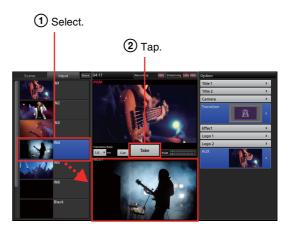
The video in the [NEXT] viewer appears in the [PGM] viewer and is output as the PGM output.



Тір

Pressing the L or R button at the left or right of the sub display performs the same operation as tapping the [Take] button.

4 Repeat steps 2 to 3 to switch from one video to the next.



|||||||||Getting Started

Videos switch from one to the next.







Тір

Under default conditions, tapping the [Take] button dissolves one video into the next using the "mix" transition method during switching. To instantly switch to the next video without a transition effect, use the [Cut] button.



For details on selecting transition methods other than mix, see "Using Transition Effects" (page 28).

Switching the PGM Directly (Direct Take)

You can also switch the program video directly, without previewing videos in the [NEXT] viewer. This operation is referred to as a "direct take."

Direct takes are performed in direct mode.

1 Tap anywhere inside the [PGM] viewer to enter direct mode.



Direct mode is enabled, and the [NEXT] viewer display dims. In direct mode, "Direct Mode" appears in the [NEXT] viewer.



Dims during direct mode.

2 In the [Input] list, select the input source you want to use for the program output.

When you select the input source, the program video switches using the currently configured transition.



3 Repeat step **2** to switch from one video to the next.

For details on selecting other transition methods, see "Using Transition Effects" (page 28).

Exiting direct mode

Tap anywhere inside the [PGM] viewer again. When you exit direct mode, the [NEXT] viewer brightens again.

Тір

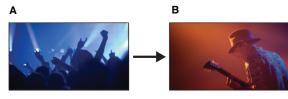
Direct mode can also be used for switching operations outside of the [Input] list.

Using Transition Effects

You can select from the following transitions for video switching on this unit.

Cut

Switch from A to B instantly without transition effects.



Mix

Dissolve from one video into the next.



Wipe

Wipe the next output video over the program video.



1 In the [Input] list, select the input source you want to use for the next program output.



The selected video appears in the [NEXT] viewer.

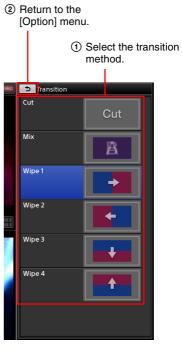
2 In the [Option] menu, tap the area on the right side of the [Transition] button.



The [Transition] list appears.

3 Select the transition method you want to use, and then tap .

You can select from four different directions for wipes.

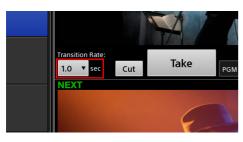


The [Transition] list closes, and the [Option] menu appears again.

4 If you want to change the transition rate, select a transition rate in the [Transition Rate] drop-down list.

Getting Started

The default transition rate is 1.0 second.



Тір

If you selected [Cut] in step **3**, switching will be instantaneous regardless of whether you changed the transition rate.

5 Tap the [Take] button to execute the transition.



The program video switches using the selected transition.

For details on changing the values for the [Transition Rate] options, see "[Transition Rate]" (page 89).

Step 5: Audio Mixing

You can mix the audio being input to the unit and mix it down to stereo program audio. Audio operations are performed in the sub screen.

This section describes how to adjust the audio for each microphone and mix multiple audio channels.

1 Adjust the audio for each microphone.

Adjustments are made separately for each microphone.

Move the sliders while verifying the audio output and audio level meter.

② Drag the sliders for the enabled channel faders to adjust the audio levels.



① Tap the channel fader buttons to which microphones are assigned to enable them. The monitored audio switches with each tap.

Tips

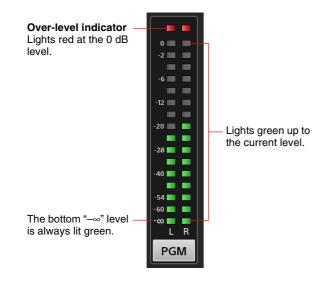
- You can operate four channel faders at the same time.
- Channel 5 is reserved for the audio embedded in the SDI or HDMI video played back in the Media Player (embedded audio).

For details, see "Adjusting the Embedded Audio of Input Sources" (page 65).

• If sound is barely audible even at the maximum channel fader level, change the MIC/LINE input level to [Low (-44dB)] in the [Audio Setup] screen. You can also adjust this in [Input Trim] (page 65) of the [Access] screen.

For details on configuration, see "[Input Channel Assign]" (page 87).

Viewing the audio level meter



2 Drag the slider for the PGM OUT fader to adjust the program output level.



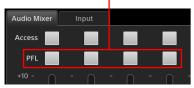
Checking each audio input

You can check the audio of each channel via the HEADPHONES jack or the internal speakers using the respective [PFL] buttons (pre-fader listen). Tap and hold a [PFL] button to monitor only the audio from that channel while the button is held. The audio will be monitored until you release the button.

Тір

The program output, AUX output, and MIX output are not affected during pre-fader listen.

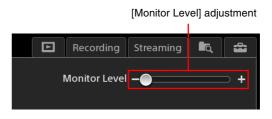
[PFL] buttons



In addition, the audio level meter switches to PFL mode (the button display switches to [PFL]) while the [PFL] button is held down, allowing you to check the levels of the audio input.

Adjusting the audio level for monitoring

Drag the [Monitor Level] slider to adjust the output level of the HEADPHONES jack and internal speakers within a range of 0 to 255.



For details on further operations and adjustments, see "Performing Detailed Audio Adjustments" (page 63).

Afterward

Proceed to "Basic Operations" (page 31) to gain a better understanding of this unit's functions and how to master their operation.

Basic Operations

Using the Screens

This section describes the features of the main screen and sub screen and how to operate them.

Main Screen

You can perform video switching operations in the main screen.

Parts identification

Scene Opening Mrt. Paulownia F 2013 Summer Logo 1 Title 2 Lucky River Dutif<u>u</u>l Bull Camera Dr. Orange Effect ene Bass Paddy Middle Vocal na Title Logo 1 Logo 2 Ø ₿ Ð đ Ð

screen.

main screen.

1 [Scene] list / [Input] list

Videos that can be used as program output are displayed here. Select the button of the video you want to use for the program video from either list.

• The source currently selected in the [NEXT] viewer will be highlighted with a blue background.



• A light blue frame will appear around a source that is currently the target of an operation, such as deletion.

Video switching is performed in the main screen, while

various adjustments and settings are performed in the sub

The results of adjustments and settings are applied immediately in the main screen. Depending on the adjustments and settings, perform them while viewing the



[Scene] list: Displays a list of registered scenes.

For details on loading saved scenes, see "Recalling Scenes" (page 60). For details on saving scenes, see "Creating Scenes" (page 59). **[Input] list:** Displays a list of videos being input to the unit's input connectors, signals created internally on the unit (i.e., black and color bar signals), and other input sources. You can also add sources to the list and edit them.

For details, see "Creating Lists" (page 37).

2 [Move]

Allows you to change the sort order of the items displayed in the [Scene] and [Input] lists (page 41).

3 Clock display (page 24)

4 [PGM] viewer

Displays the current program output video.

5 Recording status

Program outputs and AUX outputs can be recorded onto the unit's internal storage in high-quality picture and audio.

The recording status is indicated in this area as follows.



- [**Remain Time]:** When recording is in progress, this displays the remaining recording time. The remaining time is continuously updated based on the status of the internal storage.
- [REC]: When recording is in progress, this lights red. The indicator starts to blink when the remaining recording time reaches 10 minutes. When recording is not in progress, this will remain unlit. Tapping this area (i.e., within the frame) displays the

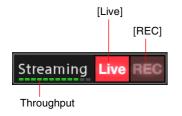
[Recording] screen (page 67) in the sub screen.

For details on recording, see "Recording Outputs from the Unit to the Internal Storage" (page 67).

6 Streaming status

Program video can be encoded on the unit and streamed live using an external server or recorded as a VOD (video on demand) file.

The streaming status is indicated in this area as follows.



- [Live]: When live streaming is in progress, this lights red. When streaming is not in progress, this will remain unlit.
- **[REC]:** When recording is in progress, this lights red. When recording is not in progress, this will remain unlit.
- **Throughput:** When streaming is in progress, this indicates the throughput. When the specified bit rate is met, the indicator lights green all the way to the far right end. As the throughput decreases and transmission slows, the indicators will turn yellow and eventually turn red. When streaming is not in progress, this will remain unlit.

Tapping this area (i.e., within the frame) displays the [Streaming] screen (page 69) in the sub screen.

For details on streaming, see "Streaming" (page 68).

7 [Option] menu

Displays a list of options that can be added to the material that will be output next.

- [Title 1] / [Title 2]: Insert titles onto the video (page 42).
- [Camera]: When remote control is configured for the camera video, this allows you to save or load presets (page 47).

[Transition]: Select the transition method (page 28).

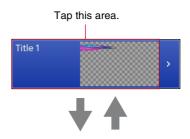
- [Effect]: Compose a picture-in-picture (PinP) video with a video overlaid on another video (page 52), or insert people onto backgrounds via chroma keying. Composites that include both PinP and chroma keying are possible (page 54).
- [Logo 1] / [Logo 2]: Insert logos onto video (page 42).
- [AUX]: Select the material to output to AUX (page 61).

To enable or disable options

Tap the following area of the button to enable or disable the respective option.

Enabled

The option is selected for use in the next program output.



Disabled

The material is ready for use but is not selected for use in the next program output.

When you recall a scene while a title or logo is protected, the video composite will be as follows.



Closed buttons

If the material for an option is not ready for use or the option is excluded from use with the next program output, the button will be closed.



To close a button

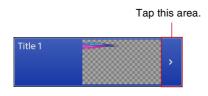
Display the context menu of the respective button, and select [Remove].



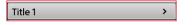
To display the list for an option

Tap the following area of the button to display the list for that option (see (3)) that allows you to configure the option content.

• When the button is open

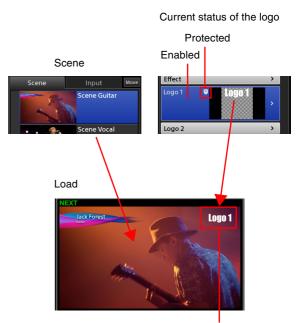


• When the button is closed Tapping any area will display the list.



8 🛢 (protect) icon

Indicates that the current title or logo is protected. When an item is protected, its current status is retained. Therefore, recalling a scene will not change its status.



The protected logo material is inserted.

To enable protection

Display the context menu for the [Title 1] / [Title 2] button or the [Logo 1] / [Logo 2] button in the [Option] menu, and select [Protect].

To disable protection

Display the context menu for the [Title 1] / [Title 2] button or the [Logo 1] / [Logo 2] button in the [Option] menu, and select [Unprotect].

9 Option list

Displays a list of content for the option. Select the content you want to add to videos in this list.

Example: [Title 1] list

Return to the [Option] menu.

Change the sort order of the list (page 41).



The currently enabled button is highlighted with a blue background.

Program output control area

Allows you to perform operations for the program output.

- [Transition Rate]: Adjusts the transition rate of program video switching.
- [**Cut**] **button:** Switches the program video using a cut transition.
- [Take] button: Switches the program video using the selected transition method and transition rate.

The transition method is selected in [Transition] of the [Option] menu. For details, see "Using Transition Effects" (page 28).

🚯 🔔 mark

This warning mark appears if a problem exists with materials in the [Scene] list or [Option] menu.

For details, see "<u>I</u> Icon Displays in Lists" (page 91).

A light blue frame will appear around an option that is currently the target of an operation.

For details on editing the list, see "Creating Lists" (page 37).

(AUX lock) icon

Indicates that the selection status of the AUX is locked.

For details, see "Locking the AUX selection status" (*page 61*).

1 Audio level meter

Displays the audio levels of the program output or the MIX output within a -60 dB to 0 dB range.

Viewing the audio level meter

Over-level indicator Lights red at the 0 dB level.



Lights green up to the current level.

The setting in the [Audio Mixer] screen of the sub screen appears here.

I [NEXT] viewer

Displays the next program output video. You can also preview options here.

Sub Screen

You can perform adjustments, configure settings, and enter text in the sub screen. Tapping each tab displays its respective operation screen.



1 [Audio Mixer] screen

Allows you to perform audio adjustments and mixing.

The [Audio Mixer] screen appears immediately after the unit starts up.

For details, see "Step 5: Audio Mixing" (page 29).

2 Tabs that appear according to the selections and status of the main screen

[Input] tab

Appears when the input source selected in the [Input] list of the main screen includes audio.

Allows you to enable or disable the embedded audio.

For details, see "Adjusting the Embedded Audio of Input Sources" (page 65).

[Camera] tab

Appears when a remote camera is assigned to the input source selected in the [Input] list of the main screen.

Allows you to perform manual controls for the remote camera.

For details, see "Controlling Remote Cameras" (page 45).

[Title] tab

Appears when the [Title 1] or [Title 2] list is displayed in the main screen. Allows you to adjust the title appearance.

For details, see "To adjust the appearance of composites" (page 43) in the "Viewing Title Composites" section.

[Effect] tab

Appears when the [Effect] list is displayed in the main screen.

Allows you to adjust the size and position of the overlay video and the appearance of chroma key composites.

For details, see "Compositing Videos Using Picturein-Picture (PinP)" (page 52) and "Inserting People onto Backgrounds (Chroma Keying)" (page 54).

[Logo] tab

Appears when the [Logo 1] or [Logo 2] list is displayed in the main screen. Allows you to adjust the logo position.

For details, see "To adjust the position" (page 44) in the "Viewing Logo Composites" section.

3 [Media Player] tab

Appears when [Media Player] is registered in the [Input] list or [AUX] list of the main screen. Allows you to perform playback operations for movies (or still images) using the Media Player.

For details, see "Playing Back Material Files in the Media Player (V1.1 Function)" (page 48).

4 [Recording] tab

Output can be recorded onto the unit's internal storage in high-quality picture and audio. You can perform operations and configurations related to recording in the [Recording] screen.

For details, see "Recording Outputs from the Unit to the Internal Storage" (page 67).

5 [Streaming] tab

Output can be encoded on the unit and streamed live using an external server or recorded as a VOD (video on demand) file. You can perform operations and configurations related to streaming in the [Streaming] screen.

For details, see "Streaming" (page 68).

6 (file manager) tab

Allows you to manage files stored on the unit's internal storage.

For details, see "Managing Files (File Manager)" (page 76).

🛛 🚰 (system setup) tab

Allows you to configure system settings for the unit.

Creating Lists

You can create lists by adding materials to the [Input] list, [Title 1]/[Title 2] list, [Logo 1]/[Logo 2] list, and [AUX] list. Lists are created using the context menu that appears when you tap and hold an area within the respective list. The operations that can be performed and the materials that can be added will differ depending on the list.

List	Item limit	-	Context menu operation								
		channel support	Auu Source	Add Still Picture (page 38)	Add Media Player (page 39)		Edit (page 40)	Delete (page 41)			
[Input]	99	No	Yes	Yes	Yes	Yes	Yes	Yes			
[Title 1]/ [Title 2]	99	Yes	Yes ²⁾	Yes	No	Yes	Yes	Yes			
[Logo 1]/ [Logo 2]	7	Yes	No	Yes ³⁾	No	No	No	Yes			
[AUX]	9	No	Yes	No ⁴⁾	Yes	No	No	Yes			

1) The external signals configured in the [Video Setup] screen of the [System Setup] menu and the unit's internally generated signals are referred to as "sources" on this unit.

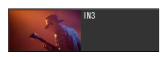
- 2) Only external signals can be added.
- 3) Only files imported to the [Logo] category can be added.
- 4) When adding still images, use [Add Media Player].

Note on image displays

Materials with aspect ratios other than 16:9 will retain their aspect ratios and be fitted to the top and bottom of their displays (black bars appear on the left and right) in the thumbnails that appear in lists and in the [NEXT] and [PGM] viewers.

Examples: List thumbnails

• 16:9 material



• Material other than 16:9



Тір

The unit's internally generated signals have an aspect ratio of 16:9.

Preparing Materials

Prepare the materials to be added to the lists.

Input sources

Assign video input signals, specify input channels for embedded audio, and configure remote control settings for cameras in the [Video Setup] screen > [Input] of the [System Setup] menu.

For details on configuration, see "[Input]" (page 86).

Material files

Still image and movie files

Import still image files (including logos and titles created using other tools) and movie files to the unit's internal storage.

For details, see "Importing Files" (page 78).

Titles

Create titles using the Titler.

For details, see "Creating Titles (Titler)" (page 72).

Adding Input Sources to the Lists (Add Source)

Add the external signals configured in the [Video Setup] screen of the [System Setup] menu and the unit's internally generated signals to the lists.

1 Display the context menu in the position you want to add the input source, and select [Add Source].

If you perform the operation on a button, the item will be added below that button.



The [Add Source] dialog box appears.

2 Select the input source you want to add, and then tap [OK].

Add Source	
Video Input	Name
Video Input 1 (SDI)	IN 1
Video Input 2 (HDMI)	IN 2
Video Input 3 (SDI)	IN 3
Video Input 4 (HDMI)	IN 4
Video Input 5 (SDI)	IN 5
Video Input 6 (SDI)	IN 6
Internal Source	Black
Internal Source	Color Bars
ОК	Close

3 Tap [Close] to close the dialog box.

The input source is added to the specified position.



If necessary, you can change the input connector and name settings. For details, see "[Video Setup] Screen" (page 86).

Adding Still Images to the Lists (Add Still Picture)

Add still images imported to the unit's internal storage or still images created with the Titler to the lists.

For details on importing files, see "Managing Files (File Manager)" (page 76).

For details on the Titler, see "Creating Titles (Titler)" (page 72).

1 Display the context menu in the position you want to add the still image, and select [Add Still Picture].

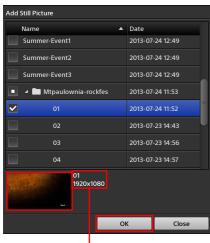
If you perform the operation on a button, the item will be added below that button.



The [Add Still Picture] dialog box appears.

