3-215-040-**13**(1)

SONY

Live Content Producer

Operating Instructions

Software Version 2.22 and Later

ANYCAST STATION

MEMORY STICK ™

AWS-G500

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Owner's Record

The model and serial numbers are located at the bottom.
Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No._____ Serial No._____

WARNING

To reduce the risk of fire or electric shock, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

THIS APPARATUS MUST BE EARTHED.

WARNUNG

Um Feuergefahr und die Gefahr eines elektrischen Schlages zu vermeiden, darf das Gerät weder Regen noch Feuchtigkeit ausgesetzt werden.

Um einen elektrishen Schlag zu vermeiden, darf das Gehäuse nicht geöffnet werden. Überlassen Sie Wartungsarbeiten stets nur qualifiziertem Fachpersonal.

DIESES GERÄT MUSS GEERDET WERDEN.

AVERTISSEMENT

Afin d'éviter tout risque d'incendie ou d'électrocution, ne pas exposer cet appareil à la pluie ou à l'humidité.

Afin d'écarter tout risque d'électrocution, garder le coffret fermé. Ne confier l'entretien de l'appareil qu'à un personnel qualifié.

CET APPAREIL DOIT ÊTRE RELIÉ À LA TERRE.

WARNING
When installing the unit, incorporate a readily accessible disconnect device in the fixed wiring, or connect the power plug to an easily accessible socket-outlet near the unit. If a fault should occur during operation of the unit, operate the disconnect device to switch the power supply off, or disconnect the power plug.

WARNUNG
Beim Einbau des Geräts ist daher im Festkabel ein leicht zugänglicher Unterbrecher einzufügen, oder der Netzstecker muss mit einer in der Nähe des Geräts befindlichen, leicht zugänglichen Wandsteckdose verbunden werden. Wenn während des Betriebs eine Funktionsstörung auftritt, ist der Unterbrecher zu betätigen bzw. der Netzstecker abzuziehen, damit die Stromversorgung zum Gerät unterbrochen wird.

AVERTISSEMENT
Lors de l'installation de l'appareil, incorporer un dispositif de coupure dans le câblage fixe ou brancher la fiche d'alimentation dans une prise murale facilement accessible proche de l'appareil. En cas de problème lors du fonctionnement de l'appareil, enclencher le dispositif de coupure d'alimentation ou débrancher la fiche d'alimentation.

WARNING: THIS WARNING IS APPLICABLE FOR USA ONLY.

If used in USA, use the UL LISTED power cord specified below.
DO NOT USE ANY OTHER POWER CORD.

Plug Cap	Parallel blade with ground pin (NEMA 5-15P Configuration)
Cord	Type SJT, three 16 or 18 AWG wires
Length	Minimum 1.5 m, Less than 2.5 m (8 ft 3 in)
Rating	Minimum 10 A, 125 V

Using this unit at a voltage other than 120 V may require the use of a different line cord or attachment plug, or both. To reduce the risk of fire or electric shock, refer servicing to qualified service personnel.

WARNING: THIS WARNING IS APPLICABLE FOR OTHER COUNTRIES.

1. Use the approved Power Cord (3-core mains lead) / Appliance Connector / Plug with earthing-contacts that conforms to the safety regulations of each country if applicable.
2. Use the Power Cord (3-core mains lead) / Appliance Connector / Plug conforming to the proper ratings (Voltage, Ampere).

If you have questions on the use of the above Power Cord / Appliance Connector / Plug, please consult a qualified service personnel.

AVERTISSEMENT

1. Utiliser un cordon d'alimentation approuvé (conducteur d'alimentation 3 âmes)/ connecteur d'appareil/prise avec contacts de mise à la terre conforme aux règles de sécurité de chaque pays si applicable.
2. Utiliser un cordon d'alimentation approuvé (conducteur d'alimentation 3 âmes)/ connecteur d'appareil/prise conforme aux valeurs nominales (tension, ampérage) correctes.

S'adresser à un personnel de service qualifié pour toute question concernant l'emploi du cordon d'alimentation/connecteur d'appareil/prise cidessus.

WARNUNG

1. Verwenden Sie Netzkabel(dreiadrig), Geräteanschlüsse und Netzkabelstecker mit Masseleitung, die den Sicherheitsrichtlinien des jeweiligen Landes entspricht.
2. Verwenden Sie Netzkabel (dreiadrig), Geräteanschlüsse und Netzkabelstecker mit Masseleitung, die den vor Ort herrschenden Spannungsanforderungen (Spannug, Stromstärke) entsprechen.

Bei Frage über die Eignung und Sicherheit von Netzkabeln (dreiadrig), Geräteanschlüssen und Netzkabelsteckern wenden Sie sich bitte an einen qualifizierten Electrotechniker.

For the customers in the USA

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

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

All interface cables used to connect peripherals must be shielded in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

IMPORTANT

The nameplate is located on the bottom.

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the manufacturer.
When you dispose of the battery, you must obey the law in the relative area or country.

For the customers in the USA

Lamp in this product contains mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance (www.eiae.org).

For the State of California, USA only

Perchlorate Material - special handling may apply, See
www.dtsc.ca.gov/hazardouswaste/perchlorate
Perchlorate Material : Lithium battery contains perchlorate.

IMPORTANT
La plaque signalétique se situe sous l'appareil.

ATTENTION
Il y a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Lorsque vous mettez la batterie au rebut, vous devez respecter la législation en vigueur dans le pays ou la région où vous vous trouvez.

WICHTIG
Das Namensschild befindet sich auf der Unterseite des Gerätes.

VORSICHT
Explosionsgefahr bei Verwendung falscher Batterien. Batterien nur durch den vom Hersteller empfohlenen oder einen gleichwertigen Typ ersetzen.
Wenn Sie die Batterie entsorgen, müssen Sie die Gesetze der jeweiligen Region und des jeweiligen Landes befolgen.

For the customers in Europe, Australia and New Zealand

WARNING
This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Pour les utilisateurs en Europe, Australie et Nouvelle-Zélande

AVERTISSEMENT
Il s'agit d'un produit de Classe A. Dans un environnement domestique, cet appareil peut provoquer des interférences radio, dans ce cas l'utilisateur peut être amené à prendre des mesures appropriées.

Für Kunden in Europa, Australien und Neuseeland

Warnung
Dies ist eine Einrichtung, welche die Funk-Entstörung nach Klasse A besitzt. Diese Einrichtung kann im Wohnbereich Funkstörungen verursachen; in diesem Fall kann vom Betreiber verlangt werden, angemessene Maßnahmen durchzuführen und dafür aufzukommen.

For the customers in Europe

The manufacturer of this product is Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, Japan.
The Authorized Representative for EMC and product safety is Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany. For any service or guarantee matters please refer to the addresses given in separate service or guarantee documents.

This apparatus shall not be used in the residential area.

Pour les clients en Europe

Le fabricant de ce produit est Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, Japon.
Le représentant autorisé pour EMC et la sécurité des produits est Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Allemagne. Pour toute question concernant le service ou la garantie, veuillez consulter les adresses indiquées dans les documents de service ou de garantie séparés.

Ne pas utiliser cet appareil dans une zone résidentielle.

Für Kunden in Europa

Der Hersteller dieses Produkts ist Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, Japan.
Der autorisierte Repräsentant für EMV und Produktsicherheit ist Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Deutschland. Bei jeglichen Angelegenheiten in Bezug auf Kundendienst oder Garantie wenden Sie sich bitte an die in den separaten Kundendienst- oder Garantiedokumenten aufgeführten Anschriften.

Dieser Apparat darf nicht im Wohnbereich verwendet werden.

For kundene i Norge

Dette utstyret kan kobles til et IT-strømfordelingssystem.

Für Kunden in Deutschland

Dieses Gerät ist nur für den Gebrauch in Gewerbe und Leichtindustrie bestimmt.

Für Kunden in Deutschland

Entsorgungshinweis: Bitte werfen Sie nur entladene Batterien in die Sammelboxen beim Handel oder den Kommunen. Entladen sind Batterien in der Regel dann, wenn das Gerät abschaltet und signalisiert „Batterie leer“ oder nach längerer Gebrauchsdauer der Batterien „nicht mehr einwandfrei funktioniert“. Um sicherzugehen, kleben Sie die Batteriepole z.B. mit einem Klebestreifen ab oder geben Sie die Batterien einzeln in einen Plastikbeutel.

For the customers in Taiwan only

廢電池請回收

Usage Notes

Copyright

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, or the act of recording on the hard disk of this unit, sharing folders, 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.

Points To Check Before Using Devices

- When recording or 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.
- If when using a camera or videocassette recorder, tape or similar there should be a failure in another device preventing recording, no responsibility can be taken for any loss of the material which was to have been recorded.

Regarding Cables

Use cables (particularly generic RGB) which are as short as possible.

IEEE1394 (i.LINK) Cables

Use cables with enhanced shielding, ferrite cores, and similar noise-reduction measures.

About the LCD Display

- Do not wipe the surface of the LCD display with a wet object. Water that gets inside the unit may cause it to malfunction.
- Do not set or drop objects on the LCD display. Also, do not put pressure on the display, such as by leaning on it with your hand or elbow.
- Condensation may form on the LCD display when the unit is moved from a cold place to a warm place, such as from the outdoors to room temperature. If condensation forms, thoroughly wipe off any moisture before using the unit. We recommend using tissues to wipe up any condensed moisture. If you wipe up the condensed moisture while the LCD display is still cold, the condensation may form again. Therefore it is best to wait until the LCD display has warmed up to room temperature.
- 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 may be "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.

Precautions for Products With Built-In HDD

This unit has a built-in hard disk drive (HDD). The HDD is a precision device. If subject to shock, vibration, static electricity, high temperature or humidity, data loss can occur. When installing and using the unit, closely observe the following precautions.

Protect from shocks and vibrations

When subject to shocks or vibrations, the HDD can be damaged and loss of data on the HDD can occur.

- When transporting the unit, use the specified packing material. When transporting on a dolly or similar, use a type which does not transmit excessive vibrations. Excessive shocks and vibrations can damage the HDD.
- Never move the unit while it is powered.
- Do not remove panels or outer parts of the unit.
- When placing the unit on a floor or other surface, make sure to put the unit down carefully.
- Do not place the unit near other devices that may become a source of vibrations.

Wait for 30 seconds after turning power off

For a brief interval after the power is turned off, the platters inside the HDD will still keep spinning and the heads will be in an insecure position. During this interval, the unit is more susceptible to shocks and vibrations than during normal operation. For a period of at least 30 seconds after turning power off, avoid subjecting the unit even to very light shocks. After this period, the hard disk will be fully stopped and the unit can be manipulated.

When HDD seems to be faulty

Even if the HDD is showing signs of malfunction, be sure to observe all the above precautions. This will prevent further damage from occurring until the problem can be diagnosed and corrected.

HDD replacement

The HDD, fan, and battery of the unit are consumable parts that will need periodic replacement. When operating at room temperature, a normal replacement cycle will be about three years (five years for the built-in lithium battery). However, this represents only a general guideline and does not imply that the life expectancy of these parts is guaranteed. Regarding parts replacement, consult your dealer or your Sony service representative.

External Hard Disk

- The hard disk is vulnerable to vibration and shock. Be sure to install the hard disk in the best possible environment, following the operating instructions supplied with the drive.
- Even using the recommended hard disk, depending on the operating environment or conditions, or in the event of deterioration because of age, the full performance of the hard disk may not always be obtained.
- Even when using the recommended hard disk to store material, the characteristics of the hard disk mean that frame drop or other problems may occur.
- To connect the recommended hard disk to this unit, use the interface cable supplied with the recommended hard disk.

Ensuring Good Performance From This Unit

Operation and storage

Avoid using or storing the unit in the following places.

- Where it is subject to extremes of cold or heat (operating temperature 0ºC to 40ºC (32ºF to 104ºF))
- Where it is subject to direct sunlight for extended periods, or close to heating equipment (Note that the temperature inside a car with the windows closed on a summer day can exceed 60ºC (140ºF))
- In conditions of high humidity or much dust
- Where it is subject to severe vibration
- Close to a source of strong magnetic fields
- Close to a radio, television, or other source of powerful electromagnetic radiation

Install in a level place

This unit is designed to be operated in a level place. Do not turn it vertically, or incline at an angle of 20 degrees or more.

Do not apply strong shocks

Dropping the unit, or subjecting it to other strong shocks may cause it to break.

Do not obstruct the ventilation holes

To prevent the temperature from rising, do not, for example, wrap the unit in a blanket while operating.

Care of the unit

Clean dirt from the cabinet and panel by wiping gently with a dry cloth. If the unit is very dirty, wipe with a cloth steeped in a little neutral detergent, then wipe dry. Do not use alcohol, thinners, insecticides, or other volatile solvents, as this may cause the case to deform or damage the finish.

Shipping

Pack in the original carton, or similar packaging, to cushion the unit from violent shocks.

Chapter 1 Overview

Features of This System

The AWS-G500 Anycast Station Live Content Producer is an audiovisual production system equipped with camera control, video switching, and live Internet distribution systems.
The following are the principal features.

All-in-One

AWS-G500 is light and conveniently portable, while combining video switching and audio mixing functions with video monitor and camera control, to provide an inclusive package for live content generation. Whereas previously it was necessary to assemble various devices, this is no longer necessary, and the time and effort required to install, connect, and adjust the equipment has been greatly reduced.

Video Switching

- You can switch between a maximum of six analog, DV, SDI (when using a serial digital interface module), HD analog (when using an HD video interface module), HD SDI (when using an HD serial digital interface module), or RGB input images.
- The system provides both mix (dissolve) and wipe transition effects, Picture-in-Picture for combining videos, and luminance and chroma keying functions.
- Before carrying out a switching operation, you can preview the next selected image in the PVW viewer.
- You can mix video using a maximum of five effects at one time, such as incorporating (keying) a separate video clip when switching between two video clips with a wipe or other transition effect, as well as superimposing text (downstream key) and displaying a copyright logo.