2 Tap the file you want to add to place a check mark on it, and then tap [OK].

You can select multiple files.



You can view the thumbnail and resolution of the file highlighted in blue.

3 Tap [Close] to close the dialog box.

The still image is added to the specified position.



Adding the Media Player to the Lists (Add Media Player) (V1.1 Function)

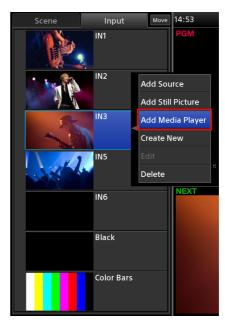
Add the Media Player when you want to add movies imported to the unit's internal storage or files that were recorded to the unit's internal storage via the [Recording] or [Streaming] functions to the lists.

In addition, when you want to add still images to be used as PinP overlay videos or add still images to the [AUX] list, add the Media Player to the lists.

Тір

Only one instance of the Media Player can be added per list.

Display the context menu in the position you want to add the Media Player, and select [Add Media Player]. If you perform the operation on a button, the item will be added below that button.



Basic Operations

The [Media Player] button is added to the list.

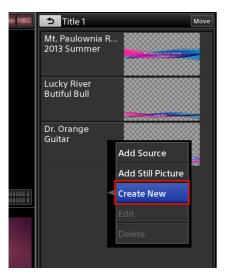
For details on Media Player operations, see "Playing Back Material Files in the Media Player (V1.1 Function)" (page 48).

Creating and Adding New Titles (Create New)

You can start the Titler directly from a list and create titles and other still images to be added to the list. This is useful when you want to specify the destination for registration during the title creation process.

1 Display the context menu in the position you want to add the title, and select [Create New].

If you perform the operation on a button, the item will be added below that button.



The Titler starts, and the [Folder] dialog box for selecting the folder in which to save the file appears.

2 Create the title using the Titler.

For details, see steps **3** (page 73) and beyond in the "Starting from the [File Manager] screen" section and "Using the [Titler] Screen" (page 74).

3 If you want to create additional titles, display the context menu in the file list of the [Titler] screen, and select [Create New].

To create a new file by copying an existing file, display the same context menu and select [Copy] and then [Paste].

4 When you finish creation, close the [Titler] screen and return to the main screen.

The newly created still images are added to the list.

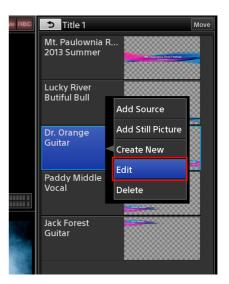
Тір

When you perform creation after starting the Titler from a list via [Create New], the still images are added directly to the list. The [Add Still Picture] operation is not necessary.

Editing Text Created in the Titler (Edit)

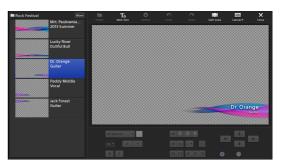
You can start the Titler directly from a list and edit text for still images that were created using the Titler.

1 Display the context menu on the button of the still image you want to edit, and select [Edit].



The Titler starts, and the editing screen of the selected still image appears.

2 Edit the text.



Тір

You can also edit other titles stored in the folder. However, edits will only be reflected in the list for files that are already registered to the list.

3 When you finish editing, close the [Titler] screen and return to the main screen.

The edits are reflected in the list.

Removing Material Buttons from the Lists (Delete)

Display the context menu on the button of the material you want to delete, and select [Delete].



Changing the Sort Order of the Lists

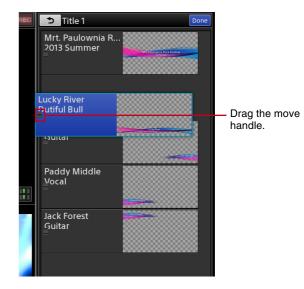
You can change the sort order of each list.

1 Tap [Move] at the top right of the list.



Move handles appear on each button. The [Move] button changes to [Done], and move mode is enabled. **2** Drag the move handle of the button you want to move to the desired position.

Dragging an area other than the move handle will not move the button.



|||||| Basic Operations

3 When you finish sorting, tap [Done].

Move mode is disabled, and the [Done] button changes to [Move].

Inserting Titles

You can insert titles onto the program video using one of the following three methods.

- Insert a title created on this unit
- Insert a still image title created using a separate tool
- Insert an external signal

Depending on the material used for the title, the title will be inserted as follows.

• **Insert a still image that includes an alpha channel** The area determined by the alpha channel will be displayed as the title.

Background video





Title with alpha channel



Тір

When inserting still images that do not include alpha channels, clip, gain, and density adjustments are required.

For details on the clip, gain, and density settings, see "To adjust the appearance of composites" (page 43).

• Insert an external signal

Insert a signal from a computer that is connected via SDI or HDMI interface, for example. The portions of the image with high brightness will be displayed as the title.

Background video



Тір

To produce a desired image, clip, gain, and density adjustments are required.

For details on the clip, gain, and density settings, see "To adjust the appearance of composites" (page 43).

Preparing Titles

Prepare the materials for titles, and add them to the [Title] list for options.

Prepare title materials using the following methods based on their intended purpose.

• When inserting titles created on this unit Create titles using the Titler.

For details on creation, see "Creating Titles (Titler)" (page 72).

• When inserting still image titles created using a separate tool

Create a title file that includes an alpha channel using another tool beforehand, and then import that file to the unit's internal storage.

For details, see "Importing Files" (page 78).

• When using external input signals

For details on using external input signals, see "[Input]" (page 86).

Creating [Title] lists

Create lists by adding title materials to the [Title 1] and [Title 2] lists.

For details on creation, see "Creating Lists" (page 37).

Viewing Title Composites

You can view the appearance of a title that is inserted onto a video in the [NEXT] viewer.

This section describes the procedure for the [Title 1] list as an example.

- 1 In the [Input] list, select the background video on which you want to insert the title, and display it in the [NEXT] viewer.
- **2** Display the [Title 1] list.
- **3** Select the title you want to insert, and adjust its appearance.

When you select a title in the [Title 1] list, the title appears in the [NEXT] viewer.

 Norm
 D6:14
 Recording
 Bit Streaming
 Title 1
 More

 PGM
 Users
 2013 Summer
 2013 Summer
 2013 Summer

 Users
 Users
 Users
 2013 Summer
 2013 Summer

 Normon nore:
 10 - 9 +** cut
 Take
 rout stimulities

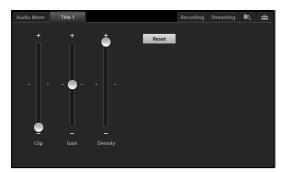
 NEXT
 Image: Streaming
 Jack Forest Guitar

If the image includes an alpha channel, a checkered pattern appears in the areas where the background image will be displayed.

Select the title you want to insert.

To adjust the appearance of composites

When you select the title you want to adjust in the [Title 1] list, the [Title 1] tab appears in the sub screen. Tap the [Title 1] tab to display the [Title 1] screen, and drag the sliders to perform adjustments.



- [Clip]: Adjust the amount of background loss (i.e., clip value) within a range of 0.00 to 100.00.
- [Gain]: Adjust the sharpness of outlines (i.e., gain value) within a range of -100.00 to +100.00.
- [**Density**]: Adjust the transparency of the title within a range of 0.00 to 100.00.

Тір

Depending on the values configured for each setting, the title may not be displayed. In such cases, tap [Reset] to restore the original state, and perform adjustment again.

4 Tap 5.

The [Title 1] list closes, and the [Option] menu appears again.

The thumbnail of the selected title appears on the [Title 1] button.

Tapping the button again removes the title display (i.e., the title will be in its disabled state).

Enabled



Displayed

Inserting Logos

You can insert up to two still images at 320×320 size as logos onto the video. We recommend using images that include alpha channels for logos.

The area determined by the alpha channel will be displayed as the logo.

Logo with alpha channel



Composite result



Preparing Logos

Create a logo file that includes an alpha channel using another tool beforehand, and then import that file to the unit's internal storage.

For details, see "Importing Files" (page 78).

Creating [Logo] lists

Create lists by adding logo materials to the [Logo 1] and [Logo 2] lists.

For details on creation, see "Creating Lists" (page 37).

Viewing Logo Composites

You can view the appearance of a logo that is inserted onto a video in the [NEXT] viewer.

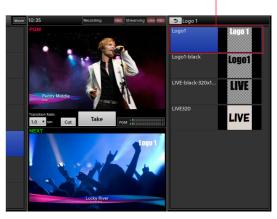
This section describes the procedure for the [Logo 1] list as an example.

- 1 In the [Input] list, select the background video on which you want to insert the logo, and display it in the [NEXT] viewer.
- **2** Display the [Logo 1] list.

3 Select the logo you want to insert, and adjust its position.

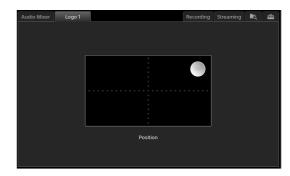
When you select a logo in the [Logo 1] list, the logo appears in the [NEXT] viewer.

Select the logo you want to insert.



To adjust the position

When you select the logo you want to adjust in the [Logo 1] list, the [Logo 1] tab appears in the sub screen. Tap the [Logo 1] tab to display the [Logo 1] screen, and drag the adjustment handle to adjust the position.



4 Tap **▶**.

The [Logo 1] list closes, and the [Option] menu appears again.

The thumbnail of the selected logo appears on the [Logo 1] button.

Tapping the button again removes the title display (i.e., the title will be in its disabled state).



Displayed

Controlling Remote Cameras

You can control and perform adjustments for cameras connected to the unit via VISCA cable, and save the adjustments as presets to be recalled later.

To control a camera, you must assign the VISCA camera as an input source in the [Input] list and perform configurations to enable remote control beforehand. For details, see "Remote Camera Connections and Settings" on page 82.

Controlling Cameras

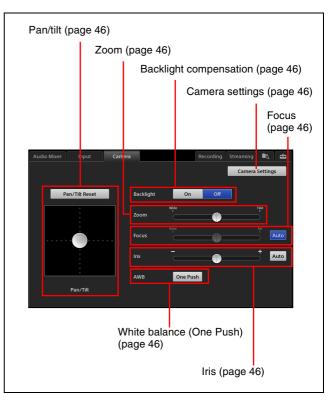
1 In the [Input] list of the main screen, select the camera input source you want to control and display its video in the [NEXT] viewer.

The [Camera] tab appears in the sub screen.

2 Tap the [Camera] tab.

The [Camera] screen appears.

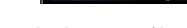
3 Perform pan/tilt, zoom, iris, and other operations while viewing the video in the [NEXT] viewer.



For details on each operation, see the following sections.

Тір

If you tap the [NEXT] viewer while the [Camera] screen is displayed, adjustment handles appear in the [NEXT] viewer, allowing you to perform pan/tilt and zoom controls. If you tap the [NEXT] viewer again, control will return to the [Camera] screen.



Adjusting the pan/tilt Drag the [Pan/Tilt] adjustment handle to adjust the pan and tilt of the camera.

- Dragging the handle diagonally adjusts both the pan and the tilt simultaneously. When you release your finger, the adjustment handle returns to its original position.
- If you want to redo adjustments from the home position, tap [Pan/Tilt Reset] to reset the pan/tilt positions.

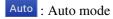
Adjusting the zoom

Drag the [Zoom] slider to perform adjustments. When you release your finger, the slider returns to the middle position.

Adjusting the focus

You can select whether to adjust the focus automatically or manually in [Focus].

Adjustment switches between auto mode and manual mode with each tap of the [Auto] button.



Auto : Manual mode

If the focus is set to manual mode, drag the slider to perform adjustments. When you release your finger, the slider returns to the middle position.

Adjusting the iris

You can select whether to adjust the iris automatically or manually in [Iris].

Adjustment switches between auto mode and manual mode with each tap of the [Auto] button.

Auto : Auto mode

Auto : Manual mode

If the iris is set to manual mode, drag the slider to adjust. When you release your finger, the slider returns to the middle position.

Enabling backlight compensation

Tap the [On] button for [Backlight] to enable the backlight compensation function. Tap [Off] to disable the function.

Automatically adjusting the white balance under the current conditions

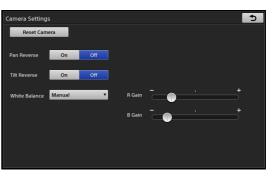
Tap the [One Push] button for [AWB] (auto white balance).

This function can be used when [White Balance] is set to [One Push] in the [Camera Settings] screen (page 46). When you tap [One Push], the white balance will be adjusted according to the current subject of the image. After doing so, view the results of automatic adjustment and check that the white areas of the video are correct in the [NEXT] viewer.

Configuring camera settings

In the [Camera] screen, tap [Camera Settings].

The [Camera Settings] screen appears.



- [Pan Reverse] / [Tilt Reverse]: Use these functions to correct the reversal of up, down, left, and right movement that occurs when the camera is installed upside down on a ceiling, for example. Select [On] to reverse up, down, left, and right movement, and select [Off] to enable normal movement.
- [White Balance]: Select one of the following white balance modes.
 - [Disable]: Disabled.
 - [Auto]: Automatic adjustment.
 - [Indoor]: Indoor mode.
 - [Outdoor]: Outdoor mode.
 - **[One Push]:** Forcibly draw out whites from the lighting condition of the subject, and use this condition during shooting. [AWB] in the

Controlling Remote Cameras

[Camera] screen is only enabled when [One Push] is selected here.

- [Manual]: Manual adjustment. [R Gain] and [B Gain] adjustments are only enabled when [Manual] is selected here.
- [**R** Gain]: Drag the slider to adjust the red gain. [**B** Gain]: Drag the slider to adjust the blue gain.
- **2** When you finish configuration, tap **2**.

The [Camera] screen appears again.

Resetting remote cameras

When you want to change the VISCA ID for cameras and reestablish connections to cameras, tap [Reset Camera] in the [Camera Settings] screen.

Depending on the camera model, the pan and tilt may return to their default positions. When you use the [Reset Camera] function, connection will be reestablished for all cameras connected for VISCA control.

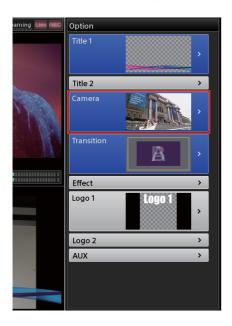
Saving Adjustments as Presets

Up to 16 presets can be saved for each camera.

1 In the [Input] list, select the camera input source you want to control and display its video in the [NEXT] viewer.

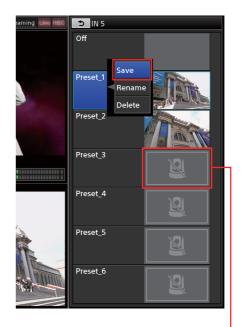
The [Camera] tab appears in the sub screen.

- **2** Tap the [Camera] tab to display the [Camera] screen, and perform pan/tilt, iris, zoom and other operations.
- **3** Select [Camera] in the [Option] menu.



The [Camera] list appears.

4 Display the context menu in the position you want to add the preset, and select [Save].



This image will appear on buttons for which presets are not saved.

The preset is saved, and a thumbnail appears.

Note

Setting values are stored on the camera.

Renaming presets

Display the context menu of the preset you want to rename, and select [Rename]. When the virtual keyboard appears, you can enter up to 20 alphanumeric characters.

Deleting presets from the list

Display the context menu of the preset you want to delete, and select [Delete].

Recalling Presets

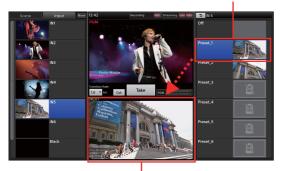
- 1 In the [Input] list, select the camera input source you want to control and display its video in the [NEXT] viewer.
- **2** Select [Camera] in the [Option] menu.

The [Camera] list appears.

3 In the [Camera] list, select the preset you want to recall.

The preset video is recalled in the [NEXT] viewer.

When you select a preset...



...the preset is recalled.

Disabling presets

Use one of the following methods.

- Select [Off] in the [Camera] list.
- In the [Option] menu, display the context menu for the [Camera] button, and select [Remove] to close the button.

Playing Back Material Files in the Media Player (V1.1 Function)

The following material files can be played back in the Media Player.

- Movies and still images imported to the unit's internal storage
- Still images created with the Titler
- Files recorded to the unit's internal storage via the [Recording] function
- Files recorded to the unit's internal storage via the [Streaming] function

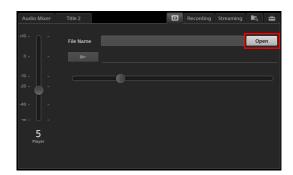
For details on importing material files, see "Importing Files" (page 78).

For details on adding the Media Player to the list, see "Adding the Media Player to the Lists (Add Media Player) (V1.1 Function)" (page 39).

- In the list, select [Media Player].
- **2** Tap the \square tab.

The [Media Player] screen appears.

3 Tap [Open].



The [Open] dialog box appears.

4 Select the category to which the file belongs, select the file to play back, and then tap [OK].

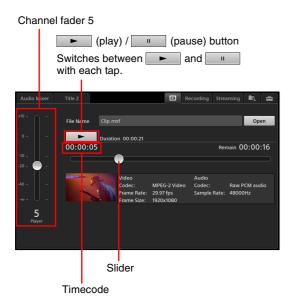
Categories		
Open		
Still	Name	Date 🔻
Movie	Clip_01.mxf	2013-07-31 11:07
Recording	Clip.mxf	2013-07-31 10:30
Streaming		
1920 x 1080		
		OK Cancel

You can view the thumbnail and resolution of the selected file.

For details on categories, see "Managing Files (File Manager)" (page 76).

The thumbnail and name of the file appear in the [Media Player] screen and the list.

5 Adjust the playback start position and audio level of the file in the [Media Player] screen.



To adjust the playback position of files

The timecode of the playback position appears to the top left of the slider.

Тір

The timecode is a relative timecode with the beginning of the file being "00:00:00."

To adjust the audio

If a movie includes embedded audio, drag the channel fader to adjust the audio level.