- You can register video effect settings as snapshots and recall them quickly when necessary.

Text Typing Tool Software

The system includes installed Text Typing Tool software, which allows easy creation of titles. Titles created with the Text Typing Tool software can be used in the DSK (downstream key) or as luminance keys.

Audio Mixing

You can mix up to six audio inputs.
Each channel is provided with a range of functions, including fader, input trim, filter equalizer, limiter, and compressor pan (balance), allowing the sound quality and level to be adjusted on each channel separately.
In addition, each channel has a prefader listen function, allowing you to monitor the input audio before any effects are applied by the fader, and each output has a delay function to correct any discrepancies between the audio and video timing.

Remote Camera Control

- Using a camera with VISCA support, you can remotely control the camera movements, including panning, tilting, and zoom.
- The camera preset function allows you to store camera pan, tilt, and zoom settings. Using the camera preset function, you can immediately set the camera to the preset state when required just by pressing a button.

Recording on an External Hard Disk

You can record (.avi) program outputs and video material (video and audio) being input to the unit to an external hard disk connected to the i.LINK connector. By connecting the external hard disk containing the recorded material to a nonlinear editing system, you can go straight into editing operations, without the need to transfer data from video tape to the nonlinear editing system.
You can also play files recorded on the external hard disk as input source material.
This system can use two external hard disks as standard, or three with the addition of an option module, recording four channels (maximum six channels) simultaneously.

Caution

Connectivity with all nonlinear editing systems is not guaranteed. Commercially available software must be installed on the computer for recognization of the hard disk.

Creating and Exporting EDL

You can save the switching information performed on this unit as an EDL (Edit Decision List), export it to a “Memory Stick” or USB flash memory, and then use it on a nonlinear editing system.
If you perform switching while creating an EDL, and simultaneously record material (video and audio) to an external hard disk, there is no need to start editing work from the beginning because you can transfer the EDL you created and the external hard disk to a nonlinear editing system.

Streaming Broadcast

You can encode in Real Media streaming file format (.rm) in real time, for a live broadcast. In addition, you can store live broadcasts as VOD files on the unit’s internal hard disk and transmit them using the internal server, or you can export the VOD files and transmit them from a separate server.

Switching the Aspect Ratio for PGM Output

The system supports both 4:3 and 16:9 output aspect ratios.
Menu items, viewer displays, and program outputs from the system are all adjusted according to the aspect ratio mode selected. Input materials of different aspect ratios can coexist regardless of the mode selected.

VCR Playback Operations

You can perform playback operations for VCRs connected to the DV connectors of the SD video interface module (BKAW-570) from this unit. You can also register specific positions on a videotape and access them whenever necessary.

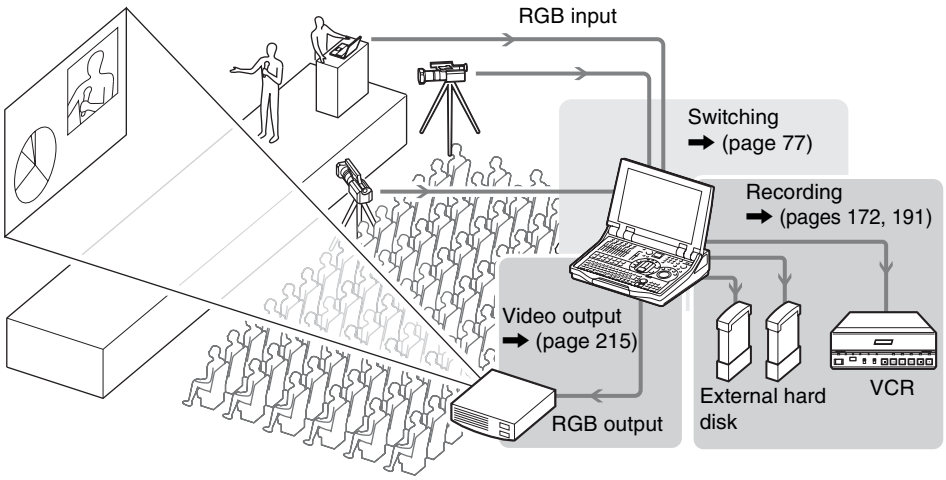
Example Applications

The following are examples of applications utilizing the functions of AWS-G500.

Event and presentation support

At seminars, events, and presentations you can use this unit to switch among camera inputs and data from a computer, while displaying the output on a projector or large monitor.

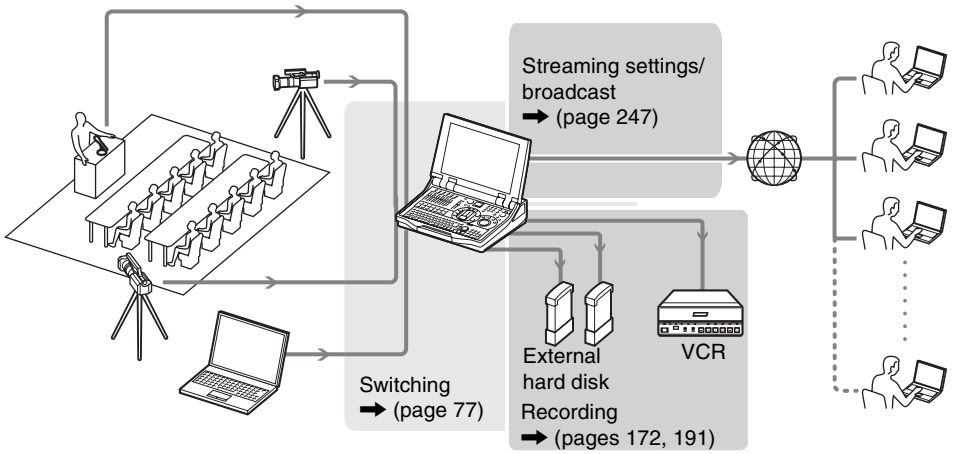
Principal functions used: video switching (such as cut switching or picture-in-picture), audio mixing, RGB input/output



Internet live broadcast

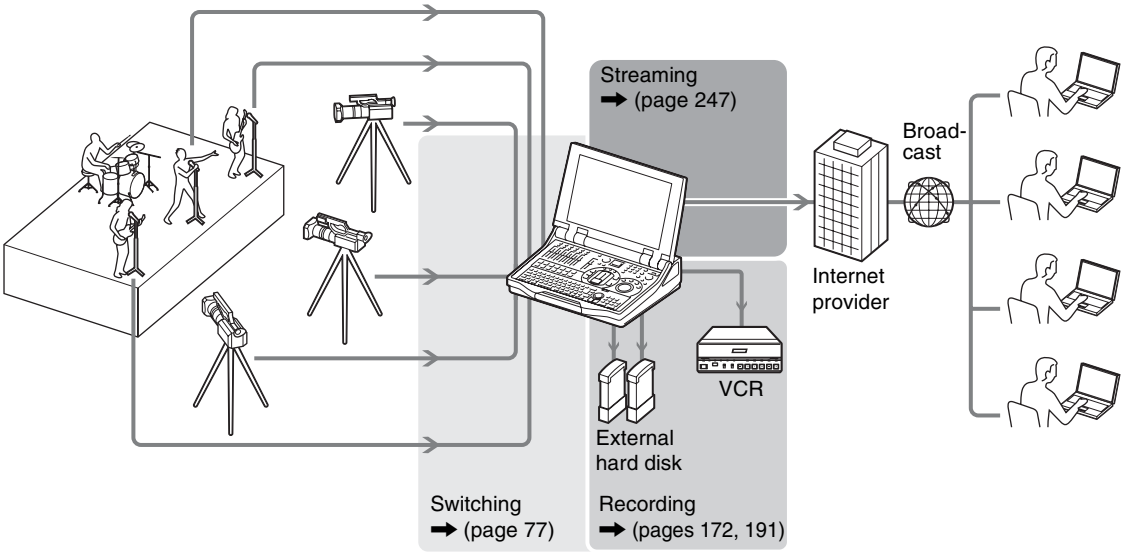
This unit includes a streaming server function. For broadcast to small audiences (about 20 people) over an intranet, this unit can be used as the streaming server without requiring an external server.

Principal functions used: video switching (such as a wipe transition), audio mixing, streaming encode, streaming server



For the broadcast of things like live events to large audiences, you can broadcast via a streaming server (Helix server).

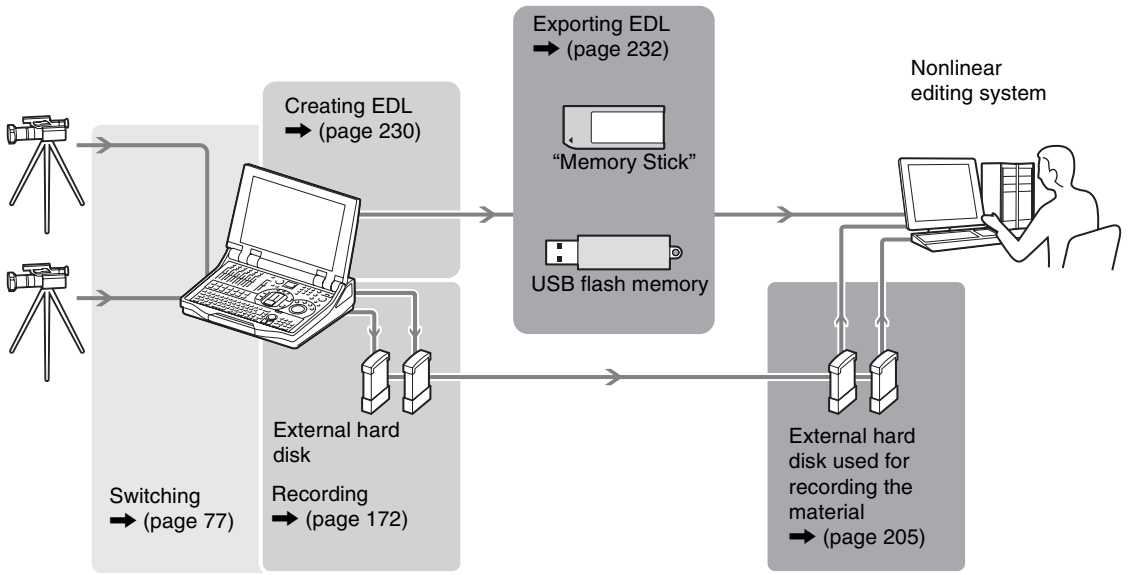
Principal functions used: video switching (such as a mix transition), audio mixing, streaming encode, camera presets



Simplification of re-editing after events

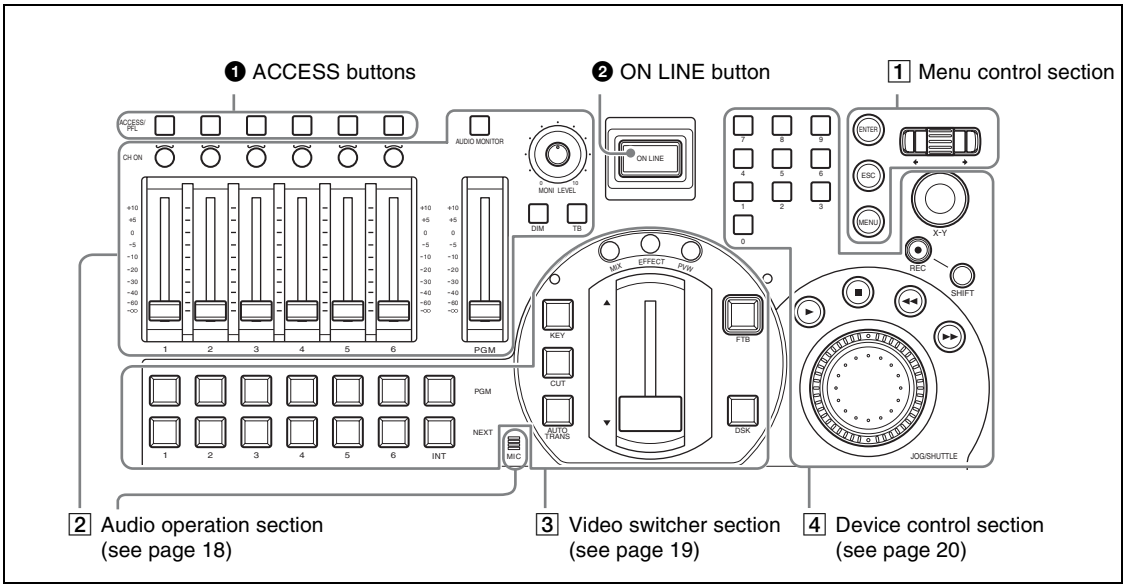
If you export an EDL (Edit Decision List) file with switching information from an event saved and then use it on a nonlinear editing system in combination with a material file recorded on an external hard disk, you can complete re-editing work by just modifying the EDL.

Principal functions used: creating EDL, exporting EDL



Names and Functions of Parts

Front Panel



❶ ACCESS buttons

These buttons are used for displaying the ACCESS menu (page 35) and monitoring audio (page 211). When you press an ACCESS button in one of columns 1 to 6, the ACCESS menu appears allowing adjustment of the related video and audio settings.

Information on input signals appears on the left side of the menu. If you hold down the ACCESS button in one of columns 1 to 6 for 0.5 seconds or more, you can monitor the audio assigned to the channel fader in the same column, and display the audio level meter for that channel only.

By holding down two or more ACCESS buttons simultaneously, you can monitor multiple audio channels.

❷ ON LINE button

This button has the following functions.

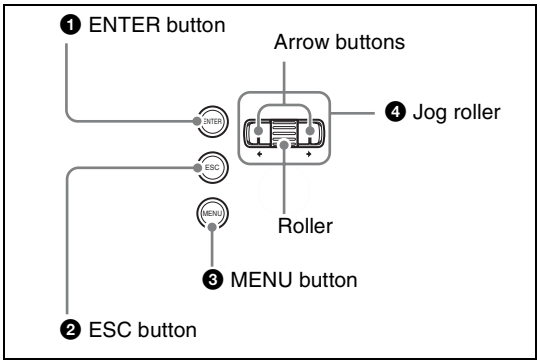
- Execute/stop streaming broadcast (page 261)
- Start/stop recording of material and program output to external hard disks (page 177)
- Start/stop recording to VCRs connected to the DV connectors (page 195)
- Start/end EDL creation (page 231)

You can also start all these functions simultaneously.

1 Menu control section

Use these controls to operate the top menus and ACCESS menus.

For details of operations, see "Menu Operations" (page 34).



❶ ENTER button

This button confirms an item or input value in menu operations.

❷ ESC button

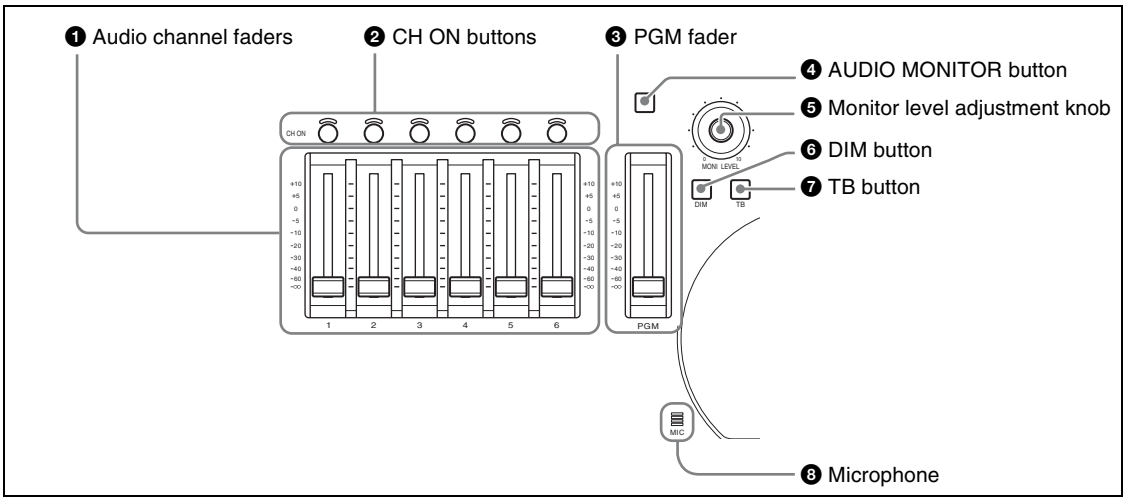
This button closes the top menu and ACCESS menu or cancels numeric and character input and returns to one level above.

Furthermore, pressing the ON LINE button while holding down the ESC button enables you to forcibly stop the following operations.

ESC + ON LINE buttons	• Stop recording to an external hard disk • Stop recording to a VCR • Stop streaming • Stop EDL creation

2 Audio operation section

Use these controls for audio settings and operations.



❶ Audio channel faders

These buttons adjust the input levels of the audio assigned to channels 1 to 6, in the range from –∞ to +10 dB (page 171).

For details of audio signal assignment, see "Audio Signal Related Settings" (page 71).

❷ CH ON buttons

These buttons select whether the audio channels 1 to 6 are enabled or disabled.

Pressing a button enables the audio assigned to the corresponding audio channel. Channels for which the button is not lit are disabled (page 171).

You can also link the enabling of the audio channels with the switching of the PGM selection buttons (page 74).

❸ PGM fader

This button adjusts the overall audio output level of the program output, in the range from –∞ to +10 dB (page 171).

❸ MENU button

This toggles the top menu on or off.

❹ Jog roller

Turn the roller up and down to select a menu item. Pressing the roller like a button has the same effect as pressing the ENTER button.

Use the arrow buttons when a menu operation requires movement to left or right.

❹ AUDIO MONITOR button

This button switches the monitoring target. Pressing if cycles the audio to be monitored through the sequence PGM ⟶ AUX1 ⟶ AUX2 ⟶ MIX ⟶ PGM (page 210).

❺ Monitor level adjustment knob

This button adjusts the level of the monitor output and the output from the internal speakers and from the headphones (page 210).

❻ DIM button

This button enables the "audio attenuate" function. This reduces each of the level of the monitor output and the output from the internal speakers and from the headphones by 20 dB.

❼ TB button

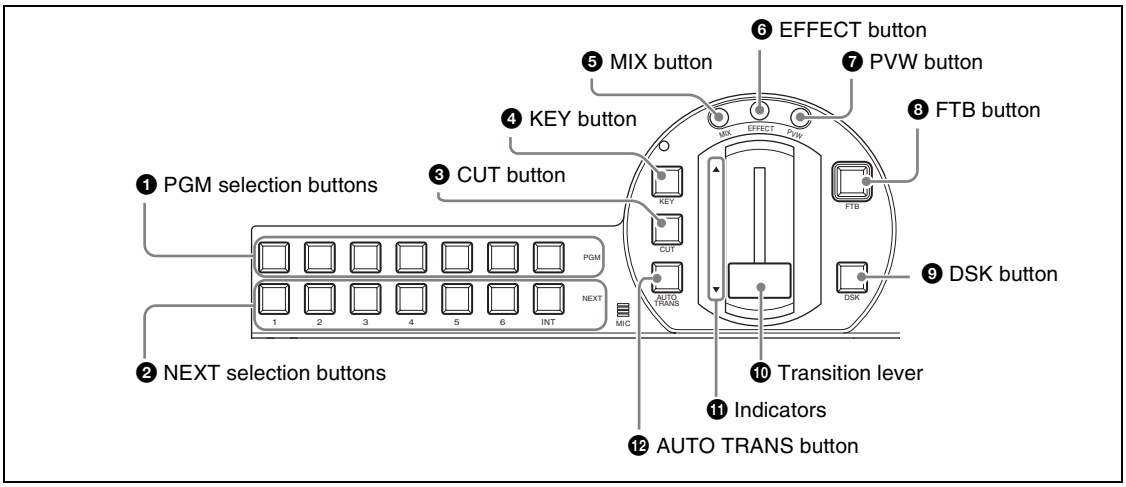
This button lets you to speak while communicating on an external intercom system. While the TB button is lit, sound from the front panel microphone and headset microphone is output over the intercom system (page 207).

❽ Microphone

This button lets you speak on an external intercom system. While the TB button is lit, sound from the microphone is output over the intercom system (page 207).

3 Video switcher section

This switches video.



❶ PGM selection buttons

These buttons select the video which will be displayed on the program output (page 78). Buttons 1 to 6 select the corresponding assigned video, and the INT button selects a video image generated internally by this unit (color matte, color bars, graphics files).

When you press one of these buttons, lighting it red, the video assigned to the button is sent to the program output.

For details of video assignment, see "Video Signal Related Settings" (page 67).

❷ NEXT selection buttons

The NEXT selection buttons have the following functions.

- Selecting the video to be output on the program output after next switching transition (page 79)
- Selecting the video to be used for picture-in-picture (page 86)
- Selecting the video to be used when inserting a key in the program output (page 99)
- Specifying a camera to be controlled during camera control operations (page 158)
- Selecting the video for recording or playback (pages 179, 181)

Buttons 1 to 6 select the corresponding assigned video, and the INT button selects a video image generated internally by this unit (color matte, color bars, graphics files).

A graphic file (SD_Safe_Area.tga) is provided for displaying safe areas.

❸ CUT button

This button instantaneously switches the video (page 77).

❹ KEY button

This button effectuates keying (page 99). When this key lights green, the NEXT selection buttons, MIX button, AUTO TRANS button, CUT button, and transition lever are then assigned to keying.

❺ MIX button

This button effectuates a dissolve (gradually blending a new video into the existing image). When applying an effect it gradually blends in the effect (page 81).

❻ EFFECT button

This button enables an effect other than dissolve in a transition or when applying an effect (page 82). You can also use it as a shortcut to the [Effect Pattern] menu (page 85).

❼ PVW button

With this button you can check the result of keying and picture-in-picture before switching it to program output, on the PVW viewer (page 110).

❽ FTB button

This button fades the video in from or out to a black screen ("fade-to-black") (page 89).

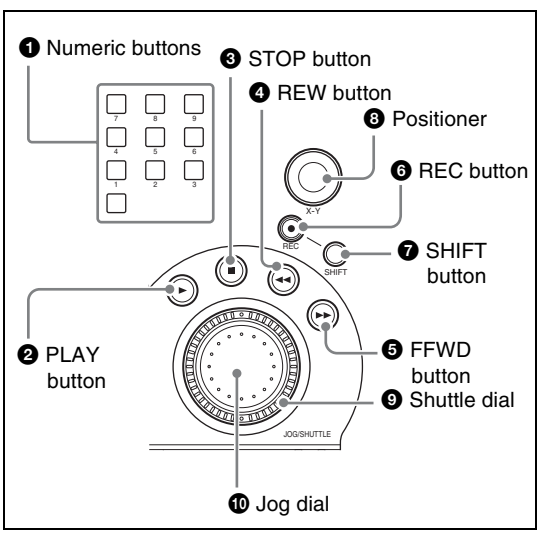
❾ DSK button
This button add is used to images or text to the program output video (page 90). You can use it to superimpose text and so on.

❿ Transition lever
This lever allows you to manually execute a transition or effect (page 81).

⓫ Indicators (▽△)
These indicators show the direction in which the transition lever is being moved. Moving the transition lever in the direction of the lit indicator starts the transition or effect.
However, supposing you press the AUTO TRANS button after moving the transition lever to the middle, for example, an inconsistency between the position of the fader and the application of the effect will arise and both indicators will light.

⓬ AUTO TRANS button
This button carries out an automatic transition with a preset transition time, either from one video to another or when applying an effect (page 81).

4 Device control section
Use these controls to remotely control a camera with VISCA support connected to this unit (page 158), perform hard disk operations (material recording, file playback) (pages 179, 181), perform VCR playback operations (page 197), or to access graphics files quickly (page 94).



❶ Numeric buttons
These buttons are used to access graphics files quickly, register and recall video effect snapshots, register and recall camera presets, reset cameras, and cue up files (pages 94, 113, 160, 165, 187).

❷ PLAY button
This button plays back a file at normal speed. Hold down the REC button and press this button, to start recording on the hard disk (page 178).

❸ STOP button
This button stops file playback. Press shift and then press this button to switch the source viewer back from viewing a file on the hard disk to normal input (page 183).
While recording to an external hard disk, press this button while holding down the REC button to stop recording (page 180).
While recording program output, press this button while holding down the SHIFT and REC buttons to stop recording (page 178).

❹ REW button
During file playback, play back fast in the reverse direction. Each time you press, the reverse speed increases (in six steps) (page 183).

❺ FFWD button
During file playback, play back fast in the forward direction. Each time you press, the playback speed increases (in six steps) (page 183).

❻ REC button
This button is used to start or stop the external hard disk recording (page 179).

REC + NEXT selection buttons	Reserve or cancel material recording
REC + PLAY buttons	Start material recording
REC + STOP buttons	Stop material recording
SHIFT + REC + PLAY buttons	Start program output recording
SHIFT + REC + STOP buttons	Stop program output recording

❼ SHIFT button
This button is pressed while using other controls to perform the following operations.

SHIFT + jog dial	Aperture (iris) adjustment on camera with VISCA support
SHIFT + numeric buttons (1 to 6)	• Set camera presets • Register hard disk and VCR cue-up points
SHIFT + numeric buttons (1 to 9)	• Register quick access graphics files • Register video effect snapshots
SHIFT + numeric buttons (0)	Camera reset
SHIFT + numeric buttons (8)	Register a start point for auto repeat
SHIFT + numeric buttons (9)	Register an end point for auto repeat
SHIFT + REW buttons	• Skip to the beginning of a file • Move back one frame on a VCR
SHIFT + FFWD buttons	• Skip to the end of a file • Move forward one frame on a VCR
SHIFT + STOP buttons	• Close a file • Pause playback on a VCR
SHIFT + ENTER buttons	• Delete preset data simultaneously • Process all files including files that will be overwritten
SHIFT + ESC buttons	Process all files excluding files that will be overwritten
SHIFT + REC + PLAY buttons	Start program output recording
SHIFT + REC + STOP buttons	Stop program output recording

❽ Positioner

This control is used to pan or tilt the camera. You can also control the speed of the camera by adjusting how hard you press this button (page 159).

This control can also be used to change the display positions for picture-in-picture and logos (pages 88, 99), and to move the Auto Chroma Key cursor (page 106).