Tips

- Embedded audio will be assigned to channel fader 5 automatically.
- When the [Media Player] tab is displayed, the unit enters audio preview mode automatically, allowing you to listen to audio via the HEADPHONES jack or the internal speakers. Audio preview does not affect the PGM output or MIX output.
- **6** Tap **•** to verify file playback.

Verify that playback of the file is stable.

7 Tap the [Take] button or [Cut] button to switch the video in the main screen.

Mixing embedded audio

If embedded audio is output due to a [Take] operation, the embedded audio is automatically assigned to channel fader 5.

After the [Take], you can adjust the audio level by dragging the slider for channel 5 in the [Audio Mixer] screen.



Тір

If channel fader 5 is being used for both input and the Media Player, the Media Player will have priority.

To stop playback

Tap in the [Media Player] screen.

Entering Text

Text is entered in the sub screen using the virtual keyboard.

1 Tap the text entry field in the main screen or the sub screen.



🔊 Video Setup Input 2 • 0 • Input 3 Input 4 System Format Output \odot \odot Input 5 Input 6 System Time Code SDI Auto 1/2C VISCA 1(BRC-H700 ote Control

The virtual keyboard appears in the sub screen.

2 Enter the text.

Care	t				Ente it is c				ars h	ere b	efore
Input Name										×	
IN 1											
@123 q	w	е	r	t	у	u	i	0	р	Delete	
Caps Lock	n s	c		; <u> </u>	g ł	n j	i H				
Ŷ	z	x	с	v	b	n	m	-			
	,	•		Sp	ace		+	+			

The text appears on the virtual keyboard while it is being entered.

3 Tap **4** (enter) to confirm the entry.

The virtual keyboard closes, and the text is entered.

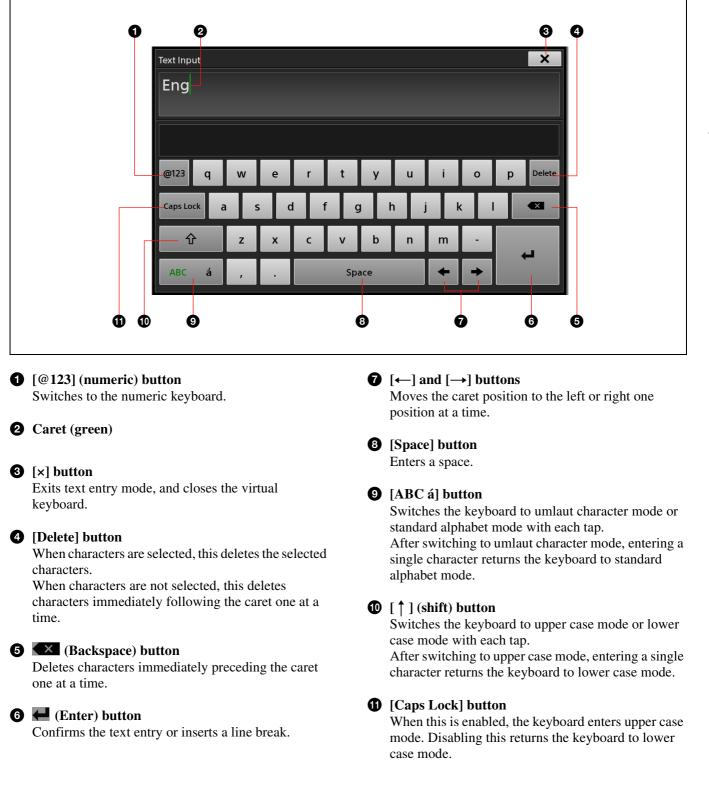
Tips

- Tapping [×] on the virtual keyboard also confirms the entry.
- When entering text for the Titler, tapping any location that exits the entry mode confirms the entry.

Using the Virtual Keyboard

The following image of the virtual keyboard is a sample. Depending on the functions you are using, the keyboard that is displayed may differ.

The keyboard that is displayed will differ depending on the input language. For details on changing the input language, see "[Input Language]" (page 84) in the "[Language]" section.



Advanced Operations

Compositing Videos Using Picture-in-Picture (PinP)

You can composite a video consisting of one video (overlay video) inserted on top of another video (background video) using the picture-in-picture effect. You can use up to two overlay videos.

Background video

Overlay video

(overlay video)

Inserted image

Background video

You can select from the following PinP patterns.

Pattern_02

Pattern_04

Pattern 06

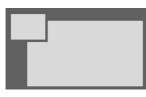
Pattern_01





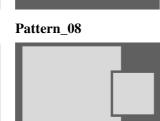


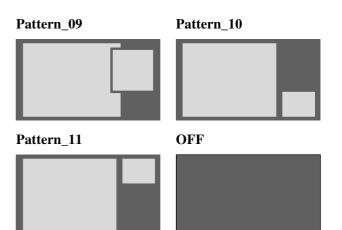
Pattern_05



Pattern_07

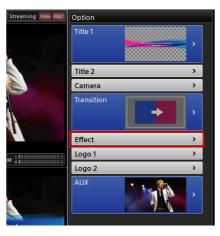






Selecting Composite Patterns

Select [Effect] in the [Option] menu.



The [Effect] list appears.

2 Select the pattern you want to use.

The video composite appears in the [NEXT] viewer according to the selected effect pattern.



3 Tap ⊃.

The [Option] menu appears again.

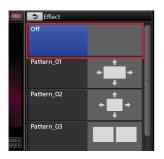
Canceling composites

Use one of the following methods.

• Select [Off] in the [Effect] list

1 Select [Off].

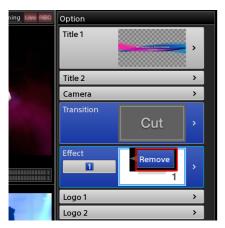
The composite overlay video disappears.



2 Tap 5

The [Option] menu appears again. The [Effect] button closes.

• Close the [Effect] button in the [Option] menu Display the context menu, and select [Remove].



The [Effect] button closes, and the composite will be canceled.



Selecting Composite Materials

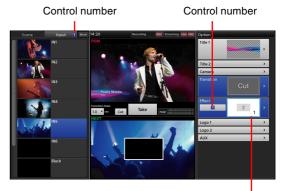
Select the videos you want to use for the composite in the [Input] list.

1 In the [Option] menu, tap the input control number button on the [Effect] button.

The control number appears in the [Option] menu and the [Input] list.

The number changes with each tap.

- [1]: Background video
- [2]: Overlay video 1
- [3]: Overlay video 2 (for patterns with two)



A light blue frame appears around the area that the selected control number represents.

2 Verify the input control number, and select the input sources you want to use for the background video and overlay videos.

The selected video appears in the [NEXT] viewer.



Тір

If you want to use still images for the overlay image, use the Media Player.

For details on Media Player operations, see "Adding the Media Player to the Lists (Add Media Player) (V1.1 Function)" (page 39).

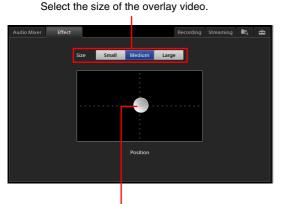
Adjusting Overlay Videos

Тір

If there are two overlay videos, their size and position cannot be adjusted.

Adjusting the size and position of an overlay video

When you select [Pattern_01] or [Pattern_02] in the [Effect] list, the [Effect] tab appears in the sub screen. Tap the [Effect] tab to display the [Effect] screen, and perform adjustments.



Drag the adjustment handle to adjust the position.

You can select from the following sizes for the overlay video.

Size	Pattern_01	Pattern_02
[Small]	360 × 270	480 × 270
[Medium]	540 × 405	720 × 405
[Large]	720 × 540	960 × 540

Inserting People onto Backgrounds (Chroma Keying)

You can use chroma keying to insert a person onto a background, for example.

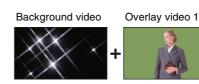
Chroma keying is a compositing technique that involves specifying regions of a single color in the overlay video (green in the following example), and inserting the regions other than the specified regions (a person in the following example) onto the background video. You can also adjust the size and position of the overlay video, and use chroma keying and PinP at the same time.

You can select from the following patterns.

Pattern_12



Composite example:



Overlay video 1 (non-green regions)

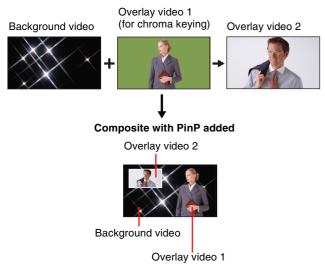


Background video

Pattern_13



Composite example:

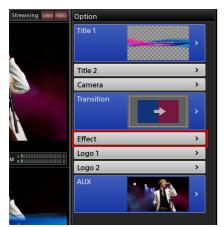


Тір

You can only add one PinP overlay video when using chroma keying.

Selecting Composite Patterns

Select [Effect] in the [Option] menu.



The [Effect] list appears.

2 Select [Pattern_12] or [Pattern_13].

The video composite appears in the [NEXT] viewer according to the selected effect pattern.



3 Tap ⊅.

The [Option] menu appears again.

Canceling composites

For details, see "Canceling composites" (page 53) of the "Compositing Videos Using Picture-in-Picture (PinP)" section.

Selecting Composite Materials

Select the videos you want to use for the composite in the [Input] list.

1 In the [Option] menu, tap the input control number button on the [Effect] button.

The control number appears in the [Option] menu and the [Input] list.

- The number changes with each tap.
- [1]: Background video
- [2]: Overlay video 1
- [3]: Overlay video 2 (for patterns with two)



A light blue frame appears around the area that the selected control number represents.

2 Verify the input control number, and select the input sources you want to use for the background video and overlay videos.

1

If you want to use still images for the overlay image, use the Media Player.

For details on adding the Media Player, see "Adding the Media Player to the Lists (Add Media Player) (V1.1 Function)" (page 39).

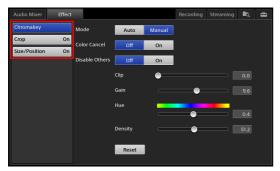
Adjusting Overlay Video 1

In the [Option] menu, tap [1] (background video) or [2] (overlay video 1) on the [Effect] button.



- **2** Display the [Effect] list.
- **3** In the sub screen, tap the [Effect] tab to display the [Effect] screen, and select the settings you want to adjust in the menu to the left.

Overlay video 1 can be adjusted, even when the [1] button (background video) is selected.



You can configure the following settings for overlay video 1.

- [Chromakey]: Specify the color that will not be composited with the background video, and adjust the compositing. The color region can be adjusted in [Auto] mode or [Manual] mode (page 56).
- [Crop]: Crop regions in overlay video 1 that you do not want included in the composite (page 57).

• [Size/Position]: Adjust the size and position of overlay video 1 (page 58).

Adjusting [Chromakey] in [Auto] mode

In [Auto] mode, you specify the color that you do not want composited with the background video in the [NEXT] viewer, and adjustments are performed automatically.

1 Tap [Auto] for [Mode].

Audio Mixer Effe	ect			Recording	Streaming	ia,	â
Chromakey	Mode	Auto	Manual				
Crop C	Color Cancel	Off	On				
Size/Position C	n		on				
		Clip	•			2.4	
		Gain			•	99.8	
		Hue		•		0.0	
		Density		(70.9	
		Reset					

[Auto] mode is enabled, and the color picker (white frame) appears in the [NEXT] viewer.

2 Tap an area that includes the color you want to remove to move the color picker.



Color picker (white frame)

Tip

In [Auto] mode, the composite of only overlay video 1 and the background video will appear in the [NEXT] viewer. Titles and logos will not be displayed.

3 If necessary, adjust the outlines and density of the image to be inserted.

Audio Mixer Effec	t			Recording	Streaming	i ą	4
Chromakey	Mode	Auto	Manual				
Crop On	Color Cancel	Off					
Size/Position On							
		Clip					
		Спр				2.4	
		Gain				99.8	
		Hue					
						0.0	
		Density				100.0	
		Reset	I				

- [Color Cancel]: Use this if remnants of the color that is supposed to be removed appear in the outlines of the inserted image (e.g., in a person's hair). When [On] is selected, the remnants of the specified color in the outlines are made colorless (usually gray in appearance) to reduce noticeability.
- [**Density**]: Drag the slider to adjust the density of the inserted image.

To restore the original [Density] value

Tapping [Reset] restores the original value.

Adjusting [Chromakey] in [Manual] mode

In [Manual] mode, adjustments are performed by configuring each setting value manually. You can also perform automatic adjustment in [Auto] mode, and then perform fine adjustments in [Manual] mode.

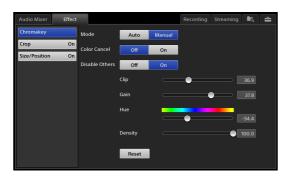
1 Tap [Manual] for [Mode].



Tip

When you switch to [Manual] mode after performing automatic adjustment in [Auto] mode, the values for [Clip], [Gain], and [Hue] that were automatically obtained are retained and displayed initially.

2 Configure each item.



For details on the [Color Cancel] setting and the [Density] setting, see step **3** (page 56) in the "Adjusting [Chromakey] in [Auto] mode" section.

[Disable Others]: Selects whether to composite titles and logos during chroma key adjustment.

- **[On]:** Do not composite. Titles and logos are not composited, making it easier to perform manual adjustments.
- [Off]: Composite. This is useful when you want to confirm the image's appearance with titles and logos composited.

Drag the slider for each item to perform adjustments. **[Clip]:** Adjust the amount of loss in the background video.

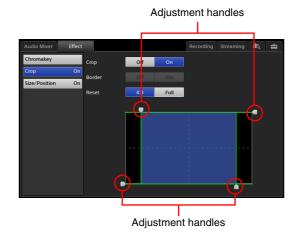
[Gain]: Adjust the sharpness of outlines. [Hue]: Adjust the hues.

To restore the original values

Tapping [Reset] restores the original value.

Configuring the [Crop] settings

Crop regions in overlay video 1 that you do not want included in the composite.



[Crop]: Selects whether to use the [Crop] function.

- [On]: Enables the [Crop] function.
- [Off]: Disables the [Crop] function.

[**Reset**]: Sets the cropped area of the image to the following values.

Item	Setting values						
	Left	Тор	Bottom	Right			
[Full]	-100	+100	-100	+100			
[4:3]	-75	+100	-100	+75			

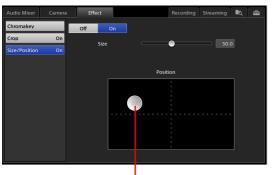
Tip

If you move the adjustment handles after enabling [Full] or [4:3] (highlighted in blue), the button will turn off (no longer highlighted) and the [Reset] setting will be disabled.

Adjustment handles: Drag each handle to specify the areas of the image to be cropped.

Configuring the [Size/Position] settings

Adjust the size and position of the composite overlay video 1.



Adjustment handle

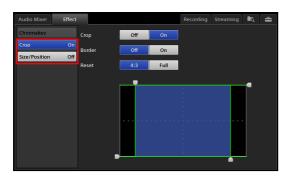
[Off] / [On]: Selects whether to use the [Size/Position] function.

- [On]: Enables the [Size/Position] function.
- [Off]: Disables the [Size/Position] function.
- [Size]: Drag the slider to adjust the size of the inserted image.

[**Position**]: Drag the adjustment handle to adjust the position.

Adjusting Overlay Video 2

- 1 In the [Option] menu, tap [3] (overlay video 2) on the [Effect] button.
- **2** Display the [Effect] list.
- **3** In the sub screen, tap the [Effect] tab to display the [Effect] screen, and select the settings you want to adjust in the menu to the left.

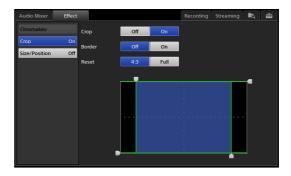


You can configure the following settings for overlay video 2.

- [Crop]: Crop regions in overlay video 2 that you do not want included in the composite (page 58).
- [Size/Position]: Adjust the size and position of overlay video 2 (page 58).

Configuring the [Crop] settings

Crop regions in overlay video 2 that you do not want included in the composite.



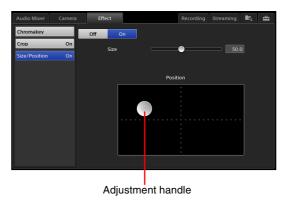
For details on the [Crop] and [Reset] settings and the adjustment handles, see "Configuring the [Crop] settings" (page 57) in the "Adjusting Overlay Video 1" section.

[**Border**]: Selects whether to add a border around the edges of the cropped image.

- [On]: Adds a white (100%) 15-pixel border.
- [Off]: A border is not added.

Configuring the [Size/Position] settings

Adjust the size and position of the composite overlay video 2.



- [Off] / [On]: Selects whether to use the [Size/Position] function.
 - [On]: Enables the [Size/Position] function.
 - [Off]: Disables the [Size/Position] function.
- [Size]: Drag the slider to adjust the size of the inserted image.
- [**Position**]: Drag the adjustment handle to adjust the position.

Creating Scenes 59

Creating Scenes

You can save the current state of the [Input] list, [Option] menu, and the transition rate to the [Scene] list as a "scene." (You can save up to 99 scenes.) Stored scenes can be recalled whenever necessary.

For details on recalling scenes, see "Recalling Scenes" (page 60).

Creating New Scenes

1 Operate the [Input] list, [Option] menu, and transition rate to create the conditions you want to save as a scene in the [NEXT] viewer.

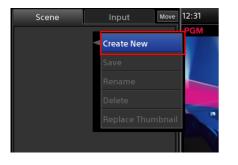


Enable or disable options.

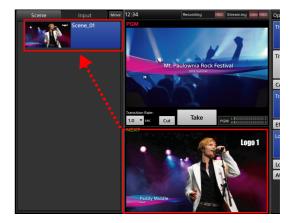
Options for which the buttons are not closed will be included in the scene.

For details on excluding an option from the scene, see "Excluding Options from Scenes" (page 60).

2 Display the context menu in the [Scene] list, and select [Create New].



A button is added to the [Scene] list. The image that was currently displayed in the [NEXT] viewer appears as the thumbnail.



Sequential numbers will be assigned automatically to the names of the created scenes ([Scene_01] to [Scene_99]). If necessary, you can rename them.

Tip

If a scene does not include "effects" and only includes the input signal, that input signal will be displayed as a movie in the thumbnail.

Renaming scenes

Display the context menu of the scene you want to rename, and select [Rename]. When the virtual keyboard appears, you can enter up to 20 alphanumeric characters.

Deleting scenes from the list

Display the context menu of the scene you want to delete, and select [Delete].

Editing Scenes

You can edit the video of a previously created scene.

- **1** In the [Scene] list, tap the scene you want to edit to display it in the [NEXT] viewer.
- **2** Edit to create the conditions you want to save to the scene.

For details on excluding an option from the scene, see "Excluding Options from Scenes" (page 60).

3 In the [Scene] list, display the context menu of the button to which you want to save the edited scene, and select [Save].



The edited scene overwrites the previous scene.

Replacing Thumbnails

When you display the context menu of a scene button and select [Replace Thumbnail], the image currently displayed in the [NEXT] viewer replaces the thumbnail image.

Excluding Options from Scenes

• Close the button in the [Option] menu

Display the context menu of the option to be excluded from the scene, and select [Remove].



The button closes, and the option will be excluded from the scene.

• When the option is [Effect] or [Camera]

You can also exclude an option using the following method.

Select [Off] in the [Effect] list or the [Camera] list.



Recalling Scenes

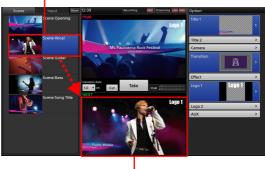
Video conditions that are saved to a scene can be selected as the program video. Previously saved scenes are displayed in the [Scene] list.

For details on saving scenes, see "Creating Scenes" (page 59).

1 Select the preset you want to recall in the [Scene] list.

The scene appears in the [NEXT] viewer.

When you select a scene...



...the selected scene appears in the [NEXT] viewer.

2 Tap the [Take] button or [Cut] button to switch the video.

When a title or logo is protected

If the **v** icon appears on a title or logo button in the [Option] menu, the content of the current title or logo is protected.

In such cases, the current title or logo configuration will be unaffected and retained, even if a scene is recalled.

For details, see " **8 •** (protect) icon" (page 33).

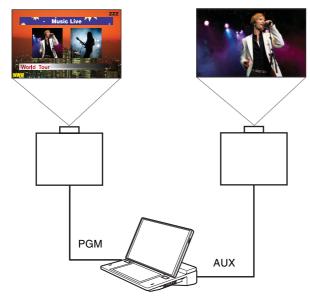
Switching the Second Output (AUX)

In addition to PGM, another video composite output (AUX) is available on this unit.

You can select the AUX output from the input sources and the PGM. In addition, you can select "clean" versions of the PGM output that exclude specific composite images.

You can use this feature when you want to output two different videos using two projectors, or when you want to output a video without titles and logos alongside the PGM output.

Usage example 1: Output separate videos via two connected projectors



Usage example 2: Remove "LIVE" displays for recording

If "LIVE" is displayed as [Logo1], output the video without the "LIVE" display for the purposes of recording. • **PGM**



• AUX



Configuring AUX Settings

Configuring [Clean] settings

To output an AUX signal that consists of the PGM output with titles and logos removed, select [Clean] in the [AUX] list. You can specify which signals to remove from the output under [AUX Clean]. Settings are configured in the [System Setup] screen.

1 Display the [System Setup] screen, and tap [Others].



The [Others] screen appears.

2 Tap [AUX], and select whether to include [Title 1], [Title 2], [Logo 1], and [Logo 2] in the clean video under [AUX Clean].

Select [On] to include an item, and select [Off] to exclude it.

Audio Mixer				Recording	Streaming	ia,	₿
🗅 Others	AUX Clean						
AUX	Title 1	On	,				
Remote Camera		=					
PGM/NEXT Position	Title 2	On	•				
Transition Rate	Logo 1	Off	•				
	Logo 2	Off	•				
	AUX Lock	Unlock	•				

Locking the AUX selection status

If you are using the AUX video for the purposes recording, for example, and you do not want to perform switching, you can lock the AUX selection status. Use one of the following methods for this operation.

 Configure the setting in the [System Setup] menu > [Others] > [AUX] screen Select [Lock] for [AUX Lock].

Audio Mixer				Recording	Streaming	۵,	-
Others	AUX Clean						
			_				
Remote Camera	Title 1	On	*				
PGM/NEXT Position	Title 2	On	•				
Transition Rate	Logo 1	Off	•				
	Logo 2	Off	•				
	AUX Lock	Unlock	•				

For details on displaying the [AUX] screen, see "Configuring [Clean] settings" (page 61).

• Configure the setting in the context menu of the [Option] menu

Display the context menu of the [AUX] button and select [Lock].



When you lock the status, the icon appears in the [Option] menu of the main screen and in the [AUX] list.

• [AUX] button in the [Option] menu



• Top of [AUX] list



To release the lock

Select [Unlock] in the [AUX] screen or in the context menu.

Outputting AUX from the PGM/AUX output connectors

Specify the connectors (RGB output, HDMI output, or SDI output connectors) you want to use for AUX output as [AUX].

Display the [System Setup] screen, and tap [Video].



The [Video Setup] screen appears.

2 Tap [Output] in the menu to the left, select the connector you want to use for AUX output in the screen that appears, and select [AUX] for [Video Source].

Audio Mixer			Recording	Streaming	R. 🖴
D Video Setup			RGB		•
Input				_	~
System Format	SDI PGM	$\odot \odot$	HDMI		
Output			SDI		
System Time Code					
	Video Source	AUX		۲	
	Audio Source	PGM	_	×	
	Video Format				

Switching the Video

Creating [AUX] lists

Create a list by adding input signals and still images to the [AUX] option list.

For details on creation, see "Creating Lists" (page 37).

Тір

[PGM] and [Clean] cannot be removed from the [AUX] list.

Switching videos

1 In the [AUX] list of the [Option] menu, select the select the material you want to use for the AUX output.

If you select [PGM], the output will be identical to the PGM output.

Advanced Operations



- **2** Tap the [Take] button or [Cut] button to switch the video.
- **3** Verify the AUX output.

The AUX output will not be displayed in the [PGM] viewer or [NEXT] viewer. Connect a monitor, for example, to the AUX output connector, and verify the output video.

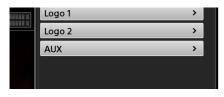
Excluding AUX outputs from scenes

If you save a scene while the AUX button is open, the AUX selection will also be saved. To exclude an AUX selection when recalling a scene, remove the AUX setting.

Display the context menu of the [AUX] button and select [Remove].



The [AUX] button will close, and the AUX selection will be excluded.



Performing Detailed Audio Adjustments

You can adjust the audio quality for each channel individually, adjust the audio embedded in input sources, and perform other detailed audio adjustments.

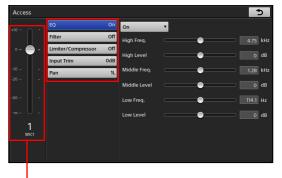
Adjusting the Audio Quality for Each Channel

1 In the [Audio Mixer] screen, tap the [Access] button for the channel (1 to 4) to which the audio you want to adjust is assigned.



The [Access] screen for the selected channel appears.

2 Tap an item in the menu to the left, and perform adjustments in the screen that appears.



You can also adjust the level of the selected channel here.

You can configure the following settings in the [Access] screen.

- **[EQ]:** Adjust the audio quality by using the equalizer function to specify the frequencies and levels of the high, middle, and low audio ranges (page 64).
- **[Filter]:** Use the filter function to cut high frequencies and low frequencies (page 64).
- [Limiter/Compressor]: When inputting audio with significant level differences, configure the limiter and compressor (page 64).

[**Input Trim**]: Adjust the audio input signal level (page 65).

[**Pan**]: Adjust the left and right balance of the audio (page 65).

3 When you finish configuration, tap **.**.

The [Access] screen appears again.

The following sections describe the settings in the [Access] screen in detail.

[EQ]

Adjust the audio quality by using the equalizer function to specify the frequencies of the high, middle, and low audio ranges.

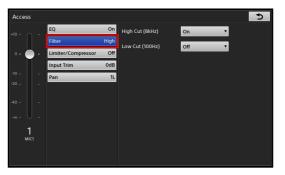
Configure each setting after setting the equalizer function to [On].

+10 - - EQ On V 0 - - - Limiter/Compressor Freq. Imput Trim Odd 20 - - - Limiter/Compressor Off High Level Imput Trim Odd	4.75 kHz
0 Limiter/Compressor Off Input Trim OdB	
0 Limiter/Compressor Off Input Trim OdB	4.75 kHz
Input Trim OdB	
	o dB
Pan 1L	1.28 kHz
- 20 - Middle Level	0 dB
40 Low Freq.	114.1 Hz
Low Level	o db
1	
MICI	

- **Equalizer:** The following settings become available when this is set to [On].
- [High Freq.]: Adjust the central frequency of the high-frequency band within a range of 1.3 kHz to 17.4 kHz.
- [**High Level**]: Adjust the level of the high-frequency band within a range of -15 dB to +15 dB.
- [Middle Freq.]: Adjust the central frequency of the middle-frequency band within a range of 260 Hz to 6.4 kHz.
- [Middle Level]: Adjust the level of the middle-frequency band within a range of -15 dB to +15 dB.
- [Low Freq.]: Adjust the central frequency of the lowfrequency band within a range of 31 Hz to 420 Hz.
- [Low Level]: Adjust the level of the low-frequency band within a range of -15 dB to +15 dB.

[Filter]

Use the filter function to cut high frequencies and low frequencies. This is useful for minimizing noise.



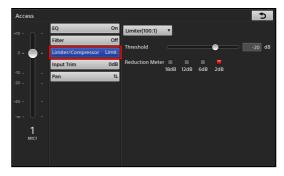
[High Cut (8kHz)]: When [On] is selected, high frequencies (8 kHz) are cut at 12 dB/Oct.

[Low Cut (100Hz)]: When [On] is selected, low frequencies (100 Hz) are cut at 12 dB/Oct.

[Limiter/Compressor]

Use the limiter and compressor when inputting audio with significant level differences.

- The limiter restricts the peak components of an audio signal with significant level differences. It also compresses sound that exceeds a certain threshold volume so that the threshold level is not exceeded, thus preventing excess outputs.
- The compressor gently compresses the level of audio that is at or above the threshold level, thereby smoothing out an audio signal with significant level differences.



Limiter/compressor: Select the audio compression method.

- [Limiter (100:1)]: Enable the limiter (100:1).
- [Compressor (2:1)]: Enable the compressor (2:1).
- [Off]: Disables both.

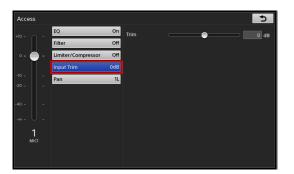
[Threshold]: Adjust the level (threshold) at which the limiter or compressor takes effect within a range of -60 dB to 0 dB.

[**Reduction Meter]:** Indicates the amount of dB gain reduction occurring on the input signal (i.e., the current compression effect).

Advanced Operations

[Input Trim]

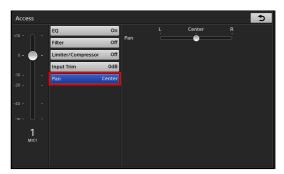
Adjust the input signal level so that the proper input level is obtained when the fader is set to the 0 dB position.



[**Trim**]: Adjust the input level within a range of -15 dB to +15 dB.

[Pan]

Specify the stereo positioning for microphone inputs that consist predominantly of monaural audio.



[Pan]: Adjust the left and right audio balance within a range of 15L to Center to 15R.

Switching the Monitored Audio

Audio outputs from the unit (PGM output and MIX output) can be monitored via the HEADPHONES jack or the internal speakers.

Tapping the [PGM]/[MIX] button in the [Audio Mixer] screen switches between PGM output and MIX output.



Each tap switches between [PGM] and [MIX].

- **PGM:** Audio output from PGM connectors L and R. When [PGM] is displayed, the audio level meter will also be switched to PGM.
- **MIX:** Audio output from MIX connectors L and R. When [MIX] is displayed, the audio level meter will also be switched to MIX.

Adjusting MIX OUT Output Levels

Adjust the L/R output level for MIX OUT within a range of $-\infty$ to +10 dB using the MIX OUT fader in the [Audio Mixer] screen.



Adjusting the Embedded Audio of Input Sources

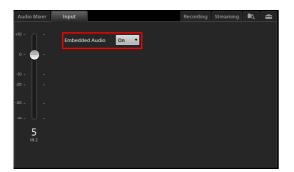
Embedded audio that is included in the input source selected in the [Input] list is automatically assigned to channel fader 5. If an input source in the [Input] list includes audio, the audio level can be adjusted beforehand.

Using embedded audio

1 In the [Input] list of the main screen, select an input source that includes embedded audio.

The [Input] tab appears in the sub screen.

2 Tap the [Input] tab to display the [Input] screen, and set [Embedded Audio] to [On].



To adjust the audio

If a movie includes embedded audio, drag the slider to adjust the audio level.

Tips

- Embedded audio will be assigned to channel fader 5 automatically.
- When the [Input] tab is displayed, the unit enters audio preview mode automatically, allowing you to listen to audio via the HEADPHONES jack or the internal speakers. Audio preview does not affect the PGM output or MIX output.

When adjusting audio levels beforehand

Adjust the audio level using the channel fader in the [Input] screen.

The audio level is saved for each input source individually.

Audio Mixer	Input		Recording	Streaming	in the second se	â
+10	Embedded Audio	On 🔻				
o- 🖨 -						
-10						
-40						
···· U _						
5 N 2						

When mixing embedded audio after [Take]

Adjust the audio level using channel fader 5 in the [Audio Mixer] screen.

If embedded audio is output due to a [Take] operation, the embedded audio is automatically assigned to channel fader 5.



Тір

If channel fader 5 is being used for both input and the Media Player, the Media Player will have priority.

Recording Outputs from the Unit to the Internal Storage

Program outputs, AUX outputs, and audio outputs (PGM and MIX) can be recorded onto the unit's internal storage in high-quality picture and audio. The recorded files can be edited using various nonlinear editors.

Note

Data compatibility with all nonlinear editing devices is not guaranteed.

For details on the formats of the files recorded by this unit, see "Recording format" (page 99).

For further details, contact your dealer or local Sony representative.

Configuring Recording Settings

Settings related to recording are configured in the [Recording] screen of the sub screen.

You can display the [Recording] screen by tapping the recording status that appears at the top center of the main screen.



Configure each setting in the [Recording] screen.



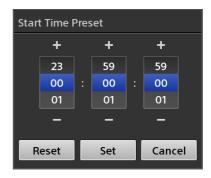
- [Video Source]: Select [PGM] or [AUX] as the video you want to record.
- [Audio Source]: Select [PGM] or [MIX] as the audio you want to record.
- [Bit Rate]: This is fixed at 35 Mbps (HQ Mode).
- [**Remaining Time]:** Displays the remaining recording time in minutes.

When the remaining time reaches 10 minutes, the time is displayed in red.

[File Name]: Enter the name of the file to be recorded using up to 20 alphanumeric characters.

You cannot overwrite files using the same name.

- [Time Code Mode]: Select the timecode to use to start recording.
 - [System Time Code]: Select this to use the time specified in the [System Setup] menu > [Date/ Time].
 - [Start Time Preset]: Select this to start recording from a specific timecode. When [Start Time Preset] is selected, tap the timecode display field, and specify the timecode in the [Start Time Preset] dialog box.



[**Display Mode**]: Select whether to display the timecode or the recording time in the time display when recording is in progress.

Select [Time Code] to display the timecode, or select [Duration] to display the recording time.

Starting and Stopping Recording

Starting recording

Tap the [REC] button in the [Recording] screen.

Audio Mixer	Input	Recording Strea	ming 🔩 🚘
Video Source	AUX 🔻	Time Code Mode	
Audio Source	PGM 🔻	System Time Code	
Bit Rate	35Mbps(HQ Mode)	Start Time Preset	00:00:00
Remaining Time File Name	78 min Clip01	Display Mode Time Code Du	ration
			REC

Recording starts.

When recording starts, the [REC] button changes to [Stop], and the [REC] status displayed at the top of the main screen lights red.

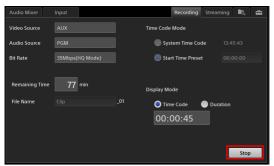
Recording Remain REC Streaming Live REC	Option
and the second	Title 1

Recording will stop automatically in the following cases.

- When the remaining recording time reaches 0 minutes.
- When the recording time of a single file reaches 6 hours.

Stopping recording

Tap the [Stop] button.



A confirmation screen appears. When you tap [Yes], recording stops and the [REC] status turns off. The [Stop] button changes to [REC], and the [REC] status displayed at the top of the main screen turns off.

Streaming

Program video can be encoded on the unit and streamed live using an external server or saved to the unit's internal storage. Saved data can be exported to USB storage devices and other external drives as VOD (Video On Demand) files, and then uploaded to video-sharing websites via a computer and played back.

Preparation

This unit includes an encoding function for streaming data, but it does not include a server function. Therefore, you must connect it to an external server. Consult the streaming server administrator to acquire the information required for connecting to the external server. The URL destination for connection is required. The stream key and other information will be provided for login.

This section describes hot to connect to Ustream as an example.

- 1 Connect to the Ustream website using a separate computer, and create a broadcast.
- **2** Acquire the URL and stream key information.
 - When importing the information to the unit, download the XML file and copy it to a USB storage device, for example, and connect the device to a USB port on the unit.
 - When entering the information manually, write down the information.

Тір

As of July 2013, connection to the following servers has been verified.

• Ustream

Configuring Network Settings

Configure the unit's network.

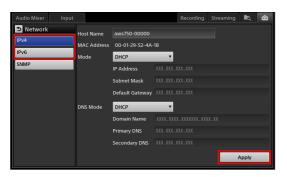
1 Connect a network cable to the LAN 1 connector on the right side of the unit, and connect to a network.

2 Tap **a** in the sub screen to display the [System Setup] screen, and tap [Network].



The [Network] screen appears.

3 Select [IPv4] or [IPv6] according to your operating environment, configure the necessary settings, and then tap [Apply].



For details on setting items, see "[Network] Screen" (page 84).