❾ Shuttle dial (outer ring)

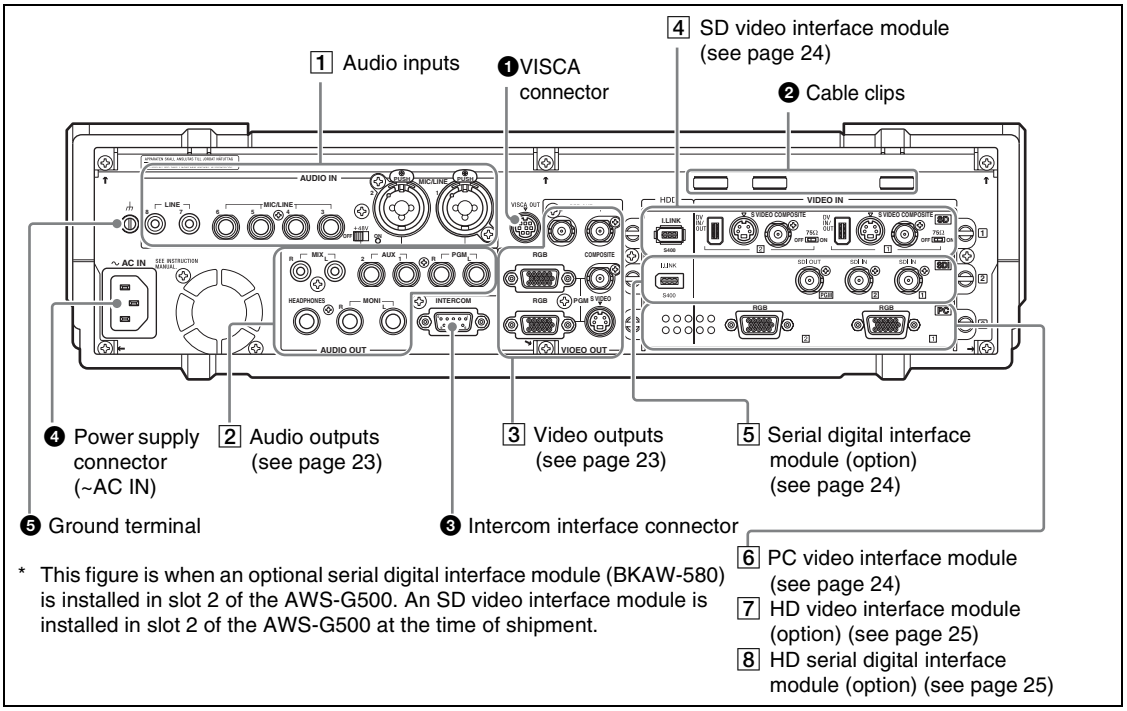
This dial controls the camera zoom.

During file or VCR playback, turning this dial clockwise plays the file in the forward direction at a speed that corresponds to the amount the dial was turned and turning this dial counterclockwise plays the file in the reverse direction at a speed that corresponds to the amount the dial was turned (pages 159, 183).

❿ Jog dial (inner dial)

This dial controls the camera focus and iris (page 159) and performs playback operations for VCRs or files stored on the external hard disk (page 183).

Rear Panel



* This figure is when an optional serial digital interface module (BKAW-580) is installed in slot 2 of the AWS-G500. An SD video interface module is installed in slot 2 of the AWS-G500 at the time of shipment.

❶ VISCA connector

To connect the chain of cameras with VISCA support to this unit for remote control operation, connect the VISCA cable (page 58).

❷ Cable clips

Use these clips to prevent cables from accidentally disconnecting (page 64).

❸ Intercom interface connector

Connect an external intercom system (page 207).

❹ Power supply connector (~AC IN)

Use to connect to an AC outlet (page 45).

Caution

When using a DC-AC inverter, the use of a 50 Hz (±3%) or 60 Hz (±3%) sine wave is recommended. Do not use a general-purpose inverter with a square output waveform.

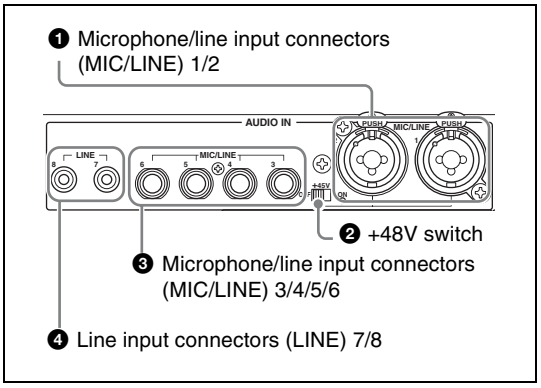
❺ Ground terminal

When using this unit, connect the ground terminal to a grounding lead.

Caution

The ground terminal is close to the audio input connectors, so when connecting the grounding lead be careful not to touch the audio input connectors.

1 Audio inputs



❶ Microphone/line input connectors (MIC/LINE) 1/2 (XLR 3-pin, TRS shared balanced type)

Input an analog audio signal from a microphone or audio device.

❷ +48V switch

Use this switch when a capacitor microphone requiring a power supply is connected to the microphone/line input connectors (MIC/LINE) 1/2. When this is in the ON position, +48V is supplied.

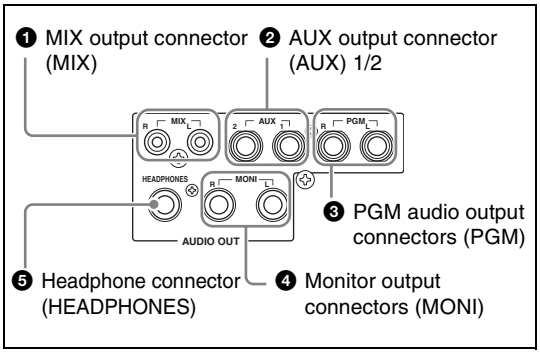
❸ Microphone/line input connectors (MIC/LINE) 3/4/5/6 (TRS balanced type)

Input an analog audio signal from a dynamic microphone or audio device.

❹ Line input connectors (LINE) 7/8 (RCA)

Input an analog audio signal from an audio device.

2 Audio outputs



❶ MIX output connector (MIX) L/R (RCA)

These connect to an external acoustic device to output audio signals (page 209).

❷ AUX output connector (AUX) 1/2 (TRS, balanced)

These connect to an external acoustic device to output audio signals. The output level can be adjusted (page 208).

❸ PGM audio output connectors (PGM) L/R (TRS, balanced)

These output the final audio (program audio) created by this unit (page 208).

❹ Monitor output connectors (MONI) L/R (TRS, balanced)

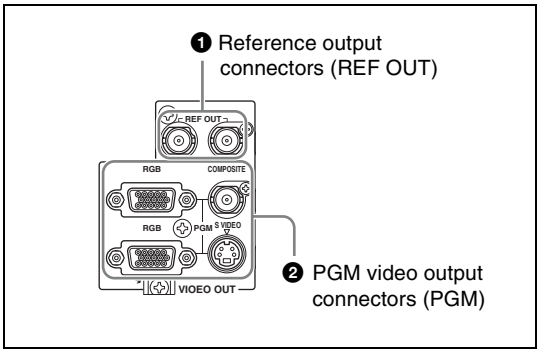
These provide monitor outputs of any of the PGM/AUX1/AUX2/MIX audio (page 210).

❺ Headphone connector (HEADPHONES) (standard phone jack)

This outputs one of the PGM/AUX1/AUX2/MIX audio (page 209).

The output level can be adjusted with the front panel monitor level adjustment knob (MONI LEVEL) (page 210).

3 Video outputs



❶ Reference output connectors (REF OUT) × 2

These output either a 60 Hz (NTSC) or 50 Hz (PAL) reference signal to match the program output signal.

❷ PGM video output connectors (PGM)

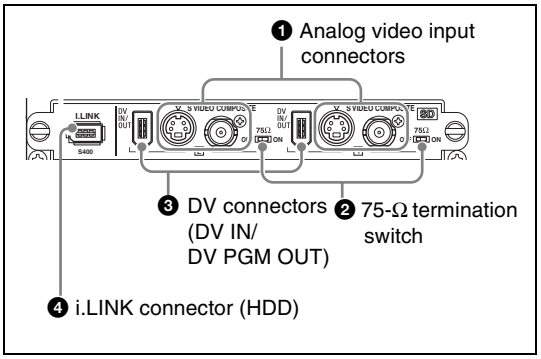
- Composite video output connector (COMPOSITE) (BNC) × 1
- S-video output connector (S VIDEO) (S connector) × 1

  These output the final program (PGM) video. You can switch to NTSC (60 Hz) or PAL (50 Hz) (page 71).
- RGB output connectors (RGB) (D-sub 15-pin) × 2

  These output the final program (PGM) video as analog RGB signals and video RGB signals. Connect a projector or external display.

  The following signals can be output (page 71).
  - XGA (1,024 × 768) 60 Hz/75 Hz
  - SXGA (1,280 × 1,024) 60 Hz
  - WXGA (1,280 × 768) 60 Hz/75 Hz
  - 15k RGB 50 Hz/59.94 Hz

4 SD video interface module (BKAW-570)



❶ Analog video input connectors
Composite video input connectors (COMPOSITE) (BNC) × 2
S-video input connectors (S connector) × 2
Input analog video signals.

❷ 75-Ω termination switch
Set this switch to the OFF position when using a loop-through connection for a video monitor or the like by connecting a branch connector to the composite video input connector (COMPOSITE).

Note

The factory default setting is ON.
Use the end of a sharp implement such as a pen to operate the switch.

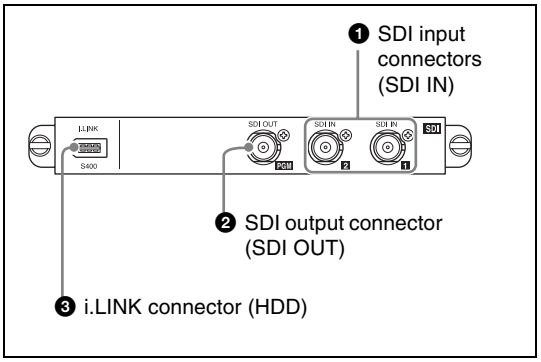
❸ DV connectors (DV IN/DV PGM OUT) (i.LINK 6-pin) × 2
Input and output digital video audio signals.

Notes

- Only one of the Composite/S-video/DV inputs can be used for each of IN1and IN2.
- If the DV connector is set as the output, material cannot be recorded from composite and S-video connectors (page 193).

❹ i.LINK connector (HDD) (i.LINK 6-pin) × 1
If an external hard disk is connected, material and program output can be recorded.
The following three types of recording are available for an external hard disk.
- Manually record video input to the same interface module in combination with audio that has the same source number as the video (page 178).
- Manually record program output (page 177).
- Simultaneously record material and program output (ON LINE recording) (page 177).

5 Serial digital interface module (BKAW-580) (Option)

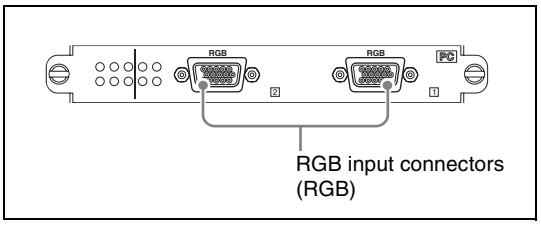


❶ SDI input connectors (SDI IN) (BNC) × 2
Inputs SDI signals.

❷ SDI output connector (SDI OUT) (BNC) × 1
Outputs final video and audio (program video + audio) as SDI signals (page 193).

❸ i.LINK connector (HDD) (i.LINK 6 pins) × 1
If an external hard disk is connected, material and program output can be recorded.
The following three types of recording are available for an external hard disk.
- Manually record video input to the same interface module in combination with audio that has the same source number as the video (page 178).
- Manually record program output (page 177).
- Simultaneously record material and program output (ON LINE recording) (page 177).

6 PC video interface module (BKAW-550)



RGB input connectors (RGB) (D-sub 15-pin) × 2

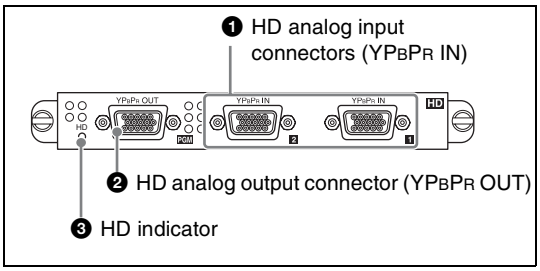
Input analog RGB signals from a computer or other source. The following image size and frequency combinations are supported.

- XGA (1,024 × 768) 60 Hz, 70 Hz, 75 Hz
- SXGA (1,280 × 1,024) 60 Hz, 75 Hz
- WXGA (1,280 × 768) 60 Hz

Caution

WXGA inputs will be vertically reduced approximately 6%.

7 HD video interface module (BKAW-560) (option)



❶ HD analog input connectors (YPBPR IN) (D-sub 15-pin) × 2

These input HD analog signals. The following signal formats for input are supported.

- 720/59.94p, 720/50p
- 1080/59.94i, 1080/50i

❷ HD analog output connector (YPBPR OUT) (D-sub 15-pin) × 1

This outputs HD analog signals. The following signal formats for output are supported.

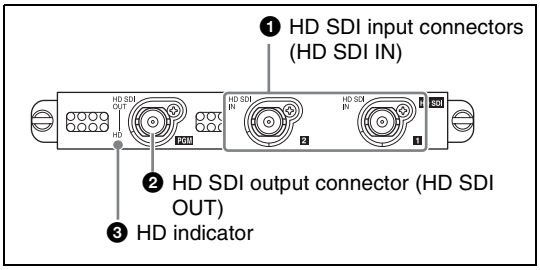
- 720/59.94p, 720/50p
- 1080/59.94i, 1080/50i

❸ HD indicator

This lights or turns off in the following situations.

Lights	When output of HD analog signals is possible (16:9 HD mode (page 53)).
Turns off	When output of HD analog signals is not possible (4:3 and 16:9 SD modes (page 53)). A black image signal is output.

8 HD serial digital interface module (BKAW-590) (option)



❶ HD SDI input connectors (HD SDI IN) (BNC) × 2

These input HD SDI signals. The following signal formats for input are supported.

- 720/59.94p, 720/50p
- 1080/59.94i, 1080/50i

❷ HD SDI output connector (HD SDI OUT) (BNC) × 1

This outputs HD SDI signals. The following signal formats for output are supported.

- 720/59.94p, 720/50p
- 1080/59.94i, 1080/50i

❸ HD indicator

This lights or turns off in the following situations.

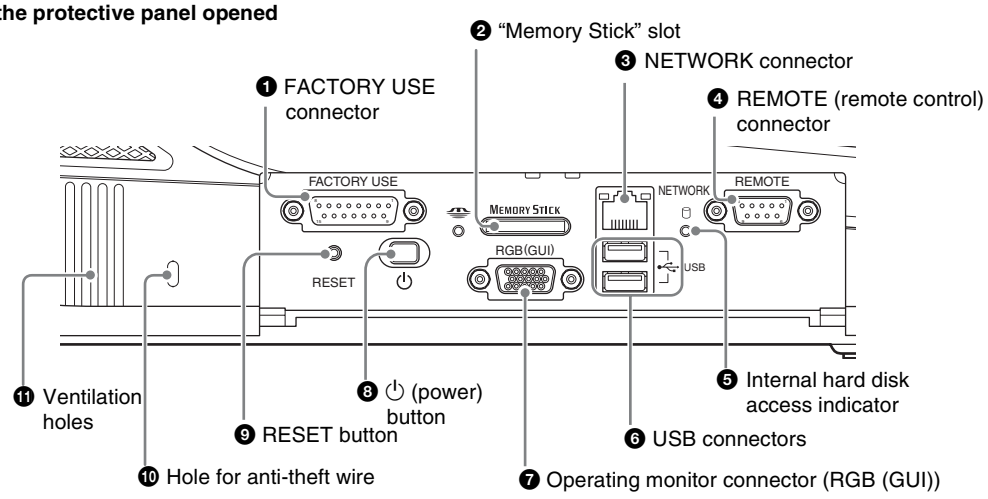
Lights	When output of HD SDI signals is possible (16:9 HD mode (page 53)).
Turns off	When output of HD SDI signals is not possible (4:3 and 16:9 SD modes (page 53)). A black image signal is output.

Caution

If the HD SDI IN connectors of the HD serial digital interface module are open, a malfunction may occur in the HD SDI circuit due to noise from the nearby equipment. When using this module, be sure to attach 75 Ω terminators to the HD SDI IN connectors so as not to be open.

Side Panel

With the protective panel opened



❶ FACTORY USE connector

Inputs and outputs GPI signals.

- Connecting this connector and the tally connector of a CCU (camera control unit) or other device enables the tally lamp of the camera to light (page 167).
- When an external device is connected, you can perform PGM and NEXT selection button operations from the external device (page 169).

❷ "Memory Stick" slot

This slot takes a "Memory Stick." Use it for upgrading the operating software (page 270), importing font files (page 155), exporting/importing job data (pages 227, 228), exporting EDL, importing graphics and logo files (page 235), exporting graphics files created with Text Typing Tool (page 129), exporting VOD files (page 238), etc.
While the "Memory Stick" is being accessed, the access indicator to the left of the slot lights.

❸ NETWORK connector (RJ-45)

Connect an external network adaptor or router. This supports 10Base-T and 100Base-TX Ethernet.
The green indicator blinks while the network is active.
An amber LED lights while the unit is connected by 100Base-TX.

CAUTION

For safety, do not connect the connector for peripheral device wiring that might have excessive voltage to this port. Follow the instructions for this port.

ATTENTION

Par mesure de sécurité, ne raccordez pas le connecteur pour le câblage de périphériques pouvant avoir une tension excessive à ce port. Suivez les instructions pour ce port.

VORSICHT

Aus Sicherheitsgründen nicht mit einem Peripheriegerät-Anschluss verbinden, der zu starke Spannung für diese Buchse haben könnte. Folgen Sie den Anweisungen für diese Buchse.

CAUTION

When you connect the network cable of the unit to peripheral device, use a shielded-type cable to prevent malfunction due to radiation noise.

❹ REMOTE (remote control) connector

This connector is provided for future functional expansion.

❺ Internal hard disk access indicator

This indicator lights while the internal hard disk is being accessed.

❻ USB connectors (USB) (USB compatible)

The upper connector is number 1, and the lower connector is number 2.
Use these connectors to connect a USB keyboard. Also use them for connecting USB flash memory, upgrading the operating software (page 270), importing font files (page 155), exporting/importing job data (pages 227, 228), exporting EDL, importing graphics and logo files (page 235), exporting graphics files created with Text Typing Tool (page 129), exporting VOD files (page 238), etc.

For details of the keyboards that can be used, consult your dealer or your Sony service representative.
When using the Text Typing Tool software, you can connect and use a USB mouse.

Caution

- These do not support input from a USB camera.
- A USB mouse cannot be used with the main software.

❼ Operating monitor connector (RGB (GUI)) (D-Sub 15-pin)

This connector outputs the operation screen to an external display at WXGA (1,280 × 800) size, at 60 Hz.
For information on which devices can be used, consult your dealer or your Sony service representative.

❽ ⏻ (power) button

This button powers the unit on or off. If you hold down the power button for at least 4 seconds, this forces a shutdown.
After a forced shutdown, the settings of the unit may not be preserved.

❾ RESET button

This button is provided for future functional expansion.

❿ Hole for anti-theft wire

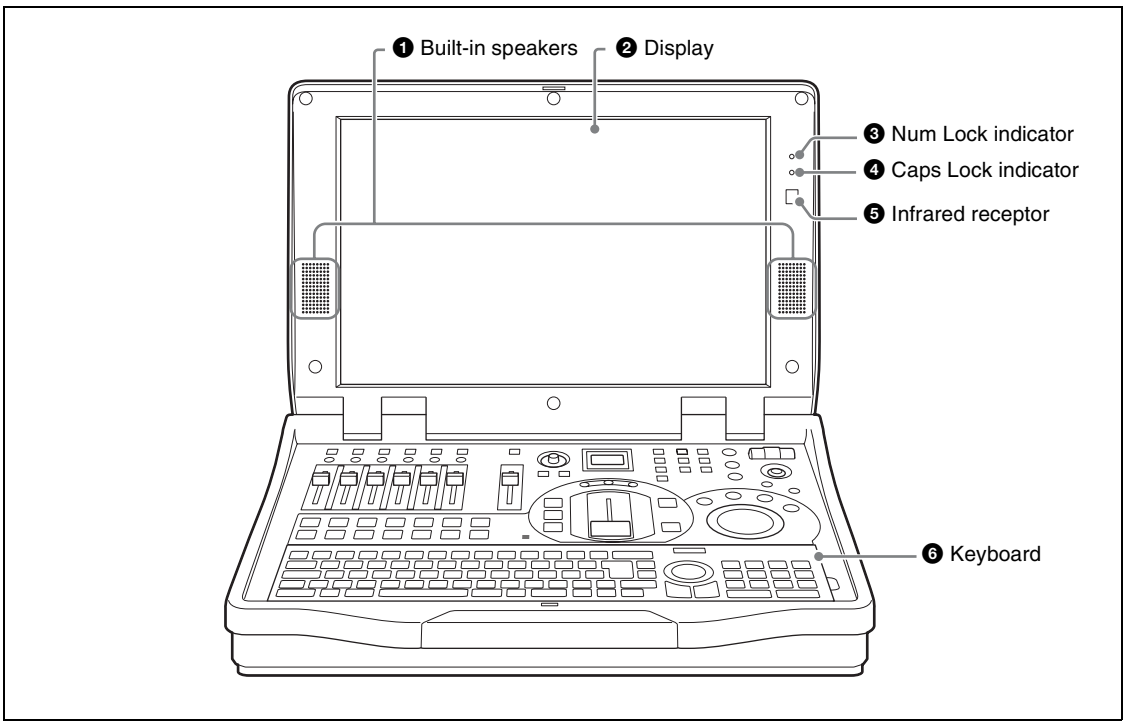
This hole accepts a standard anti-theft wire (3 mm × 7 mm).

⓫ Ventilation holes

Caution

Be careful not to obstruct the ventilation holes. If the ventilation holes are obstructed, the unit may overheat, leading to fire or breakdown.

Other Parts



❶ Built-in speakers

You can monitor the audio using these speakers. There is no output from the built-in speakers when a headphone is connected to the headphone connector.

❷ Display

This shows the operation screen (page 28).

❸ Num Lock indicator

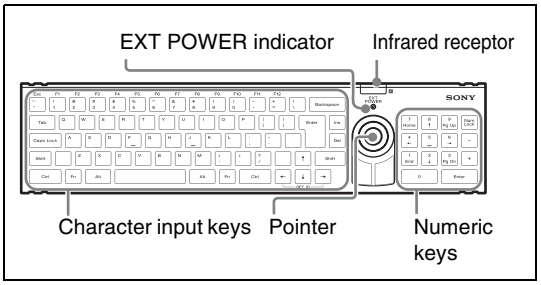
This lights green when the unit is in Num Lock mode.

❹ Caps Lock indicator
This lights green when the unit is in Caps Lock mode.

❺ Infrared receptor
This accepts signals from the keyboard supplied with this unit (page 48).

❻ Keyboard
Use this for text and numeric input.
You can also use the keyboard for menu operations (page 35).
While the keyboard is mounted to the unit, the EXT POWER indicator on the keyboard lights green.

When using Esc and the F1 to F12 keys, hold down the Fn key and press the required key in the topmost row.



For details on changing the keyboard language, see "Selecting the Language" (page 50).

Operation Screen

* This example screen shows the streaming settings displayed. Normally the streaming display cannot be viewed.

❶ Menu display
This displays the top menus (page 34), the INT material selection menu (pages 91, 215), the graphics preset menu (page 94), the camera guide menu (pages 158, 160), the HDD guide menu (page 181), and the VCR guide menu (page 197).

❷ Guidance object indication
The color of the guidance object indication has the following significance.

Amber: When a video subject to camera control (page 158), external hard disk control (page 178), or VCR playback control (page 197), or INT is selected with the NEXT selection buttons (while the KEY button is not lit).

Green: When a video subject to camera control, external hard disk control, or VCR playback control, or INT is specified with the NEXT selection buttons (while the KEY button is lit).

Off: When other than a video subject to camera control and external hard disk control or INT is specified with the NEXT selection buttons.

❸ Audio level meter

When monitoring the any of the PGM/AUX1/AUX2/MIX audio outputs or Pre Fader Listen (PFL) result, this shows the audio level. An indication below the meter shows which of PGM/AUX1/AUX2/MIX or PFL is being monitored. When the level exceeds the meter range, the uppermost indicator lights red (page 210).

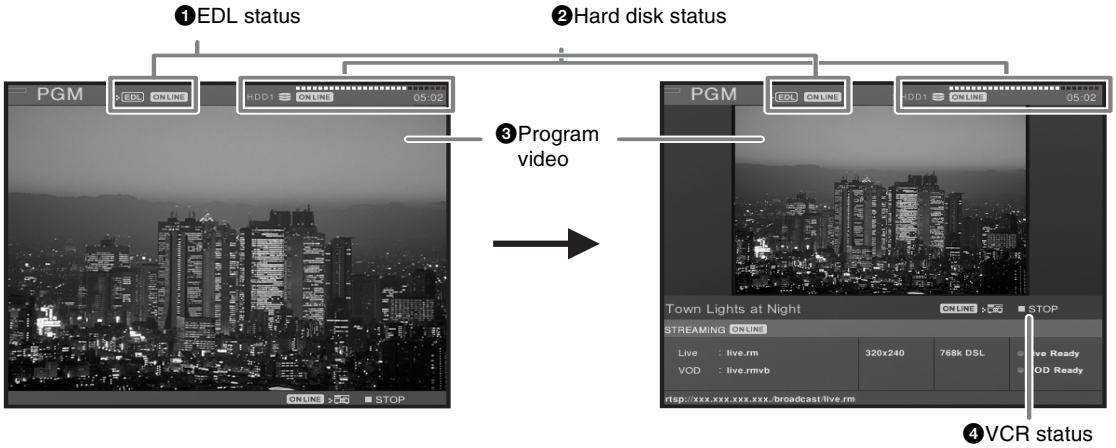
❹ KEY status display

The indicator lights red during keying to program output video. The number (1 to 6) or "INT" of the source selected for keying appears.

In addition, when [Chroma Key] (page 103) or [Luminance Key] (page 99) is selected for [Key Type] in the Video Effect menu, "Chroma" or "Lum" appears respectively.

1 PGM viewer

This shows a program output.



Normal

When configuring streaming settings

❶ EDL status

During EDL creation, this shows the status of the creation operation.

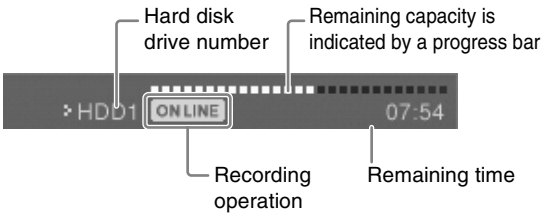
Creation operation indications

EDL ON LINE **:** ON LINE reservation status

EDL Writing **:** ON LINE execution status (EDL creation in progress)

❷ Hard disk status

During program output recording, this shows the hard disk status, remaining capacity, and recording operation.



Recording operation indications

REC PAUSE: Recording on standby

REC: Recording

ON LINE **:** ON LINE recording reservation (press the ON LINE button to enter a recording start state)

Unformatted: Formatting required

Disk Full: No disk space left (200 MB or less)
File Number Full: The number of files that can be recorded has been exceeded
Device Error: It became impossible to recognize the hard disk during recording

❸ Program video

Displays the program output video. The size of the video differs, depending on the PGM output aspect ratio setting (page 52).

- **When using 4:3 mode**
  The video is displayed at 480 × 360 pixels at about 30 fps (about 25 fps for PAL). During streaming, the size is 320 × 240 pixels.
- **When using 16:9 SD or 16:9 HD mode**
  The video is displayed at 426 × 240 pixels at about 30 fps (about 25 fps for PAL).

Caution

- Video displayed on the PGM viewer lags several frames behind the video output from the PGM video output connectors.
- In any of the video viewers displayed on the operation screen (PGM/PVW/source) the video may deteriorate, but this is an artifact of the display system. There is no effect on the video output from the program video output connectors.