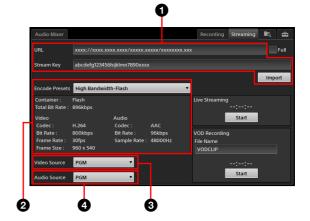
Configuring Streaming Settings

Settings related to streaming are configured in the [Streaming] screen of the sub screen.

You can display the [Streaming] screen by tapping the streaming status that appears at the top center of the main screen.

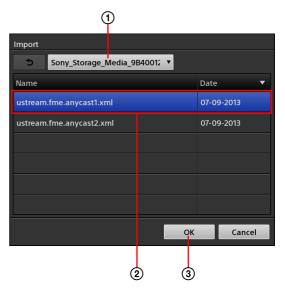


Configure each setting in the [Streaming] screen.



([URL] and [Stream Key]

Enter the URL and stream key for the broadcast. When importing an XML file downloaded from Ustream, tap [Import] and import the XML file from the [Import] dialog box that appears.



- ① Select the external drive on which the XML file is stored.
- ② Select the XML file you want to import.
- ③ Tap [OK] to close the dialog box. The XML file is imported, and the URL and stream key are automatically entered.

Tips

- Use [Full] when entering URL information in a format that includes information such as the stream key. It is not used under normal circumstances.
- This unit supports XML files of the format currently provided by Ustream.

2 [Encode Presets]

Select a settings preset (encoding preset). When you select an encoding preset, its settings appear in the area below it.

- [High Bandwidth-Flash]: Flash settings for the high bandwidth.
- [Medium Bandwidth-Flash]: Flash settings for the middle bandwidth.
- [Low Bandwidth-Flash]: Flash settings for the low bandwidth.

3 [Video Source]

Select [PGM] or [AUX] as the video you want to encode with this unit.

4 [Audio Source]

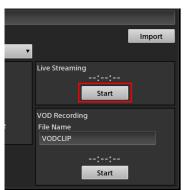
Select [PGM] or [MIX] as the audio you want to encode with this unit.

Starting and Stopping Live Streaming Transmissions

Perform controls in the [Live Streaming] area at the bottom right of the [Streaming] screen.

Starting transmission

Tap the [Start] button.



Streaming transmission will start after connection with the streaming server is established.

During transmission, the [Start] button changes to [Stop] and the transmission time appears (hh:mm:ss). In addition, the [Live] streaming status at the top of the main screen lights red, and an indicator that displays the current network throughput lights.



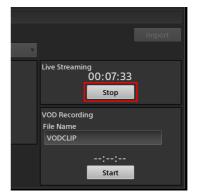
Throughput

Streaming will stop automatically in the following cases.

• When connection with the streaming server cannot be detected for 10 seconds

Stopping transmission

Tap the [Stop] button.



A confirmation screen appears. When you tap [Yes], transmission stops and the [Live] streaming status and throughput indicator turn off.

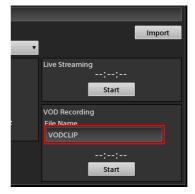
Recording VOD Files

You can record a selected video source and audio source to the unit's internal storage as a VOD file.

For details on file formats, see "VOD recording format" (page 99).

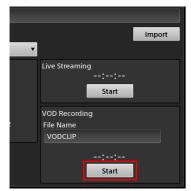
Naming recorded VOD files

Tap the [File Name] field in the [VOD Recording] area at the bottom right of the [Streaming] screen, and enter up to 20 alphanumeric characters for the file name. You cannot overwrite files using the same name.



Starting recording

Tap the [Start] button.



Recording starts.

During recording, the [Start] button changes to [Stop] and the recording time appears (hh:mm:ss). In addition, the [REC] streaming status at the top of the main screen lights red.

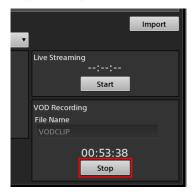


Recording will stop automatically in the following cases. • When the remaining recording time reaches 0

• When the recording time reaches 6 hours

Stopping recording

Tap the [Stop] button.



A confirmation screen appears. When you tap [Yes], recording stops and the [REC] streaming status turns off.

Using External Devices for Video Switching and Other Operations

You can connect external devices, such as keyboards and X-keys, to the unit's USB port and use them to perform certain main screen operations, such as video switching.

Keyboard Operations

You can perform the following operations.

Item	Кеу	Description
Scene/ Input	Tab	Switch between the [Scene] list and [Input] list.
Take	Space	Perform a "take." "Takes" will not be performed if the Space key is pressed during text entry.
Button 1	F1	Select the first button of the buttons displayed in the [Scene] list or [Input] list.
Button 2	F2	Select the second button of the buttons displayed in the [Scene] list or [Input] list.
Button 3	F3	Select the third button of the buttons displayed in the [Scene] list or [Input] list.
Button 4	F4	Select the fourth button of the buttons displayed in the [Scene] list or [Input] list.
Button 5	F5	Select the fifth button of the buttons displayed in the [Scene] list or [Input] list.
Button 6	F6	Select the sixth button of the buttons displayed in the [Scene] list or [Input] list.
Button 7	F7	Select the seventh button of the buttons displayed in the [Scene] list or [Input] list.
Page Up	Page Up	Display seven buttons of the previous page in the [Scene] list or [Input] list.
Page Down	Page Down	Display seven buttons of the next page in the [Scene] list or [Input] list.
Home	Home	Display seven buttons of the first page of the [Scene] list or [Input] list.
End	End	Display seven buttons of the last page of the [Scene] list or [Input] list.

Item	Кеу	Description
Go to Option Menu	F8	Display the [Option] menu. When one of the [Option] menu's lists is displayed, pressing this key returns to the [Option] menu.
Title/Logo On/Off ¹⁾	F9	Enables/disables [Title 1].
	F10	Enables/disables [Title 2].
	F11	Enables/disables [Logo 1].
	F12	Enables/disables [Logo 2].

1) When the [Option] menu is displayed, all of keys F9 to F12 are enabled. When any of the lists are displayed, only the corresponding key is enabled.

X-keys Operations

X-keys is a device that allows you to customize assignment of the ASCII codes that are sent when a button is pressed.

You can assign the key operations described in

"Keyboard Operations" (page 71) to the keys on X-keys. This section depicts key assignments on a 24-key model as an example.

For details on assigning keys, refer to the X-keys instruction manual.

Example:

Option Menu (F8)		Scene/Input (Tab)	Button 1 (F1)	
Title 1 On/Off (F9)		Home	Button 2 (F2)	
Title 2 On/Off (F10)		Page Up	Button 3 (F3)	
Logo 1 On/Off (F11)		Page Down	Button 4 (F4)	
Logo 2 On/Off (F12)		End	Button 5 (F5)	
Take (Space)		Button 7 (F7)	Button 6 (F6)	

Creating Titles (Titler)

This unit includes a "Titler" function for creating title materials via simple operations.

Titles created using the Titler can be registered to the material lists and inserted into videos whenever necessary. The text in titles created with the Titler can also be changed easily.

Тір

Operations performed in the Titler are saved automatically. You do not have to save them manually.

Starting and Quitting the Titler

You can start the Titler using one of the following methods.

- Start from the [File Manager] screen (page 72)
- Start from the [Input] list or the [Option] menu > [Title] list in the main screen (page 39)

You can also start the Titler from a previously created title in any list, and edit text. For details, see "Editing Text Created in the Titler (Edit)" (page 40).

Starting from the [File Manager] screen

Starting the Titler from the File Manager is useful when you want to create multiple titles in advance.

Tap at the top right of the sub screen.

The [File Manager] screen appears.

2 Tap [Go to Titler] at the bottom left of the screen.

Audio Mixer						Rei	cording	Stream	ming		₿
Explorer Im	port Exp	ort									
Still	Name						Date			Size	
Movie	Pattern_11N					2013-06-25 11:48			1.4MB		
Logo	Pattern_08N				2013-06-25 14:22		1.3MB				
Recording	Rock Festival				2013-06-26 12:21						
Streaming	📄 🔺 🖿 Conc	ert					2013-0	5-28 09	:42		
Project							2013-0	5-28 09		0.6MB	
02							2013-06-28 09:39			0.6MB	
1920 x 1080	Remain: 21.6GB										
Go to Titler	Format Driv										

[Go to Titler]

The Titler starts, and the [Folder] dialog box for selecting the folder in which to save the file appears. The virtual keyboard that allows you to enter text appears in the sub screen.

Creating Titles (Titler) 73

3 To create a new folder, tap [New Folder].

An "Untitled" folder is added to the bottom of the list. To create the title in an existing folder, select the folder and tap [Open]. In this case, the Titler starts without going to temple selection.

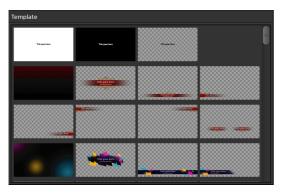
Folder		
Name 🔺	Date	
🕨 🛅 Concert	2013-06-28 09:42	
> 🛅 Concert2	2013-07-02 15:01	
Rock Festival	2013-06-26 12:21	
Duplicate New Folder		en Cancel

4 Rename the new folder, select this folder, and then tap [Open].

Name	Date	
🕨 🛅 Concert	2013-06-28 09:42	
🕨 🛅 Concert2	2013-07-02 15:01	
🕨 🛅 Rock Festival	2013-06-26 12:21	
Untitled	2013-07-03 10:25	

The [Template] dialog box appears.

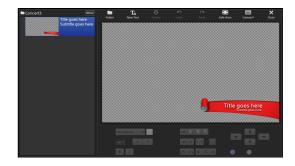
5 Select the template you want to use.



The [Titler] screen appears using the selected template.

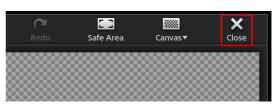
Тір

The graphic of the template cannot be edited.



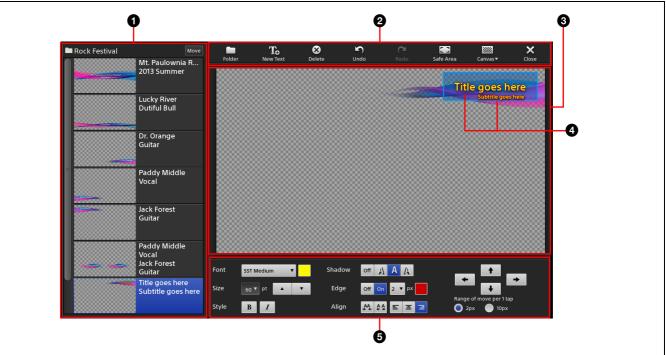
Quitting the Titler

Tap [Close] at the top right of the [Titler] screen.



The [Titler] screen closes, and the main screen appears again.

Using the [Titler] Screen



0

File list

Displays a list of titles stored in the currently opened folder.

The folder name appears at the top left.

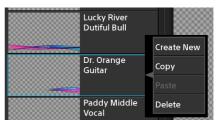


A thumbnail and the text objects included in the file appear on each button.

Thumbnail



You can also display the context menu for the button to perform file operations.



[Create New]: Create a new title file (page 75).[Copy]: Copy the selected file.[Paste]: Insert a copied file below the selected button.[Delete]: Delete the selected file.

You can change the sort order of the list. For details, see "Changing the Sort Order of the Lists" (page 41).

2 Tool buttons

[Folder]: Display the [Folder] dialog box. Folders can only be selected when the Titler was started via [Go to Titler] from the [File Manager] screen.

[New Text]: Add up to four text objects.

[Delete]: Delete the selected text object.

[Undo]: Undo the previous operation.

[Redo]: Redo an undone operation.

[Safe Area]: Display a 16:9 safe area (90% zone and 80% zone) as a dotted line in the 3 editing area. Each tap of the button toggles its display.

[Canvas]: Select the pattern to display as the background canvas of the editing area (black, white, or checkered).

The pattern selected here will only appear in the editing area. It will not be used as the background of the title.

[Close]: Quit the Titler.

3 Editing area (page 75)

Edit the title in this area.

4 Text objects

These are the text objects that you entered. You can create up to four text objects for a single file. You can enter up to 300 characters in a single object and insert line breaks.

5 Text properties area

You can configure text object settings, such as font, size, and color.

[Font]: Select the font type.

Preset fonts and fonts imported using the File Manager appear in the drop-down list.

Text color: Tap the [Font] color box to display the color palette, and select the text color.



[Size]: Select the text size.

You can double-tap the field to enter a value, or tap • or • to change the value.

[Style]: Specify a style for the text.

Each tap of the bold or italic button enables or disables each style.

[Shadow]: Add a shadow effect to the text.

[Edge]: Add edges around the text. You can also specify the thickness and color of the edges.

- The edge thickness can specified within a range of 1 pixel to 10 pixels.
- Tapping the [Edge] color box displays the color palette.
- [Align]: Adjust the space between each character. Tapping A narrows the space, and tapping 44 widens it.
- ■ : Select from left-align (■), centered
 (■), and right-align (■) for the text alignment.

[Range of move per 1 tap]: Specify the amount of movement per tap.

Creating Titles

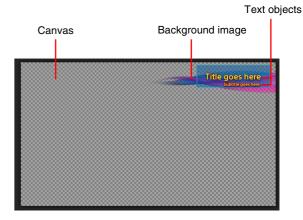
1 Display the context menu in the file list, and select [Create New].

The [Template] dialog box appears.

2 Select the template you want to use.

The selected template appears in the editing area.

3 Edit the text objects.



You can perform the following operations for text objects.

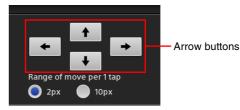
For details on operations in the text properties area, see "Using the [Titler] Screen" (page 74).

· Move text objects

When you tap a text object, it enters a selected state and a frame appears around the selected object. Drag the text object, or use the arrow buttons in the text properties area to move the object.



You can drag the object to the desired position, and perform fine adjustments using the arrow buttons.



• Enter text

When you tap a text object, text entry mode is enabled and a dotted line appears around the



• Enter text (select all)

When you double-tap a text object, text entry mode is enabled in a select all state.



• Enter text (partial select)

When you tap and hold on text, text entry mode is enabled in a partial select state. You can drag the handles to adjust the selection range.



Handles

• Quit text entry

Tap outside of the text area. The \longleftarrow (Enter) button on the virtual keyboard does not confirm entries, but instead inserts a line break.

• Deselect a text object

Tap outside of the text area.

Managing Files (File Manager)

You can manage the following types of file stored on the unit's internal storage using the File Manager.

- Still image files imported from external drives
- Files created with the Titler
- Movie files imported from external drives (V1.1 function)
- Logos
- Files recorded using the [Recording] function or [Streaming] function
- Project files
- Fonts

Displaying the [File Manager] Screen

Tap at the top right of the sub screen to display the [File Manager] screen.

Audio Mixer		R	ecording	Streaming	ta, 🖆
Explorer	Import Export				
Still	Name		Date		Size
Movie	Pattern_11N		2013-06	5-25 11:48	1.4MB
Logo	Pattern_08N		2013-06	5-25 14:22	1.3MB
Recording	📕 🕨 🕨 Rock Fe	stival	2013-06	5-26 12:21	
Streaming	📃 📃 🔺 🖿 Concert		2013-06	5-28 09:42	
Project	01		2013-06	5-28 09:39	0.6MB
	02		2013-06	5-28 09:39	0.6MB
1920 x 1080	Remain: 21.6GB 💻				
Go to Titler	Format Drive				

Using the [File Manager] Screen

Audio Mixer		Recor	ding Streaming	L Q
Explorer I	mport Export			
Still	Name	D	ate 🔺	Size
Movie	Pattern_08N	2	013-06-25 14:22	1.3MB
Logo	✓ Title1	2	013-07-03 11:47	0.0MB
Recording	📄 🕨 🖿 Concert	2	013-06-28 09:42	
Streaming	🔲 🖌 🖿 Concert2	2	013-07-02 15:01	
Project	01	2	013-07-01 14:11	0.7MB
	02	2	013-07-02 10:20	0.0MB
1920 x 1080	Remain: 21.9GB			Delete
Go to Titler	Format Drive			

1 Categories

Files stored on the internal storage are divided into the following categories. When you select a category, a list of files appears in the **6** file list.

- [Still]: Includes still image files imported to the internal storage. Materials created using the Titler are also included in this category.
- [Movie]: Includes movie files imported to the internal storage.¹⁾
- **[Logo]:** Includes logo files (still image files) imported to the internal storage. Files included in this category are added to the [Logo] list.
- [**Recording**]: Includes files recorded using the [Recording] function.
- [Streaming]: Includes files recorded using the [Streaming] function.
- [**Project**]: Includes project files saved in [Project] of the [System Setup] menu.

1) Tapping this in V1.0 will not have an effect.

2 [Explorer] tab

Allows you to perform operations, such as displaying file lists, deleting, and renaming.

3 [Import] tab

Allows you to import files stored on USB storage devices and other external drives to the unit's internal storage (page 78).

[Export] tab []

Allows you to export files stored on the unit's internal storage to external drives (page 80).

5 File list

Displays a list of folders and files that belong to the category selected in the **1** categories area. When you select a folder, the files stored in that folder are displayed.

The names, update dates, and sizes of files are displayed in the list.

To sort the list, tap the title area ([Name], [Date], or [Size]), and tap \blacktriangle or \blacktriangledown . The button switches between ascending (\blacktriangle) and descending (\blacktriangledown) order with each tap.

6 [Delete] button

Deletes the files for which the checkboxes are selected in the list.

7 [Remain] indicator

Displays the remaining space on the internal storage.

8 [Format Drive] button

Formats the external drive (page 80).

[Go to Titler] button

Starts the Titler.

For details on the Titler, see "Creating Titles (Titler)" (page 72).

1 File information

Displays the thumbnail and resolution of the file selected in the list.

Renaming Files

You can rename files stored on the unit's internal storage.

Тір

You cannot rename files created using the Titler.

- **1** Tap the [Explorer] tab to display the [Explorer] screen.
- **2** Select the row of the file you want to rename.