❹ VCR status

While recording to a VCR, this shows the status of the recording operation.

Recording operation indications

: ON LINE reservation status (You can start recording by pressing the ON LINE button.)

: ON LINE execution status (Recording to VCR in progress.)

: Recording has stopped due to reasons including the tape ending

No Cassette: There is no videocassette, disc, or other medium inserted
No Response: Cannot control playback from the unit

Indications when manual playback controls are performed during recording control

: Recording

REC PAUSE: Recording on standby

: Stopped

No Cassette: There is no videocassette, disc, or other medium inserted
No Response: Interface has not been established

PLAY: Playback

STILL: Paused

: Fast forward

: Fast reverse

2 PVW viewer

This shows a preview of the video.
This allows you to check the input video selected to be shown next, keying, or picture-in-picture result before switching to program output.

❶ What the preview is showing

Amber: When showing the video selected by the NEXT selection button.

Green: When showing the video selected by the NEXT selection button when the KEY button is lit (video with a key inserted).

❷ Preview video

Under normal conditions, this displays the video selected with the NEXT selection buttons. The size of the video differs, depending on the PGM output aspect ratio setting (page 52).

- **When using 4:3 mode**
  The video is displayed at 320 × 240 pixels at about 15 fps (about 12 to 13 fps for PAL).
- **When using 16:9 SD or 16:9 HD mode**
  The video is displayed at 426 × 240 pixels at about 15 fps (about 12 to 13 fps for PAL).

❸ Status

The status shown here differs as follows depending on the video to be previewed.

When showing video from a remotely controlled VISCA compliant camera

The status of the VISCA compliant camera is shown.

No Response: Communication cannot be established with the camera.

Initializing: Appears at system startup and during camera reset.

When showing an INT graphics file

Loading: While file is loading

When playing a file on an external hard disk

The status of file operations is shown.

File operation indications

Opening: Opening a file

PLAY: Playback

STOP: Stopped

STILL: Playback speed is set to zero with the shuttle dial, or playback is stopped with the jog dial

JOG: Using the jog dial

x2: Fast forward (x2, x4, x8, x16, x32, x64)

x2: Fast reverse (x2, x4, x8, x16, x32, x64)

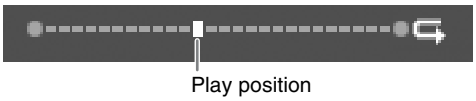
Note

The x1/8, x1/2, and x1 indications are also displayed while you are using the shuttle dial for playback operations.

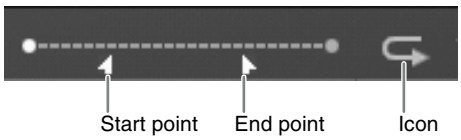
Play position

This shows the file play position.

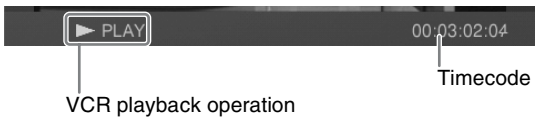
When the play position is at the beginning or end, ● of each end lights.



While auto repeat playback is set, an icon is displayed on the right side, and the positions of the start and end points are indicated if they have been set (page 184).



When performing playback on a VCR



VCR playback indications

PLAY: Playback

STOP: Stopped

STILL: Playback speed has been set to zero with the shuttle dial, or playback has been stopped with the jog dial

JOG: The jog dial operation in progress

: Fast forward

: Fast reverse

No Cassette: There is no videocassette, disc, or other medium inserted

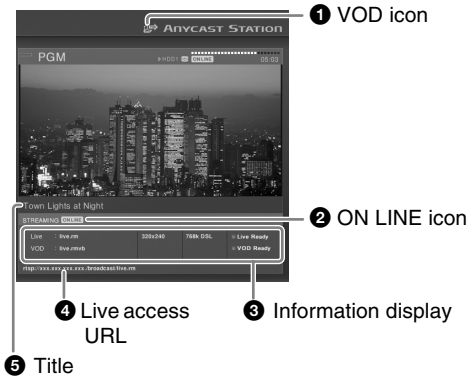
No Response: Interface has not been established

REC: Recording

REC PAUSE: Recording on standby

3 Streaming display

This shows the settings and status of the streaming broadcast.



❶ VOD icon

This appears when a VOD file has been saved and the internal server is running.

❷ ON LINE icon

This appears when streaming can be started after the ON LINE button has been pressed.

❸ Information display

This shows the following information:

- the file name registered in the top menu
- video size set in the top menu
- transfer rate set in the top menu
- the status of the server or encoder

Initializing	Starting server or encoder
Live Ready and/or VOD Ready	Server started up, and encoder ready
Starting	Encoder connecting to server
Broadcasting and/or Recording	Encoding
Stopping	Ending the encoder
Reconnecting	While re-establishing a connection to the server.
Failed	When a connection failed to be established because of the settings of the unit, the status of the network or external server, etc.
Error	The encoder had failed to end, or an error occurred.

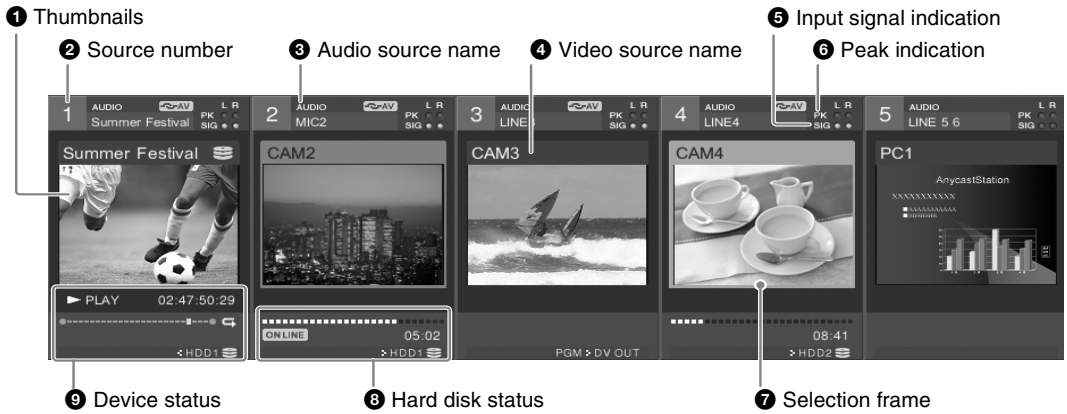
❹ Live access URL

This appears when the unit is used as a server for a broadcast. Audience members can view the broadcast by accessing this URL.

❺ Title

This shows the streaming title.

4 Source viewer



❶ Thumbnails

These show the video assigned to the selection buttons at 160 × 120 pixels, at about 10 fps (about 8 to 9 fps for PAL).

Note

The video display is squeezed for 16:9 input materials.

❷ Source number

This is the number (1 to 6 and INT) assigned to the source (video or audio).

These correspond to the PGM selection button, the NEXT selection button, and the audio channel fader numbers.

❸ Audio source name

This shows the name of the audio signal assigned to the channel fader (page 71) or the file name on the external hard disk (page 181).

❹ Video source name

In viewers 1 to 6, this shows the name of the video signal assigned to the selection button (page 67) or the file name on the external hard disk (page 181). For the INT viewer, this displays the color matte and color bars, or the graphics file name selected in the INT source selection menu.

❺ Input signal indication

If the input level of the audio assigned to a channel fader is -60 dBFS or more, this lights green, and you can check that there is an audio input.
For stereo you can check left and right channels separately; for monaural both channels are shown the same.

❻ Peak indication

If the input level of the audio assigned to a channel fader is -8 dBFS or more, this lights red.
For stereo you can check left and right channels separately; for monaural both channels are shown the same.

❼ Selection frame

Depending on the selection state, the frame color changes.

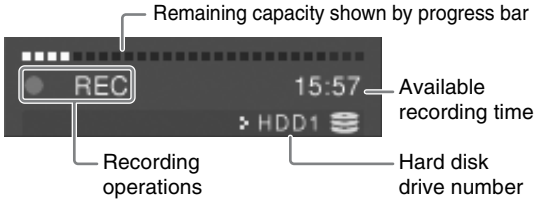
Red: Video selected with PGM selection button

Amber: Video selected with NEXT selection button

Green: Video selected with NEXT selection button when the KEY button is lit (video with a key inserted)

❽ Hard disk status

When an external hard disk is connected, this shows the status of the hard disk, the remaining recording capacity, and the recording operations.



Recording operation indications

REC PAUSE: Recording on standby

No Signal: Recording is stopped because there is no video signal input

REC: Recording

ON LINE **:** ON LINE recording reservation (press the ON LINE button to enter a recording start state)

Unformatted: Error requiring formatting

Disk Full: No disk space left (200 MB or less)

File Number Full: The number of files that can be recorded has been exceeded

Device Error: It became impossible to recognize the hard disk during recording

❾ Device status

The content displayed differs as follows depending on the material.

Video from a VISCA-compatible camera being controlled remotely

Displays the VISCA-compatible camera's status.

No Response: Communication cannot be established with the camera.

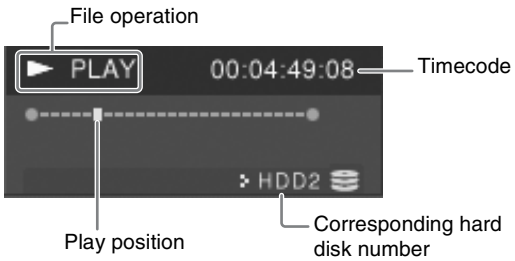
Initializing: Appears at system startup and during camera reset.

INT graphics file

Loading: File is loading

When playing a file on the external hard disk

Displays the status during file operation or VCR playback.



File operation and VCR playback indications

No Response: The VCR is not responding

No Cassette: There is no videocassette inside the VCR

Opening: Opening a file

PLAY: Playback

STOP: Stopped

STILL: During file operation

- Playback speed has been set to zero with the shuttle dial
- Playback has been stopped with the jog dial

During VCR playback

- Playback speed has been set to zero with the shuttle dial
- Playback has been stopped with the jog dial
- Playback has been paused with the SHIFT + STOP buttons
- Moved back one frame with the SHIFT + REW buttons
- Moved forward one frame with the SHIFT + FFWD buttons

JOG: Using the jog dial

x8: Fast forward (x2, x4, x8, x16, x32, x64)

x8: Fast reverse (x2, x4, x8, x16, x32, x64)

Notes

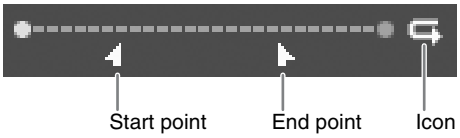
- The x1/8, x1/2, and x1 indications are also displayed while you are using the shuttle dial for playback operations.
- During VCR playback, only ▶▶ or ◀◀ appears.

Play position

This shows the file play position.

When the play position is at the beginning or end, ● of each end lights.

While auto repeat playback is set, an icon is displayed on the right side, and the positions of the start and end points are indicated if they have been set (page 184).



5 Effect display

This shows the video transition effect types and patterns and transition time (page 84).

Menu Operations

This unit includes top menus, which are used to make various operational settings, and ACCESS menus, which are used to make adjustments to the video and audio being input to this unit.

This section describes the basic operations common to these menus.

Displaying top menus and ACCESS menus

Top menus

Press the MENU button, to display the top menu in the menu display.

When you select and confirm an item in the top menu, submenus appear, three levels deep.

Note

You can set priority to be given to displaying the PVW viewer while submenus are open (page 113).

ACCESS menu

Press the ACCESS button corresponding to the number of input you want to adjust, to display the ACCESS menus, three levels deep, in the source viewer together with the viewer for that number.

Caution

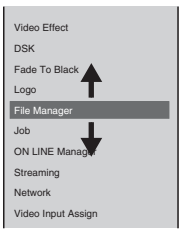
Starting with Software Version 2.00, the menu displays will differ depending on the interface module in use and video signal assignments.

Menu operations

Selecting a menu item

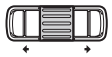
Turn the jog roller up or down.

You can also use the ↑ and ↓ keys on the keyboard.



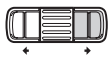
Confirming an item and proceeding to the next layer

Press the ENTER button.
or

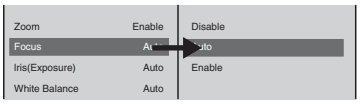


Press the jog roller.
or

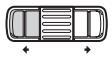
Press the → button by the jog roller.



You can also use the → key or ENTER key on the keyboard.

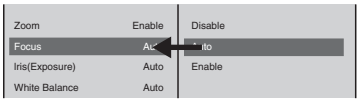


Returning to the higher level

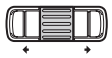


Press the ← button by the jog roller.

You can also use the ← key on the keyboard.

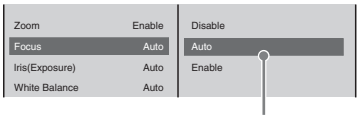


Confirming a selection

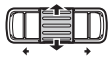


Press the ENTER button.
or
Press the jog roller.

You can also use the ENTER key on the keyboard.



Slider operation



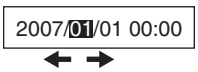
Turn the jog roller up or down.
You can also press ↑ or ↓ on the keyboard.

Entering numeric or text values

Moving the cursor to the next item:

Press the ← or → button by the jog roller.

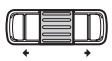
You can also press the ← or → keys while holding down Ctrl on the keyboard.



Entering numeric or text values:
Enter with the keyboard.

Confirmation:

Press the ENTER button.
or
Press the jog roller.



You can also use the ENTER key on the keyboard.

Closing a menu

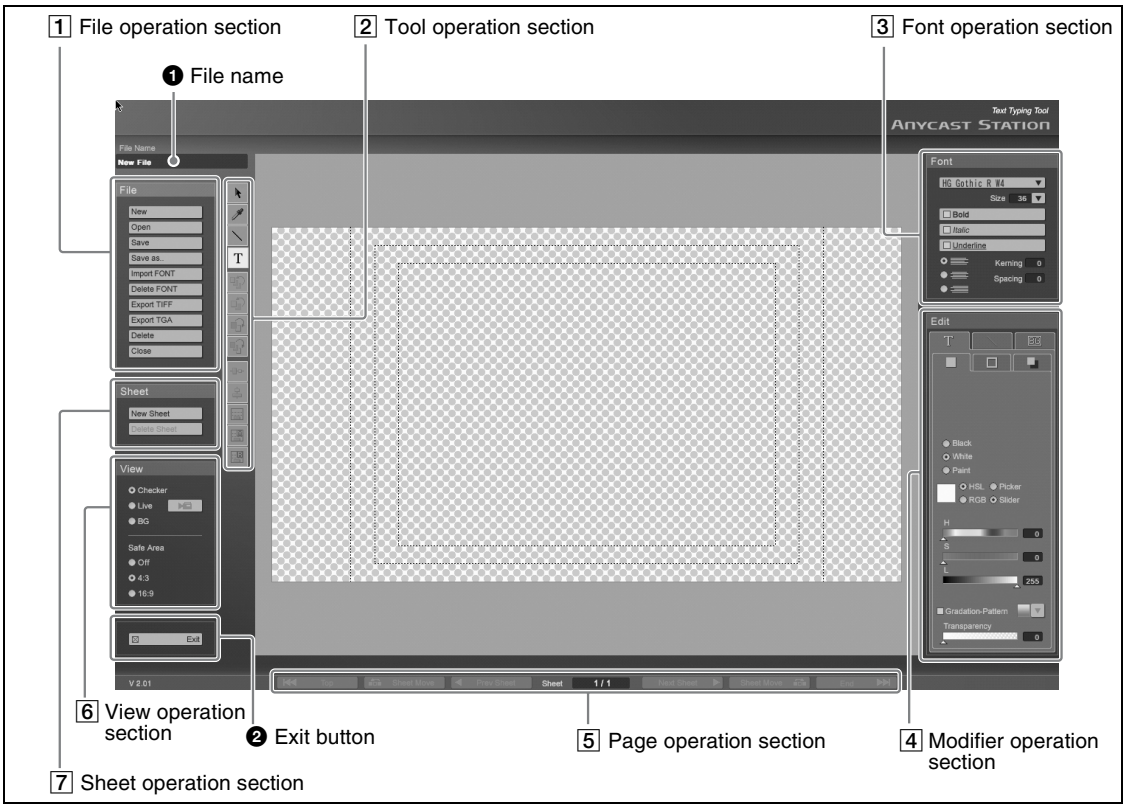
For a top menu: Press the MENU button or ESC button.

For an ACCESS menu: Press the same ACCESS button used to display, or the ESC button.

Notes

- Pressing an ACCESS button while the top menu is displayed closes the top menu and opens the ACCESS menu.
- Pressing the MENU button while the ACCESS menu is displayed closes the ACCESS menu and opens the top menu.

Operation Screen (Text Typing Tool Software)



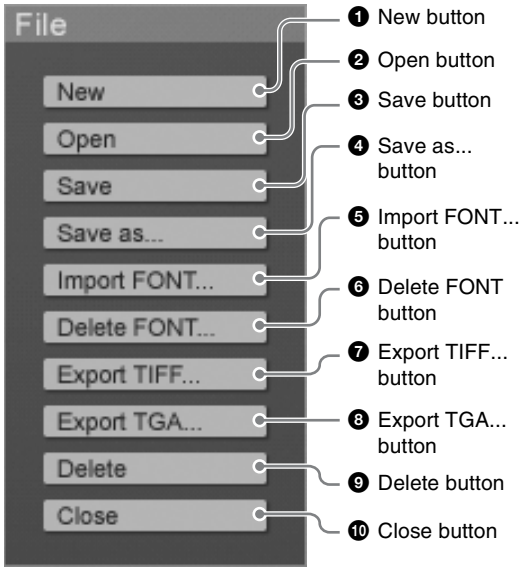
❶ File name

This shows the name of the open file.

❷ Exit button

Click this to exit the Text Typing Tool software, and start the Anycast Station main software.

1 File operation section



❶ New button
This creates a new file (page 124).

❷ Open button
This opens a previously saved file. A list of existing files appears (page 125).

❸ Save button
This saves a file (page 125).
The file is also simultaneously saved in the Anycast Station main software, and the file name appears in the INT selection menu.

❹ Save as... button
This saves the file with a different name (page 127).

❺ Import FONT... button
This imports a font file from a “Memory Stick” or USB flash memory (page 155).

❻ Delete FONT button
This deletes unwanted font files (page 156).

❼ Export TIFF... button
This saves the open file to a “Memory Stick” or USB flash memory in TIFF format (page 129).

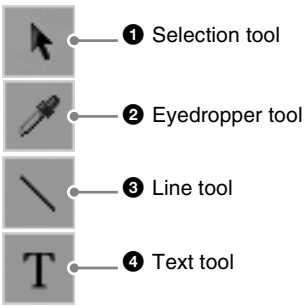
❽ Export TGA... button
This saves the open file to a “Memory Stick” or USB flash memory in TARGA format (page 129).

❾ Delete button
This deletes unwanted files (page 128).

❿ Close button
This closes the open file, and displays a new sheet.

2 Tool operation section

Select the tools needed to create and edit an object.



❶ Selection tool
When you click this, the mouse pointer changes to , and you can select, adjust, and move an object (page 123).
An orange frame appears around the selected object.

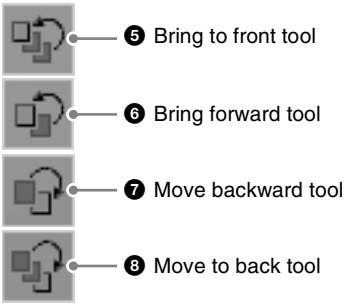
❷ Eyedropper tool
When you click this, the mouse pointer changes to , and you can set the color of the selected object to be the same as the color of another object or the background image (page 145).

❸ Line tool
You can create a straight line (page 137).
You can create three types of line: solid, broken, and dotted.

❹ Text tool
When you click this, you can create a text object (page 130).

Note

When the selection tool is selected, you can move the selected object with the keyboard arrow keys. Hold down the Shift key while pressing the arrow keys to speed up the movement.

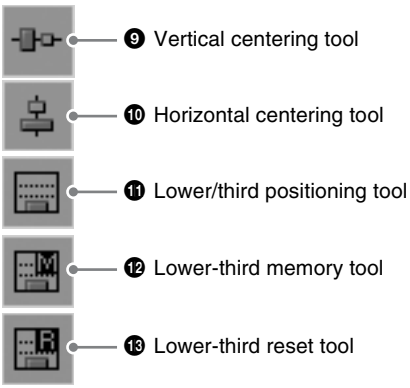


❺ Bring to front tool
This brings the selected object to the front (page 148).

❻ Bring forward tool
This brings the selected object one level forward (page 148).

❼ Move backward tool
This moves the selected object one level back (page 148).

❽ Move to back tool
This moves the selected object to the back (page 148).



❾ Vertical centering tool
This moves the selected object to the vertical center of the screen (page 149).

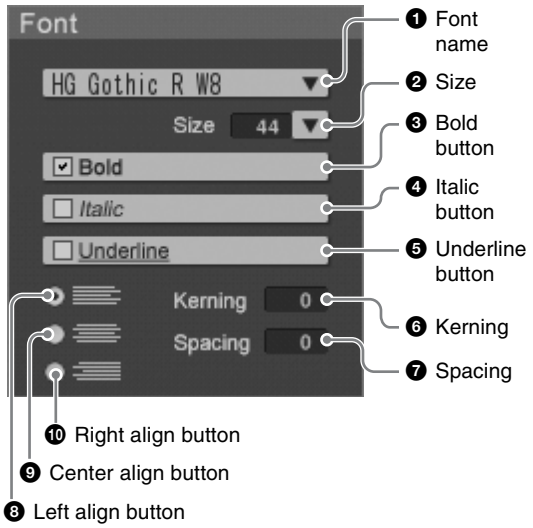
❿ Horizontal centering tool
This moves the selected object to the horizontal center of the screen (page 149).

⓫ Lower/third positioning tool
This moves the selected object so that its lowest part is aligned to a predetermined position (page 149).

⓬ Lower-third memory tool
If you select an object and then click this tool, the lowest part of the selected object is set as the lower-third position.

⓭ Lower-third reset tool
Restores the lower-third position to its default setting.

3 Font operation section



❶ Font name
This selects the font for a text object (page 131). The currently selected font always appears.

❷ Size
This selects the size of a text object (page 132).

❸ Bold button
This sets the text object to bold face (page 133).

❹ Italic button
This sets the text object to italic face (page 133).

❺ Underline button
This underlines the text object (page 133).

❻ Kerning
This sets the inter-character spacing of the text object (page 134).

❼ Spacing
This sets the line spacing of the text object (page 134).

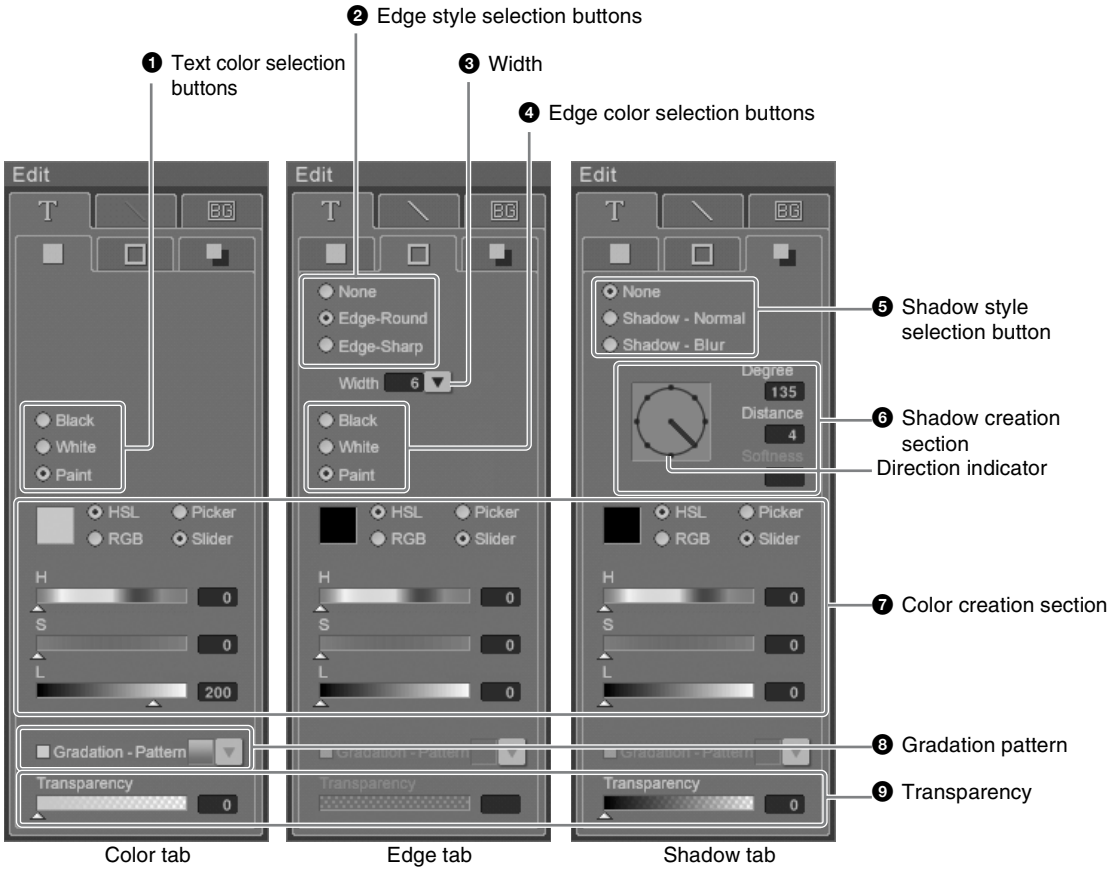
❽ Left align button
Aligns a text object comprising multiple lines to the left (page 134).

❾ Center align button
Aligns a text object comprising multiple lines to the center (page 134).

❿ Right align button
Aligns a text object comprising multiple lines to the right (page 134).

4 Modifier operation section
Click the mark on a tab to select it, and bring it to the front.
The modifier operation section has three tabs: [Text], [Line], and [BG]. The [Text] tab and [Line] tab are further divided into three tabs.

■ Text tab
You can set the color and other settings of a text object. This tab is divided into the Color tab, Edge tab, and Shadow tab.



❶ Text color selection buttons
Select the color of a text object (page 135).

❷ Edge style selection buttons
Select whether the object has an outline ([None] for no outline), and select the shape of corners (page 136).

❸ Width
Set the width of the outline. Select or enter a numeric value (page 136).

❹ Edge color selection buttons
Select the color of the outline (page 136).

❺ Shadow style selection button

Select whether the object has a shadow ([None] for no shadow), and select the style of the shadow (page 139).

❻ Shadow creation section

Adjust the angle, distance, and degree of blurring of the shadow (page 139).

Direction indicator: Click this to move the needle, and change the direction of the shadow of the object to that of the needle.

Degree: Set a numerical value for the direction of the shadow.

Distance: Set a numerical value for the distance of the shadow.

Softness: Set a numerical value for the degree of blurring of the shadow.

❼ Color creation section

When [Paint] is selected in the Color tab and Edge tab, you can create your own color for the outline and shadow of the object (page 144).