Audio Mixer		Recording	Streaming 🔩 🖆
Explorer	Import Export		
Still	Name	Date	▲ Size
Movie	Pattern_08N	2013-06	5-25 14:22 1.3MB
Logo	Title1	2013-07	-03 11:47 0.0MB
Recording	📄 🕨 🖿 Concert	2013-06	5-28 09:42
Streaming	Concert2	2013-07	-02 15:01
Project	01	2013-07	7-01 14:11 0.7MB
	02	2013-07	-02 10:20 0.0MB
1920 x 1080	Remain: 21.6GB		
Go to Title	r Format Drive		

3 Tap the [Name] field of the selected row again.

Editing mode is enabled, and the virtual keyboard appears in the sub screen.

4 Enter the new file name, and tap the \blacksquare button to confirm the entry.

Rename										×
Title1										
@123 q	w	е	r	t	у	u	i	0	р	Delete
Caps Lock a		5 C		f		n j	i P			
٠	z	x	с	v	b	n	m	-		
	,	•		Spi	ace		+	+		9

The virtual keyboard closes, and the file is renamed.

Importing Files

You can import still image and movie files to the unit's internal storage for as materials.

You can rename imported files. For details, see "Renaming Files" (page 78).

Preparing files

Prepare the following files with the following specifications based on their intended purpose.

For still images

Recommended size	1920 × 1080
File format	.tiff, .tif, .png, .jpeg, .jpg, .jpe (alpha channels supported)
File name length	31 characters or less (including extension)

For movies¹⁾

File format	.mxf (MPEG HD422, LPCM) ²⁾ .mxf (MPEG HD, LPCM) ²⁾ .f4v (H.264, AAC) ³⁾ .mov (MPEG4, AAC) ³⁾ .mov (H.264, AAC) ³⁾ .mp4 (H.264, AAC or LPCM) ³⁾ .m2ts (H.264, AC-3 or LPCM) ³⁾ 2) 50/59.94i 3) Up to 1920 × 1080, up to 30p
File name length	31 characters or less (including extension)

1) File formats may be converted in some cases.

For logos

Recommended size	320 × 320
File format	.tiff, .tif, .png, .jpeg, .jpg, .jpe (alpha channels supported)
File name length	31 characters or less (including extension)

For fonts

Extension	.ttf, .pfb, .otf
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Tip

Still images, movies, and logos can be imported as long as they are 1920×1080 or less in size, but they may be resized and repositioned.

Advanced Operations

• Still images and videos

- Files taller than 16:9: Aspect ratios will be retained with black bars added to the left and right.



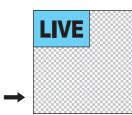
 Files wider than 16:9: Aspect ratios will be retained with the image enlarged vertically and the left and right sides cropped.



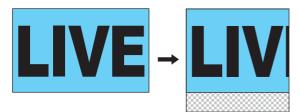


• Logos

- Files smaller than 320×320 : Images are positioned at the top left with the remaining space transparent.



 Files larger than 320 × 320: Images are positioned within a 320 × 320 space at the top left with the areas that extend beyond 320 cropped.



Importing files

Copy the files you want to import to an external drive beforehand.

- **1** Tap the [Import] tab to display the [Import] screen.
- **2** Select the category of the file you want to import.

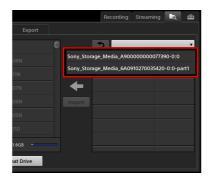
[Still]: Still images used in the [Input] list or [Title] list.

[Movie]: Movies used in the Media Player. [Logo]: Still images used in the [Logo] list.

[Font]: Fonts used in the Titler.



- **3** Connect the external drive on which the file you want to import is stored to a USB port.
- **4** Tap \checkmark in the list to the right, and select the external drive from which to import in the list that appears.



A list of files stored on the external drive appears.

5 Select the checkboxes of the files and folders you want to import, and tap [Import].

You can select multiple files.



The files are imported.



Even if you import a folder, the files within that folder will be imported to this unit without the folder.

Exporting Files

You can copy recorded files and VOD files stored on the unit's internal storage to external drives. If necessary, format the external drives beforehand.

For details on formatting, see "Formatting External Drives" (page 80).

1

Tap the [Export] tab to display the [Export] screen.

2 Select the category of the file you want to export, and select the checkboxes of the files you want to export.

You can select multiple files.

Explorer I	mport Export			
Recording	Clip_06.mxf		5	
Streaming	Clip_05.mxf		Name	Date
	Clip_04.mxf			
	Clip_03.mxf	➡		
	Clip_02.mxf			
Max.	Clip_01.mxf			
	Clip.mxf			
1920 x 1080	Total: 644.5 MB			

- **3** Connect the external drive to a USB port.
- 4 Tap ▼ in the list to the right, select the external drive to which to export in the list that appears, and then tap [Export].

Explorer	Import E	xport					
Recording	Clip_06.n	٦xf	Sony Stor	age Media A900	000000773	90-0-0	v
Streaming	Clip_05.n			age_Media_6A09			rt1
	Clip_03.n		-				
	Clip_02.n		Export				
	Clip_01.m	ixt					
1920 x 1080	Total : 644.5 MB						
Go to Titler	Format D	rive					

The files are exported.

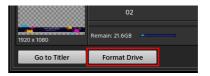
Formatting External Drives

You can format an external drive if necessary.

Tips

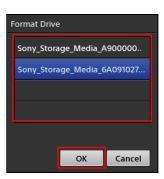
- This unit supports FAT32.
- When exporting files that exceed 4 GB in size, format the drive on a computer using the exFAT file system.

- 1 Connect the USB storage device or external drive you want to format to a USB port.
- **2** Tap [Format Drive] at the bottom left of the [File Manager] screen.



The [Format Drive] dialog box appears.

3 Select the target external drive, and tap [OK].



The external drive is formatted.

Saving and Loading Settings

You can save the current setting configurations to the internal storage as files (up to 99). These files are referred to as "projects."

Тір

Some conditions, such as tab selection states, are not saved.

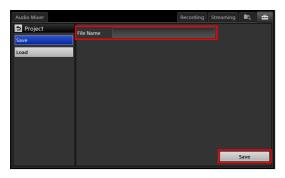
Saving Settings

Display the [System Setup] screen, and tap [Project].



The [Project] screen appears.

- **2** Tap [Save] to display the [Save] screen.
- **3** Enter up to 20 alphanumeric characters for the file name, and tap [Save].



The project is saved.

Loading Settings

Select the project file you want to load in the [Load] screen of [Project], and tap [Load].

Audio Mixer		Recordi	ng Streaming	R. 🖆
Project	Name		Date	_
Save	project1.a2pj		2013-07-03	
Load	project2.a2pj		2013-07-03	
	project3.a2pj	project3.a2pj		
	project4.a2pj		2013-07-03	
	project5.a2pj		2013-07-03	
	project6.a2pj		2013-07-03	
	project7.a2pj	project7.a2pj		
	project8.a2pj		2013-07-03	
	Default			Load

The project file is loaded onto the unit.

Restoring Default Settings

To reset list and [System Setup] conditions to their default conditions, tap [Default] in the [Load] screen.

	Π	n
		μ

Even if you restore the default settings, files imported to the internal storage, still images created with the Titler, and other files will be retained.

Settings

Remote Camera Connections and Settings

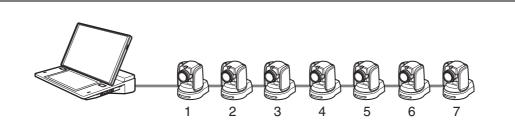
You can connect up to seven VISCA-compatible cameras to the unit via a daisy chain connection and control them.

Configure the address number for each camera, and use the address numbers to specify which cameras to control.

For details configuring address numbers, refer to the instruction manual for the remote camera.

Supported models

- Sony remote cameras
- BRC-H700
- BRC-H900
- BRC-Z330
- BRC-Z700



The above is an example of when camera address configuration is set to [Auto].

For details on pin assignments and connections for the VISCA connector, see "Connector Pin Assignments" (page 100).

Тір

Images from up to six cameras can be input at the same time.

Assigning Remote Cameras

After making each camera selectable in the [Input] list of the main screen, configure settings to enable remote control of the remote cameras.

Configure the settings while the remote cameras are connected to the unit.

- Connect the remote camera to the unit.
- 2 Select the input source of the camera in the [Input] list of the main screen, and verify the video.
- **3** Display the [System Setup] screen in the sub screen, and tap [Video].

The [Video Setup] screen appears.

4 Tap [Input] to display the [Input] screen.

5 Configure video input settings for the connected remote camera.

For details on the video input signal settings, see "[Input]" (page 86).

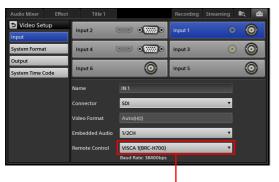
6 Select the connected remote camera's address (1 to 7) for each connector in [Remote Control].



Tip

If the camera model does not appear in the [Remote Control] drop-down list for an input connector to which a camera is assigned, reset the camera to its default settings.

For details on operations, see "Resetting remote cameras" (page 83).



Cameras for which remote control is enabled appear as "address (model name)."

Linking the power control of the unit and remote cameras

You can link the power control of the unit (power on/off) to the power control of the remote cameras.

- **1** Display the [System Setup] screen in the sub screen, and tap [Others].
- **2** Tap [Remote Camera] to display the [Remote Camera] screen.
- **3** To link power control, select [Enable] for [Auto Power Control].

Audio Mixer Effect	Title 1 Recording Streaming 🔩 🚘
Others	Auto Power Control Enable 🔻
Remote Camera	Reset Camera
PGM/NEXT Position	Reset Callera
Transition Rate	

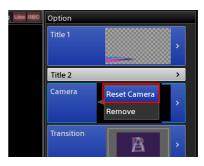
Resetting remote cameras

Reset the remote cameras to default settings using the following methods when you want to reconnect remote cameras.

• Tap [Reset Camera] in the [Remote Camera] screen



• Display the [Camera] context menu in the [Option] menu, and select [Reset Camera]



When the reset the cameras, connection will be reestablished for all cameras connected for remote control. Depending on the camera model, the pan and tilt may return to their default positions.

Configuring System Settings ([System Setup] menu)

You can configure the following system settings in the [System Setup] menu.

Screen	Description	Reference
Language	Specify the language displayed on the various screens and used for text entry.	page 84
Date/Time	Configure the unit's internal clock.	page 24
Network	Configure the unit's network settings.	page 84
Video Setup	Configure video input and output settings and video signal settings.	page 86
Audio Setup	Configure audio input and output settings and adjust settings.	page 87
Project	Save the current settings to the internal storage as a file. Returning of the unit's project to the default condition is also performed here.	page 81
Others	Configure settings such as those for AUX, remote cameras, [PGM] and [NEXT] viewer positions, and transition rates.	page 88
About Anycast	View the unit's version information and perform software updates.	page 90
Service Log	Export service logs.	page 89

The following sections provide a screen-by-screen explanation of the settings in the [System Setup] menu.

Displaying the [System Setup] Screen

Tap the 🚰 tab at the top right of the sub screen to display the [System Setup] menu.



When you tap a button, the respective settings screen appears.

[Language] Screen

Specify the language displayed on the various screens and used for text entry.

Audio Mixer	Camera	Effect		Recording	Streaming	∎ą,	4
🗅 Languag	le						
Syste	m Language	English	•				
Input	Language	English	•				

[System Language]: Select the language used for screen displays.

[Input Language]: Select the language used for text entry in the Titler.

[Network] Screen

Configure the unit's network settings.

These settings are required for connecting the unit to a network and performing operations such as streaming. The following items are available in the [Network] settings.

Item	Description	Reference
IPv4	Configure settings for network connections in an IPv4 environment.	page 85
IPv6	Configure settings for network connections in an IPv6 environment.	page 85
SNMP	Configure network access settings when managing the unit with SNMP.	page 85

[IPv4]

Configure the IP address and other settings for use in IPv4 network environments.

Tap [Apply] after configuring each setting.



- [Host Name]: Enter up to 64 alphanumeric characters for the host name.
- [MAC Address]: Displays the unit's MAC address. [Mode]: Select the mode for the IP address and other settings.
 - [Off]: Do not use IPv4.
 - [Manual]: Enter the settings manually. When you select this mode, enter the IP address, subnet mask, and default gateway. Use periods (.) as separators when entering the settings.
 - **[DHCP]:** Automatically configure the settings using the DHCP server information.

[DNS Mode]: Specify the DNS mode when [Mode] is set to a setting other than [Off].

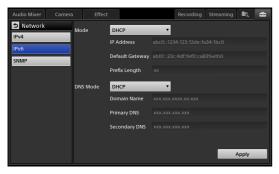
- [Off]: Do not use DNS.
- [Manual]: Enter the settings manually. When this is selected, enter up to 253 alphanumeric characters for the domain name, and enter the primary DNS and secondary DNS. The method of entry for the primary DNS and secondary DNS is identical to that of the IP address.
- **[DHCP]:** Automatically configure the settings using the DHCP server information.

[Apply]: Apply the settings.

[IPv6]

Configure the IP address and other settings for use in IPv6 network environments.

Tap [Apply] after configuring each setting.



- [Mode]: Select the mode for the IP address and other settings.
 - [Off]: Do not use IPv6.
 - [Manual]: Enter the settings manually. When this is selected, enter the IP address, default gateway, and prefix length.
 - **[DHCP]:** Automatically configure the settings using the DHCP server information.
 - [Auto]: Configure the settings automatically.

[**DNS Mode**]: Specify the DNS mode when [Mode] is set to a setting other than [Off].

- [Off]: Do not use DNS.
- [Manual]: Enter the settings manually. When this is selected, enter up to 253 alphanumeric characters for the domain name, and enter the primary DNS and secondary DNS. The method of entry for the primary DNS and secondary DNS is identical to that of the IP address.
- [DHCP]: Automatically configure the settings using the DHCP server information.

[Apply]: Apply the settings.

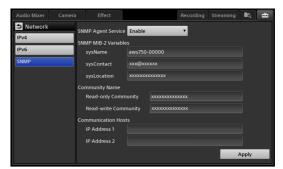
Тір

The [DNS Mode] settings for [IPv4] and [IPv6] are shared, and the settings that were configured later will be enabled.

[SNMP]

Configure the necessary settings for managing the unit with SNMP.

Tap [Apply] after configuring each setting.



[SNMP Agent Service]: Specify whether to enable the SNMP agent service.

- [Disable]: Disable the SNMP agent service.
- [Enable]: Enable the SNMP agent service. When this is selected, configure the items as well.

[SNMP MIB-2 Variables]: Enter the MIB-2 information.

- [sysName]: Enter the host name.
- [sysContact]: Enters the administrator name.
- [sysLocation]: Enter the unit's installation location.
- [Community Names]: Specify the community names.
 - [Read-only Community]: Enter the read-only community name.

• [Read-write Community]: Enter the read-write community name.

[Communication Hosts]: Specify the IP address of the SNMP manager. You can specify up to two.

• **[IP Address 1] and [IP Address 2]:** Enter the IP address or network address. Use periods (.) as separators when entering the settings.

[Apply]: Apply the settings.

Тір

If further information is required, contact your local Sony representative.

[Video Setup] Screen

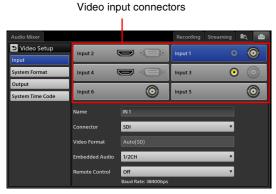
Configure video input and output settings and video signal settings.

The following items are available in the [Video Setup] settings.

Item	Description	Reference
Input	Configure settings related to video inputs.	page 86
System Format	Specify the video signal format handled by the unit (i.e., system format).	page 24
Output	Configure settings related to video outputs.	page 86
System Time Code	Configure the system timecode.	page 87

[Input]

Configure settings related to video inputs. Configure each setting after selecting a video input connector.



[Input 1] to [Input 6]: Select the video input.

[Name]: Enter up to 20 alphanumeric characters for the video input name.

The name configured here will appear in the various lists in the main screen.

[Connector]: For [Input 1] to [Input 4], select the video input connector to assign to each video input number.

- For [Input 1] and [Input 3]: Select [SDI] or [Composite].
- For [Input 2] and [Input 4]: Select [RGB] or [HDMI].

Тір

[Input 5] and [Input 6] are fixed at SDI.

[Video Format]: Select the signal format that will be input to each video input connector.

Тір

When [Auto] is selected for RGB or HDMI, the optimal signal is determined between the unit and input source device, and the video will be displayed at that resolution.

[Embedded Audio]: Specify the input channels of the embedded audio to be used.

- [1/2Ch]: Use channel 1 and 2 of the embedded audio.
- [3/4Ch]: Use channel 3 and 4 of the embedded audio.

Tip

Depending on the video input connector, some options may not be available.

- For HDMI, the setting is fixed at [1/2Ch].
- For composite and RGB, this setting is disabled due to the lack of embedded audio.

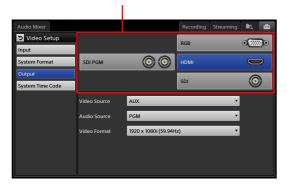
[Remote Control]: Configure control settings for remote cameras.

- [Off]: Disable remote control.
- [VISCA 1] to [VISCA 7]: Select the address of the remote camera to be controlled.

For details on remote camera settings, see "Remote Camera Connections and Settings" (page 82).

[Output]

Configure settings related to video outputs. Configure each setting after selecting a video output connector. Video output connectors



- Video output connector: Select the video output connector you want to configure. When you select a video output connector, the current values are displayed for each setting item.
- [Video Source]: Select [PGM] or [AUX] for the video output of the selected video output connector. The selectable video signals may differ depending on the output connector.
 - For [SDI PGM]: The setting is fixed at [PGM].
 - For [RGB], [SDI] and [HDMI]: Select [PGM] or [AUX].
- [Audio Source]: Select [PGM] or [MIX] for the embedded audio signal output of the selected video output connector. The selectable embedded audio signals may differ depending on the output connector.
 - For [SDI PGM]: The setting is fixed at [PGM].
 - For [HDMI] and [SDI]: Select [PGM] or [MIX].
- [Video Format]: Select the signal format that will be output to each video output connector.

Тір

When [Auto] is selected for RGB or HDMI, the unit and output destination device are linked and the optimal signal is output, and the video will be displayed at the resolution of that signal.

[System Time Code]

Configure the system timecode.

The system timecode configured here can be used for recording times.

Audio Mixer			Recording	Streaming	ا م	₿
🔁 Video Setup	System Time Code	00:00:19				
Input	Local Time					
System Format	Free Run Time	00:00:00				
Output						
System Time Code						

[System Time Code]: Select the time to be used as the system timecode.

- [Local Time]: Select this to use the time specified in the [System Setup] menu > [Date/Time] as the system timecode.
- [Free Run Time]: Preset a time that differs from that of the [Local Time]. When this is selected, tap

the setting value to display the [Free Run Time] dialog box, and then preset the time.



[Audio Setup] Screen

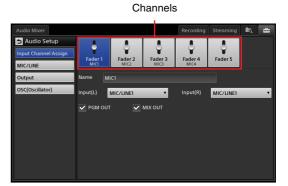
Configure audio input and output settings and adjust settings.

The following items are available in the [Audio Setup] settings.

Item	Description	Reference
Input Channel Assign	Assign audio signals to the channel faders.	page 87
MIC/LINE	Configure the mic/line levels.	page 88
Output	Adjust the PGM OUT and MIX OUT delays.	page 88
OSC (Oscillator)	Configure oscillator settings.	page 88

[Input Channel Assign]

Assign audio signals to the channel faders. Configure each setting after selecting a channel.



[Name]: Rename channels 1 to 4.

Enter up to 6 alphanumeric characters for the channel name.

[Input (L)] and [Input (R)]: Select the input signals to assign to the L and R of the channel.

- [MIC/LINE 1] to [MIC/LINE 4]: Assign the signals from MIC/LINE IN connectors 1 to 4
- [LINE 5] and [LINE 6]: Assign the signals from LINE IN connectors 5 and 6.
- **[HDMI 2] and [HDMI 4]:** Assign the signals from HDMI connectors 2 and 4.

Settings

• [SDI 1], [SDI 3], [SDI 5], and [SDI 6]: Assign the signals from SDI connectors 1, 3, 5, and 6.

Tips

- This setting is disabled when [RGB] is used for HDMI connector 2 and 4 and [Composite] is used for SDI connectors 1 and 3 in the [Video Setup] screen > [Input] settings.
- For HDMI and SDI embedded audio sources, when audio is selected for either the L channel or the R channel, the audio for the other channel in the pair will be selected automatically.
- [PGM OUT]: Select this checkbox when you want to output the audio of channel faders 1 to 5 to PGM OUT.
- [MIX OUT]: Select this checkbox when you want to output the audio of channel faders 1 to 5 to MIX OUT.

[MIC/LINE]

Adjust the mic/line levels when the input audio signal is too large or too small.

Configure the mic/line levels after selecting an audio input connector.



[MIC/LINE Level]: Select [High (+4dB)], [Middle (-20dB)], or [Low (-44dB)] while using the base level of the input device as a reference.

The mic/line levels can only be configured for [MIC/LINE 1] to [MIC/LINE 4].

[Output]

Adjust the PGM OUT and MIX OUT delays so that the video and audio matches.



- **[PGM Delay]:** Adjust the delay time for PGM OUT. Drag the slider, and adjust the delay time within a range of 0 to 7.5 frames (0.25 increments).
- [MIX Delay]: Adjust the delay time for MIX OUT. Drag the slider, and adjust the delay time within a range of 0 to 7.5 frames (0.25 increments).

[OSC (Oscillator)]

Configure settings for outputting oscillator signals that will be sued for adjustments.



[OSC Freq.]: Select the oscillator frequency. Select [Off] (disable oscillator), [100Hz], [1kHz], or [10kHz].

[OUT Level]: Adjust the output level of the oscillator signal.

Drag the slider to adjust within a range of $-\infty$ to 0 dBFS.

[OSC OUT]: Select the checkbox of the output destination for the oscillator signal.

[Others] Screen

Configure settings such as those for AUX, remote cameras, [PGM] and [NEXT] viewer positions, and transition rates.

The following items are available in the [Others] settings.

Item	Description	Reference
AUX	Configure this if necessary when outputting AUX.	page 61
Remote Camera	Configure this to perform remote controls for VISCA-compatible cameras.	page 82
PGM/ NEXT Position	Switch the display positions of the [PGM] viewer and the [NEXT] viewer.	page 88
Transition Rate	Configure the selectable options for the transition rate in the main screen.	page 89

[PGM/NEXT Position]

Switch the display positions of the [PGM] viewer and the [NEXT] viewer.



[PGM Viewer Position]: Select whether to display the [PGM] viewer in the upper or lower position.

- [Upper]: Display the [PGM] viewer in the upper position.
- **[Lower]:** Display the [PGM] viewer in the lower position.

[Transition Rate]

Configure the selectable options for the transition rate in the main screen.



[Rate 1] to [Rate 3]: Configure the three selectable options that will appear in the drop-down list. Tap each setting value to display a dialog box, configure the transition rate within a range of 0.0 to 4.9 seconds, and then tap [Set].

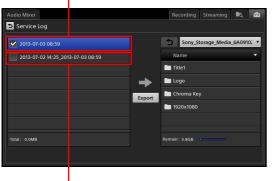


[Service Log] Screen

Export service logs.

A list of log files appears in the area to the left. The start dates and times of acquisition are displayed for the file names of logs that are currently being acquired, and the start and end dates and times of acquisition are displayed for the file names of past logs.

Log currently being acquired.



Past log.

The export procedure is identical to that in the File Manager. For details, see "Exporting Files" (page 80).

Appendix

Software Updates

View the unit's version information and perform software updates.

Viewing Version Information

You can view the unit's system version, serial number, and unique ID in the [System Setup] menu > [About Anycast] > [Information].

You can view detailed version information by tapping [Detail Version].

Audio Mixer			Recording	Streaming	۱.	-
🔁 About Anycast	Version :	1.00	De	etail Version		
Information	Serial Number :	03004				
Update	Model :					
License	Unique Device ID :	03004AWS750				
Open Source						

Updating the Software

You can find information on version updates at the web portal of each dealer.

You can also access the information from the following URL.

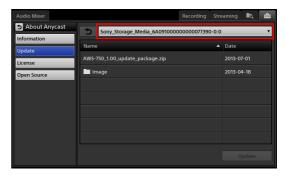
http://www.sony.net/

Notes

- The updating procedure cannot be canceled once started.
- When update is complete, the unit shuts down automatically. Perform updates when shutdown is not a concern.
- 1 Save the update package to an external drive, and connect the drive to a USB port on the right side of the unit.
- **2** Display the [About Anycast] screen of the [System Setup] menu, and tap [Update] in the menu to the left.

The [Update] screen appears.

3 Select the external drive on which the update package is stored.



When you select the external drive, the files stored on the drive are displayed.

Tip

If you changed the name of the update package, it will not appear in the list.

4 Select the file, and tap [Update].

Audio Mixer				Recording	Stre	aming	∎ą.	ŧ
🔁 About Anycast	•	Sony_Storage_Me	dia 6A0910000	00000077390	0-0:0	-	-	v
Information					_		_	
Update	Name				^	Date		-
License	AWS-	750_1.00_update_p	ackage.zip			2013-0	7-01	
Open Source	i Ir	nage				2013-0	4-18	
						U	pdate	

The currently installed version and the version of the update package are displayed.

5 Check the versions, and tap [Yes] when you are ready to install.

Installation starts. When installation is complete, a message appears.

6 Tap [OK].

The unit shuts down.

7 Remove the external drive.

Troubleshooting

Messages

During operation of the unit, messages will appear when problems occur. Read the messages, and follow their instructions. If the problem persists, write down the message number that is displayed, and contact your local Sony representative.



The following types of message exist.

- (**Information**): Notifications
- (?) (Verification): Messages that request verification
- (Warning): Warnings that indicate that continuing an operation may result in error
- (Error): Warnings that indicate severe errors, such as inability to continue operations and malfunctions

The "File Not Found" buttons in each list will be deleted

from the lists the next time the unit is started.

Icon Displays in Lists

This A warning mark appears if a problem exists with materials in the [Scene] list or [Option] menu. Check the status in the [Option] menu, and perform the appropriate operation.



Problems and Solutions

Check the following before requesting repairs. If the problem persists, contact your local Sony representative.

Symptom	Possible cause	Solution
Videos do not appear in the lists.	The connected device is not turned on.	Restart the device.
	The cables are not connected properly.	Connect the cables properly.
	The video input signals are not assigned properly.	Assign the video input signals properly.
		For details, see "[Input]" (page 86).

Tip

Symptom	Possible cause	Solution	
The tab you want to operate does	The appropriate list is not open.	Display the list for the desired option from the	
not appear in the sub screen.	The [Option] menu is open.	[Option] menu.	
		For details, see "Sub Screen" (page 35).	
Titles are not inserted properly.	The image file that includes the alpha channel was not created properly.	Create the image file with the alpha channel again, and make sure to do so properly.	
	Adjustments have not been performed properly.	Perform adjustments in the [Title 1] or [Title 2] screen in the sub screen.	
		For details, see "To adjust the appearance of composites" (page 43).	
Audio is not output from the headphones or speakers. (The	The connected device is not turned on.	Turn on the device.	
audio level meter does not move.)	The cables are not connected properly.	Connect the cables properly.	
	The audio input signals are not	Assign the audio input signals properly.	
	assigned properly.	For details, see "[Input Channel Assign]" (page 87).	
	The [CH On] button is turned off.	Enable (i.e., light) the [CH On] button.	
		For details, see "Step 5: Audio Mixing" (page 29).	
	The channel fader is lowered.	Raise the channel fader.	
		For details, see "Step 5: Audio Mixing" (page 29).	
	The PGM OUT fader is lowered.	Raise the PGM OUT fader.	
		For details, see "Step 5: Audio Mixing" (page 29).	
The audio is not as expected. The PGM (or MIX) audio cannot be heard.	The target for monitoring is incorrect.	Tap the [PGM] button (or [MIX] button) at the bottom of the audio level meter to switch to the audio you want to monitor.	
		For details, see "Switching the Monitored Audio" (page 65).	
	The output settings are incorrect.	Select the [PGM OUT] and [MIX OUT] checkboxes in [System Setup] > [Audio Setup] > [Input Channel Assign].	
		For details, see "[Input Channel Assign]" (on page 87).	
Audio is not output from the	The monitor output level is low.	Raise the level via [Monitor Level] adjustment.	
headphones or speakers. (The audio level meter does move.)		For details, see "Adjusting the audio level for monitoring" (on page 30).	
Audio is not output from the internal speakers.	A device is connected to the monitor output connector.	When the HEADPHONES jack is in use, audio output from the internal speakers is disabled. Disconnect the device.	
Cameras cannot be controlled.	Remote control registration has not	Configure the settings that enable remote control.	
	been performed.	For details, see "Remote Camera Connections and Settings" (page 82).	
	The connection cable is faulty.	Check that cables that were properly connected are being used.	
		For details, see "Connector Pin Assignments" (page 100).	
	The baud rate of the connected camera is incorrect.	Set the baud rate of the connected camera to 38,400 bps.	
		For details, refer to the instruction manual for the camera.	
Camera images are displayed	The settings on the camera are	Check the vertical image flip setting on the camera.	
upside down.	upside down.	For details, refer to the instruction manual for the camera.	

Symptom	Possible cause	Solution
The up, down, left, and right directions are reversed during	The [Pan Reverse] and [Tilt Reverse] settings in the [Camera	Configure the [Pan Reverse] and [Tilt Reverse] settings in the [Camera Settings] screen.
	Settings] screen are not configured correctly.	For details, see "Configuring camera settings" (page 46).
I want to restore the factory default - conditions.		Contact your local Sony representative.
Configured date and time settings change when the unit is restarted.	Incorrect date and time displays may indicate that the internal battery is low.	Contact your local Sony representative.
The touchscreens do not respond to taps.	You are touching a screen that is not related to the current operation.	Do not touch the screen that is not related to the current operation.

Maintenance

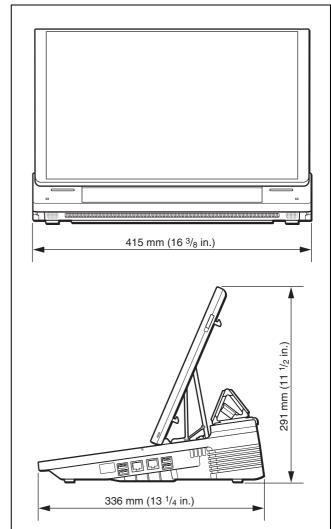
Remove dust from the ventilation holes once per month or whenever necessary.

Specifications

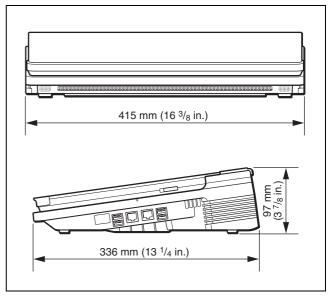
Main Unit

General

Power requirements		
-	19.5 V DC, 9.2 A	
AC adapter	Operating Voltage: 100-240 V AC,	
	2.5A, 50-60 Hz	
Power consump	tion	
	160 W	
Operating temperature		
	5 °C to 35 °C (42 °F to 95 °F)	
Dimensions	415 mm × 97 mm × 336 mm	
	$(16^{-3}/_{8} \text{ inches} \times 3^{-7}/_{8} \text{ inches} \times$	
	$13^{1}/_{4}$ inches) (W × H × D)	
Mass	Approx. 6.5 kg (14 lb 5.3 oz.)	



Main display closed



Video signals

VIDEO INPUTS

HD/SD SDI	BNC type (4)
	SMPTE-292M, SMPTE-259M-C
Composite	Phono jack (2)
RGB	D-Sub 15pin Type (2) (Female)
HDMI	HDMI (Type A) (2)

VIDEO OUTPUTS

HD/SD SDI	BNC type (2)
	SMPTE-292M, SMPTE-259M-C
HD SDI	BNC type (1)
	SMPTE-292M
RGB	D-Sub 15pin Type (1) (Female)
HDMI	HDMI (Type A) (1)
REF OUT	BNC Type (1)
	Analog black burst signal
	NTSC: 0.286 Vp-p, 75 Ω, negative sync
	PAL: 0.3 Vp-p, 75 Ω, negative sync

Audio signals

AUDIO INPUTS

Analog inputs 1-4 XLR/TRS Combo Type (4) Ref. Level: +4 dBu, -20 dBu, -44 dBu Input impedance: 3.3 k Ω or more

Mic. Power: +48 V On/Off

Analog inputs 5-6

Phono jack (2) Reference input level: -10 dBu Input impedance: $10 \text{ k}\Omega$ or more

AUDIO OUTPUTS

PGM OUT	TRS phone (2)
	Reference level: +4 dBu (10 k Ω load)
	Max. output level: +24 dBu
	Output impedance: 150Ω
MIX OUT	Phono jack (2)
	Reference level: $-10 \text{ dBu} (10 \text{ k}\Omega \text{ load})$
	Max. output level: +10 dBu
	Output impedance: 470Ω
HEADPHONES	
	1/4" Stereo Phone Jack Type (1)
	Max. power: $35 \text{ mW} \times 2$

Max. power. $55 \text{ mm} \times 2$
Impedance: 47 Ω
Built-In Speaker 1W (2)
Size: 20 mm $(^{13}/_{16}$ in.) in diameter

Other Interfaces

LAN	RJ45 Type (2)
	100 base-TX, 1000 base-T
	LAN2 is not working on V1.0.
USB	USB A Type (4)
	SuperSpeed USB (USB3.0)
	Max current output capability up to
	1200 mA (total for four ports)
GPI	9 pin in-line connector
	Input (4): TTL
	-

VISCA	Output (4) : Open corrector GPI is not supported by V1.0. 5 pin in-line connector (1) RS-422 equiv.
	Sony VISCA camera commands are
	supported.
	Baud Rate: 38400 bps
LCD	Main display: 15.6" High Brightness
	LCD 1920 × 1080 60 Hz, capacitance
	sensor
	Sub display: 10.6" High Brightness
	LCD 1280×76860 Hz, capacitance

sensor

Supplied accessories

Before Using This Unit (1) AC adapter (1) VGP-AC19V56 Anti-glare film $373 \text{ mm} \times 238 \text{ mm} (14^{3}/_{4} \text{ in.} \times 9^{3}/_{8} \text{ in.})$ (1) $266 \text{ mm} \times 156 \text{ mm} (10^{-1}/_2 \text{ in.} \times 6^{-1}/_4 \text{ in.})$ (1)Detachable panel cover (1) Connector Phoenix Contact 5 pin (1) (Male) Phoenix Contact 9 pin (1) (Male)

Optional accessories

AC power cord (for USA and Canada) 125 V, 10 A, 2.4 m (7 ft. 10 ¹/₂ in.) Part number: 1-551-812-31

- AC power cord (for Europe) 250 V, 10 A, 2.5 m (8 ft. $2^{1}/_{2}$ in.) Part number: 1-782-929-12
- AC power cord (for China) 250 V, 10 A, 1.83 m (6 ft. ¹/₂ in.) Part number: 1-830-860-11

Design and specifications are subject to change without notice.

Notes

- Always make a test recording, and verify that it was recorded successfully. SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION OR REIMBURSEMENT ON ACCOUNT OF FAILURE OF THIS UNIT OR ITS RECORDING MEDIA, EXTERNAL STORAGE SYSTEMS OR ANY OTHER MEDIA OR STORAGE SYSTEMS TO RECORD CONTENT OF ANY TYPE.
- Always verify that the unit is operating properly before use. SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION OR REIMBURSEMENT ON ACCOUNT OF THE LOSS OF PRESENT OR PROSPECTIVE PROFITS DUE TO FAILURE OF THIS UNIT, EITHER DURING THE WARRANTY PERIOD OR AFTER EXPIRATION OF THE WARRANTY, OR FOR ANY OTHER REASON WHATSOEVER.

Performance

Video signal performance

Video process	10 bit, 422, 1920 × 1080 59.94/50i
REF OUT subcarrier frequency	Less than 50 ppm

Audio signal performance

Sampling frequency	48 kHz
Quantization	24 bit (A/D, D/A) 40 bit (DSP)
Frequency response (MIC/ LINE)	20 Hz to 20 kHz, +0.5 dB to -2 dB
THD (MIC/LINE –20 dBu 1 kHz)	0.25% or less
Dynamic range	94 dB or more

Functions

Video switcher

Configuration	Input: 6 Primary Video inputs + Internal Content1 M/E + 4 Keyer (2 × PinP, 2 × Title) + 2 Logo Output: PGM OUTPUT, PGM/AUX OUTPUT
Video effect	Transition: Mix, Wipe (4 patterns) PinP: Single (2 patterns), Double (9 patterns) Chromakey: Standard, Chromakey + PinP
Key source	Title: Input Signals or Internal Still Picture (up to 1920 × 1080) Logo: Internal Still Picture (320 × 320)
Key type	Title: Luminance Key / Alfa Channel Logo: Alfa Channel
Internal content	Black, Color Bar (Non standard 7 bars type), Imported files
External controller	USB keyboard (US 101, 104 keys type)

Audio mixer

Configuration	Input: 6 Monaural / 6 Stereo Embedded Audio inputs Mixing: 5 Stereo Mixing Output: PGM (Stereo) / MIX (Stereo)
Input control	Input Trim: -15 dB to +15 dB Filter: High Cut 8 kHz, Low Cut 100 Hz (12 dB/Oct) EQ: 3 Band Equalizer Limiter: 100:1 Compressor: 2:1 Pan: 31 position
Oscillator	100 Hz, 1 kHz, 10 kHz
Embedded audio	Input from SDI and HDMI: 2 channels Output to SDI and HDMI: 2 channels Linear PCM

Camera control

Control protocol	VISCA
Recommended camera	BRC-Z330, BRC-Z700, BRC-H700, BRC-H900
Max. controllable cameras	6 cameras
Preset memory	Memory: 16 Items: Pan / Tilt / Zoom / Focus / Iris

Titler

Preinstalled fonts	17 fonts including SST Medium, DFHei-W5-A, SST Japanese Pro Regular, and YDGothic 100 Pro
Preinstalled templates	100 patterns and more
Import font format	Vector Fonts (.ttf, pfb, otf)
Input language	10 languages English, Chinese (Simplified), Chinese (Traditional), Japanese, Korean, German, Spanish, Italian, Portuguese, French
Input method editor	Pin Yin (Chinese simplified) Changjie (Chinese traditional) Roman input (Japanese) Jamo input (Korean)

Media Player (V1.1 function)

Playable files	One still image file or one movie file
Application data capacity	192 GB

Supported Input Formats

Тір

Materials with aspect ratios other than 16:9 will retain their aspect ratios and be fitted to the top and bottom of the display. As a result, black bars may appear at the left and right.



HD/SD SDI (SDI input) connectors 1, 3, 5, and 6

Video

HD/SD	Resolution	Frequency / ip
HD	When the system format is 1080 50i	
	1920 × 1080	50i
	When the system format is	1080 60i
	1920 × 1080	59.94i
SD	When the system format is 1080 50i	
	720 × 576 (D1 625)	50i
	When the system format is 1080 60i	
	720 × 480 (D1 525)	59.94i

Audio

HD SDI 24-bit, SD SDI 20-bit, 48 kHz, 2 ch (select from 1/2 ch or 3/4 ch), L-PCM

COMPOSITE (composite video input) connectors 1 and 3

Resolution	Frequency / ip
When the system format is 10	080 50i
720 × 576 (PAL)	50i
When the system format is 1080 60i	
720 × 480 (NTSC)	59.94i

RGB (RGB input) connectors 2 and 4

Resolution	Frequency / ip
640 × 480 (VGA)	60p
1024 × 768 (XGA)	60p 75p
1600 × 1200 (UXGA)	60p
1280 × 1024 (SXGA)	60p
1280 × 768 (WXGA)	60p
1600 × 900	60p
1920 × 1080 (HD)	60p

HDMI (HDMI input) connectors 2 and 4

Video

Resolution	Frequency / ip
640 × 480 (VGA)	59.94p 60p
1024 × 768 (XGA)	60p 75p
1600 × 1200 (UXGA)	60p
1280 × 1024 (SXGA)	60p
1280 × 768 (WXGA)	60p
1600 × 900	60p
When the system format is 10	080 50i
720 × 576 (SD)	50p
1920 × 1080 (HD)	50i
1920 × 1080 (HD)	50p
1920 × 1080 (HD)	60p
When the system format is 1080 60i	
720 × 480 (SD)	60p
720 × 480 (SD)	59.94p
1920 × 1080 (HD)	59.94i
1920 × 1080 (HD)	60i
1920 × 1080 (HD)	59.94p
1920 × 1080 (HD)	60p

24-bit / pixel RGB 444, YCBCR 422, YCBCR 444 (auto select)

Audio

32 kHz, 44.1 kHz, 48 kHz (auto select) 16-bit, 20-bit, 24-bit (auto select) L-PCM, 2 ch

Supported Output Formats

Тір

Materials with aspect ratios other than 16:9 will retain their aspect ratios and be fitted to the left and right of the display. As a result, black bars may appear at the top and bottom.



HD/SD SDI (SDI output) connectors (PGM only)

Video

HD/SD	Resolution	Frequency / ip
HD	When the system format is	1080 50i
	1920 × 1080	50i
	When the system format is 1080 60i	
	1920 × 1080	59.94i
SD	When the system format is 1080 50i	
	720 × 576 (D1 625)	50i
	When the system format is 1080 60i	
	720 × 480 (D1 525)	59.94i

Audio

HD SDI 24-bit, SD SDI 20-bit, 48 kHz, 4 ch (3/4 ch and 1/2 ch are same), L-PCM

HD SDI (SDI output) connector (PGM/ AUX)

Video

Resolution	Frequency / ip
When the system format is 10)80 50i
1920 × 1080	50i
When the system format is 1080 60i	
1920 × 1080	59.94i

Audio

24-bit, 48 kHz, 4 ch (3/4 ch and 1/2 ch are same), L-PCM

RGB (RGB output) connector (PGM/AUX)

Resolution	Frequency / ip
640 × 480 (VGA)	60p
1024 × 768 (XGA)	60p 75p
1280 × 1024 (SXGA)	60p
1280 × 768 (WXGA)	60p
1920 × 1080	60p

HDMI (output) connector

Video

Resolution	Frequency / ip	
640 × 480 (VGA)	60p	
1024 × 768 (XGA)	60p 75p	
1280 × 1024 (SXGA)	60p	
1280 × 768 (WXGA)	60p	
When the system format is 10	080 50i	
1920 × 1080 (HD)	50i	
1920 × 1080 (HD)	50p	
When the system format is 1080 60i		
1920 × 1080 (HD)	59.94i	
1920 × 1080 (HD)	59.94p	

24-bit / pixel RGB 444, YCBCR 422 (auto select)

Audio

24-bit, 48 kHz, 2 ch, L-PCM

File Formats

Importable still images and movies

Still image file format	.tiff, .tif, .png, .jpeg, .jpg, .jpe
Movie file format (V1.1 function) ¹⁾	.mxf (MPEG HD422, LPCM) ²⁾ .mxf (MPEG HD, LPCM) ²⁾ .f4v (H.264, AAC) ³⁾ .mov (MPEG4, AAC) ³⁾ .mov (H.264, AAC) ³⁾ .mp4 (H.264, AAC or LPCM) ³⁾ .m2ts (H.264, AC-3 or LPCM) ³⁾ 2) 50/59.94i 3) Up to 1920 × 1080, up to 30p
Application data capacity	192 GB

1) File formats may be converted in some cases.

Recording function

Recorded video format

Determined by the [System Setup] > [Video Setup] > [System Format] setting.

Recording format

Format	MPEG HD (.mxf) * Can be simultaneously recorded with VOD file.
Container format	MXF
Extension	.mxf
Video codec	MPEG-2 (Main Profile & High Level), HD Long 1920 × 1080 420, 8 bit, 35 Mbps
Audio codec	LPCM 2CH (all 4CH), 48 KHz, 16 bit
Recording source	Video: PGM or AUX Audio: PGM or MIX
Application data capacity	192 GB
Maximum recording time	About 600 min. Up to 360 min. per file

Streaming function

Format	Flash
Protocol	RTMP
Video codec	H.264
Audio codec	AAC

Encoder presets

Item	Resolution (W × H)	Video + audio bit rate	Frame rate	Sample rate
High Bandwidth- Flash	960 × 540	800 Kbps + 96 Kbps	30 fps or 25 fps ¹⁾	48,000 Hz
Medium Bandwidth- Flash	608 × 342	500 Kbps + 64 Kbps	30 fps or 25 fps ¹⁾	48,000 Hz
Low Bandwidth- Flash	480 × 270	350 Kbps + 32 Kbps	30 fps or 25 fps ¹⁾	48,000 Hz

1) Depending on the [System Setup] > [Video Setup] > [System Format] setting (page 24), the frame rate will be as follows.

Setting	Frame rate
1080 50i	25 fps
1080 60i	30 fps

VOD recording format

Extension	.f4v
Video codec	H.264 960 × 540, 30/25 fps, 800 kbps
Audio codec	AAC 48 kHz, 96 kbps
Recording source	Video: PGM or AUX Audio: PGM or MIX
Maximum recording time	360 minutes per file

Supported external drive file systems

NTFS, HFS+, FAT, FAT32, exFAT



When exporting files that exceed 4 GB in size, format the external drive on a computer using the exFAT file system beforehand.

File system that can be formatted on the unit

FAT32 only

Data Saved to Projects

Main screen

Item		Can be
Location	Setting	saved
[Input] / [Scene]	List selections	Yes
[Input] list	Material list	Yes
[Scene] list	Material list	Yes
[Option] menu	List display	Yes
[Camera] list	Preset list	Yes
[Title 1] / [Title 2] list	Material list	Yes
[Effect] list	Effect list	Yes
[Logo 1] / [Logo 2] list	Material list	Yes
[AUX] list	Material list	Yes
[Transition] list	Material list	Yes
Transition rate	Time selection	No
[PGM] viewer	Video display	No
[NEXT] viewer	Video display	No
	Selection of adjustment handles overlaid in the [NEXT] viewer	No

		Can be
Location Setting		saved
Titler	Various settings	No

Sub screen

Item		Can be saved
Location	Setting	
Tabs	Tab selection	No
[Audio Mixer] screen	Fader levels [Ch On] [Monitor Level] Monitor target	No (the level for fader 5 is remembered for each material)
[Access] screen ([Audio Mixer])	[EQ] [Filter] [Limiter/ Compressor] [Input Trim] [Pan]	Yes
[Input] screen	[Embedded Audio] [Audio Level]	No (remembered for each material)
[Camera] screen	Controls	No (remembered for each material)
[Camera Settings] screen	Various settings	No (remembered for each material)
[Title 1] / [Title 2] screen	Various settings	No (remembered for each material)
[Effect] screen	Various settings	Yes
[Logo 1] / [Logo 2] screen	Various settings	Yes
[Media Player] screen	Screen displays	No
[Recording] screen	Various settings	Yes
[Streaming] screen	Various settings	Yes
[File Manager]	Screen displays	No
screen	Various materials	No
[System Setup]	[Language]	Yes
menu	[Date/Time]	No
	[Network]	Yes
	[Video Setup]	Yes
	[Audio Setup]	Yes
	[Others]	Yes
	[LCD Backlight]	Yes
	[Project]	No
	[About Anycast]	No
	[Service Log]	No

Item		Can be saved
Location	Setting	
Virtual keyboard	Page selection Mode selection Shift Caps Lock	No

External Keyboards

- 101-key and 104-key English external keyboards are supported.
- The Ctrl key and other control keys may be disabled in some cases.

Connector Pin Assignments

VISCA connector

RS-422, 5-pin

VISCA RS-422

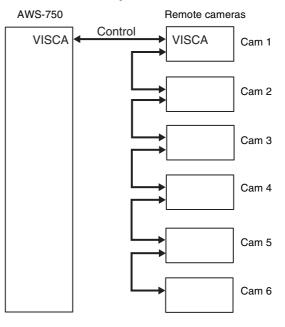
\sim	\sim	\sim	\sim	\sim
			I I	
	1 ' I			1 ' I
	늬	늬	늬	
75	75	75	75	75
		\sim		
5	1	2	2	-1

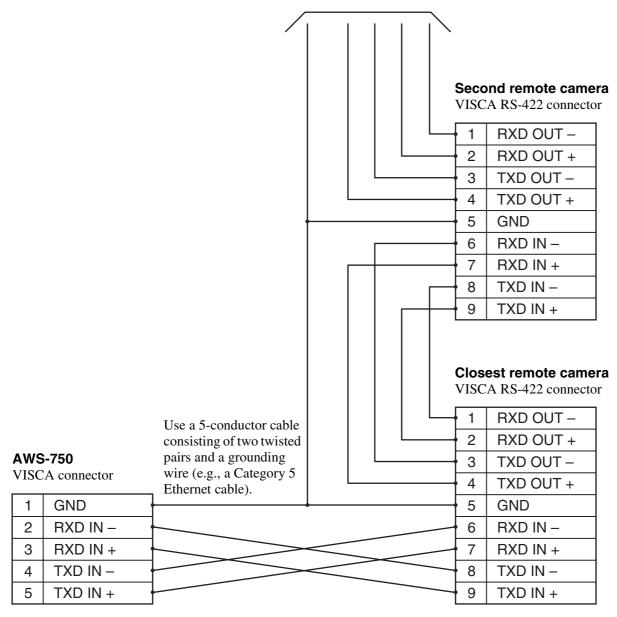
Model number Phoenix Contact: MC 1,5 / 5-ST-3,5

Note

As the baud rate is fixed at 38400 bps, configure the setting on the remote camera side.

Connection example:





to next connector

Glossary

Black burst signal

A reference signal used to achieve external synchronization (GenLock). This is a black composite signal.

Chroma key

A method of creating a composite picture by deleting components that contain a specified color (chroma). Typically, a subject is captured in front of a blue background, commonly referred to as a "blue screen," and the blue background is removed, leaving only to subject for compositing.

Color bars

A test signal which displays vertical colored stripes on a monitor. Used to adjust the hue and saturation of colors on video cameras and monitors.

Compressor

A function which smoothly limits audio signals exceeding a certain threshold. Used to prevent distortion in high-level audio signals.

Default gateway

A router or computer on a network which serves as an entrance to an outside network. Other computers in the network access the outside network via the default gateway.

Delay

A function which delays audio to bring it into synchronization with video, used when video is input later than the corresponding audio.

DHCP (Dynamic Host Configuration Protocol)

A protocol for automatically assigning IP addresses to devices when they connect to a network, and recovering the addresses when they disconnect.

DNS (Domain Name System)

A system which allows Internet domain names to be translated into IP addresses.

Embedded audio

Audio that is included in a video signal.

Encoding

Data rate conversion that uses compression technology and is performed based on the transmission bandwidth and the capacity of the recording media.

Equalizer (EQ)

A function that controls levels for selected audio frequencies in the high, mid, and low regions. Used to strengthen or suppress specific frequencies in order to improve the audio.

Filter

A function that removes signals that are within a specified frequency region. Used to remove cable noise and other kinds of noise.

GPI (General Purpose Interface)

A general-purpose interface that controls connected devices by switching the logic of that port on or off.

HDMI

A transmission interface standard for transferring video and audio as a digital signal.

Host name

A name assigned to a computer on a network to make it easier to identify. Usually consisting of alphanumeric characters, although conventions differ according to the system.

Limiter

A function which prevents audio levels from exceeding a specified threshold. Used to suppress peaks in audio with large differences in amplitude.

Logo

A permanently visible mark that is shown on videos and used to indicate copyrighted material, for example.

Mix

A new picture is mixed into an old picture, eventually replacing the old picture.

Mixdown

Combining audio inputs from multiple channels into one channel.

Monitor

To listen to audio and view video. Or a device for viewing and listening.

Oscillator

A transmitter that oscillates at a fixed frequency, such as a sine wave. This unit is equipped with an internal audio oscillator.

Pan

In audio, to adjust the left/right audio balance. In video, to move the camera to the left and right.

PFL (Pre-Fader Listen)

Monitoring audio before level adjustments with the audio channel faders. Used to check the input audio. On this system, pan and level control are not applied to PFL audio, even if trim, filter, EQ, pan, and level control settings have been made.

Picture-in-Picture (PinP)

An effect achieved by embedding a video within another video.

Preset

A function which allows a set of electrical settings to be saved and reproduced as a single set of data. This system has a camera preset function.

Program (PGM)

The final video and audio signals output from this system, after the application of effects. The video seen by viewers.

RGB

An output signal format which displays pictures by using the three primary colors: Red, Green, and Blue.

Serial digital interface (SDI)

A standard for transmitting uncompressed digital video signals and embedded audio over a single coaxial cable.

SNMP (Simple Network Management Protocol)

A protocol that allows you to monitor and control connected devices via a network. Using SNMP provides benefits, such as being able to quickly determine faulty devices when network errors occur.

Streaming

A method of transferring audio and data over a network for real-time playback.

Subnet mask

An IP address, which indicates the address of a device in a network, has two components: a network address (the address of the network) and a host address (the address of an individual computer). A subnet mask is a value used to specify how many bits in the IP address are reserved for the network address. A subnet is a smaller network created by dividing a large network into two or more parts.

Threshold

The level at which a limiter or compressor is activated.

Thumbnail

An image which has been reduced in size for the purpose of displaying a list of many images.

Tilt

To move a camera up and down.

Transition

To switch the video and audio within a specified duration.

Trim

To adjust the input level of audio signals. These adjustments are performed at the input stage, before level adjustments with the audio channel faders.

TRS

A jack with three contacts; the tip, ring, and sleeve.

VISCA

A protocol developed by Sony which allows video equipment to be connected to computers.

VOD (Video On Demand)

A system that allows video content to be placed on a network, which viewers can access freely.

Wipe

The next picture moves in to replace the current picture, as if wiping the old picture away.

XLR

A 3-pin connector, often called a Cannon connector. A locking mechanism keeps the connector securely connected even when the cable is pulled. Very stable despite its simple structure, and often used on microphones to suppress handling noise.



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