❽ Gradation pattern

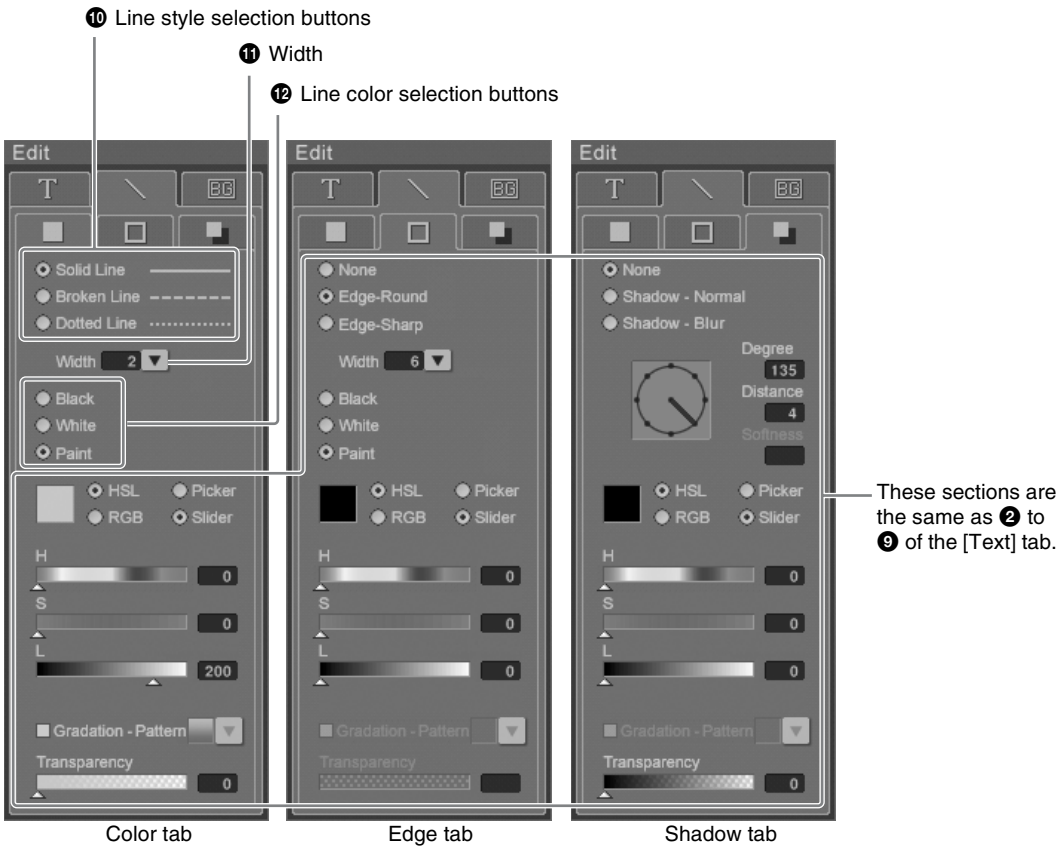
Apply gradation to the color of the object (page 147).

❾ Transparency

Set the transparency of each of the color and shadow of the object and the background created with paint (page 146).

■ Line tab

You can set the color and other settings of a line object. This tab is divided into the Color tab, Edge tab, and Shadow tab.



❿ Line style selection buttons

Select the color of the line object (page 138).

⓫ Width

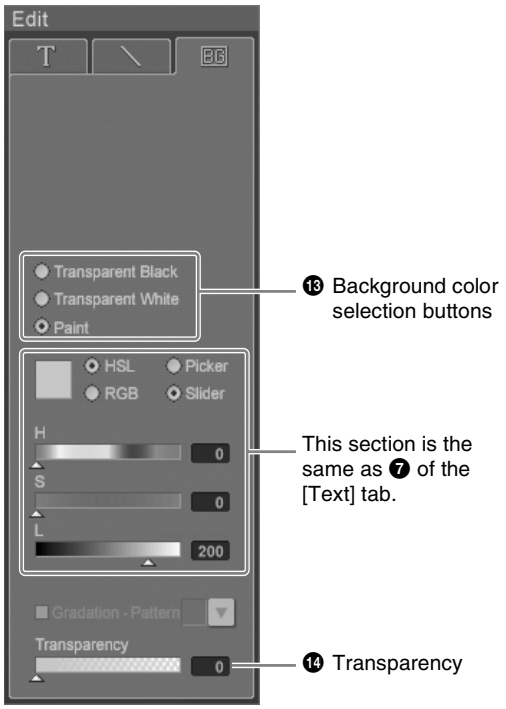
Set the line width of the line object. Select or enter a numeric value (page 138).

⓬ Line color selection buttons

Select the line style of the line object (page 139).

■ BG tab

You can set the background color.



⓭ Background color selection buttons

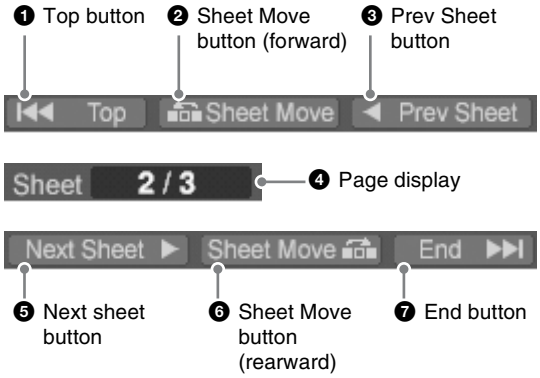
Select the background color (page 141).

⓮ Transparency

Set the transparency of the background created with paint.

5 Page operation section

This is used for sheet display, sheet turning, and resequencing.



❶ Top button

Click this to display the first sheet.

❷ Sheet Move button (forward)

Click this to exchange the currently displayed sheet with the previous sheet.

❸ Prev Sheet button

Click this to display the previous sheet.

❹ Page display

This shows the sheet number of the currently displayed sheet.

❺ Next Sheet button

Click this to display the next sheet.

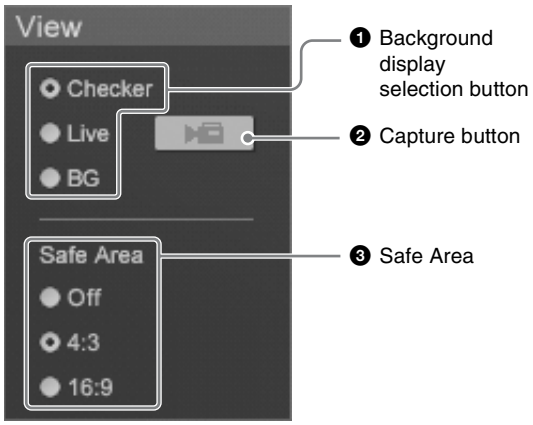
❻ Sheet Move button (rearward)

Click this to exchange the currently displayed sheet with the next sheet.

❼ End button

Click this to display the last sheet.

6 View operation section



❶ Background display selection button

Set the background display (page 152).

Checker: Displays a checkered pattern as the background.

Live: Displays the program output video of the main software (page 151).

BG: Displays the background selected on the [BG] tab (page 151).

❷ Capture button

The program output video image of the main software is captured each time this button is clicked (page 152).

❸ Safe Area

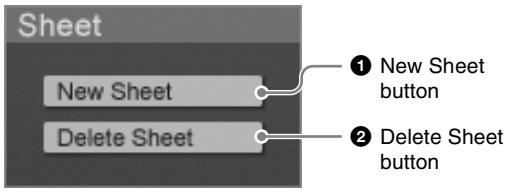
When this is selected, a dotted line shows the safe area (page 153).

Off: Does not display the safe area.

4:3: Displays a dotted line showing the safe area for 4:3 aspect ratio.

16:9: Displays a dotted line showing the safe area for 16:9 aspect ratio.

7 Sheet operation section



❶ New Sheet button

This adds a sheet to the open file (page 151). You can create up to 99 sheets.

❷ Delete Sheet button

This deletes the open sheet (page 151).

Preparations

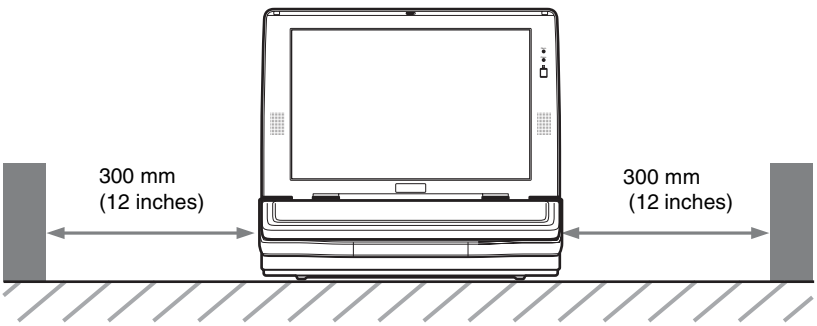
Chapter 2

Installation/Default Settings

This section describes the procedure for installing the unit, connecting the power cord, starting up the system, and setting the date, time, and video output signal format.

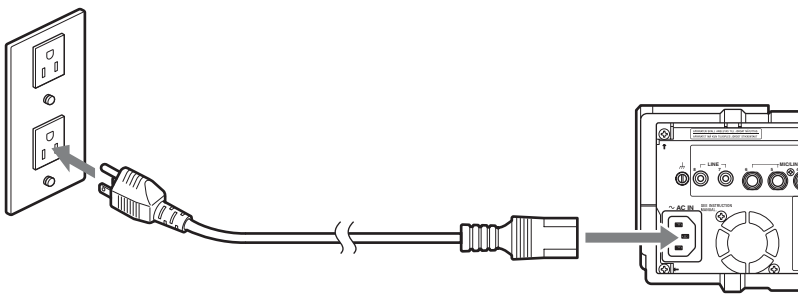
Installing the Unit

Install the unit in a level place. The unit weighs about 8 kg (17.7 lbs). Check that the installation location is strong and spacious enough to accommodate the unit before installing.
There are ventilation holes on both sides of the unit. To ensure adequate air flow, there must be a space of at least 300 mm (12 inches) on each side of the unit.



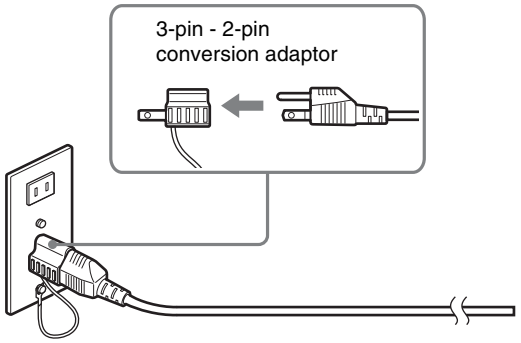
Connecting the power

Connect the power cord to the power inlet on the unit and the wall outlet.



Note

Use a 3-pin - 2-pin conversion adaptor, if required.

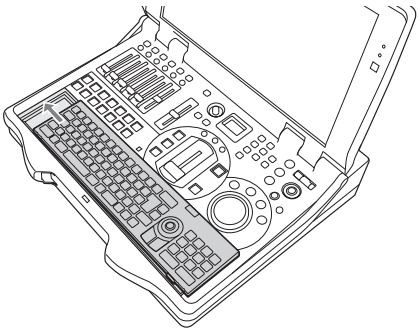


Caution

Connect the grounding lead of the 3-pin/2-pin adaptor to the ground terminal. If grounding is not possible, consult your dealer or your Sony service representative.

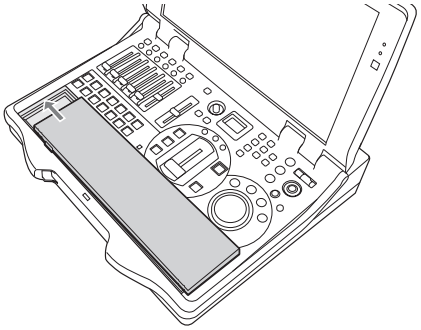
Fitting a Keyboard

To install the keyboard in this unit, align it with the keyboard space, with the keys upward, and slide in the direction shown by the arrow. Power is supplied to the keyboard from the main unit, and the EXT POWER indicator on the keyboard lights.



Note

When not using the keyboard, you can insert it upside down. In this case, no power is supplied to the keyboard.

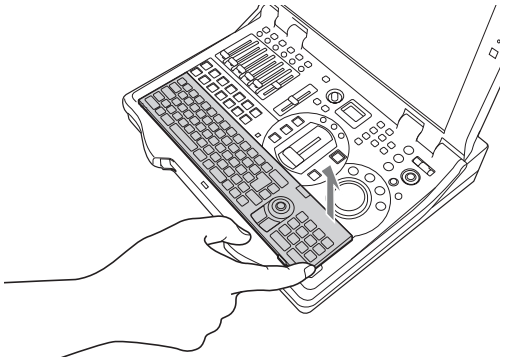


Using the keyboard away from the unit

You can use the keyboard away from the unit. In this case, it is necessary to insert a pair of standard batteries (CR2032) to power the keyboard.

To detach the keyboard

Using the groove locating at the right of the keyboard space, lift the keyboard out.



To insert batteries in the keyboard

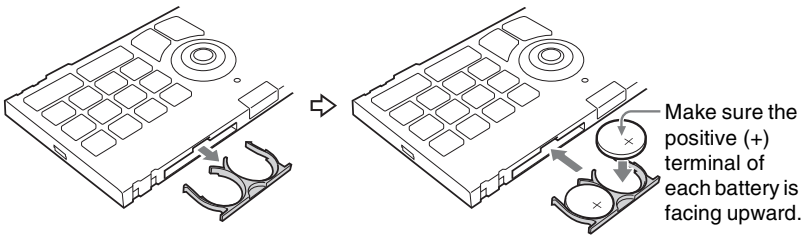
1 Detach the keyboard from the main unit.

2 Detach the battery holder from the keyboard.

Caution

To remove the battery holder, use the end of a sharp implement such as a pen.

3 Load two batteries (CR2032) in the battery holder, and insert in the keyboard.



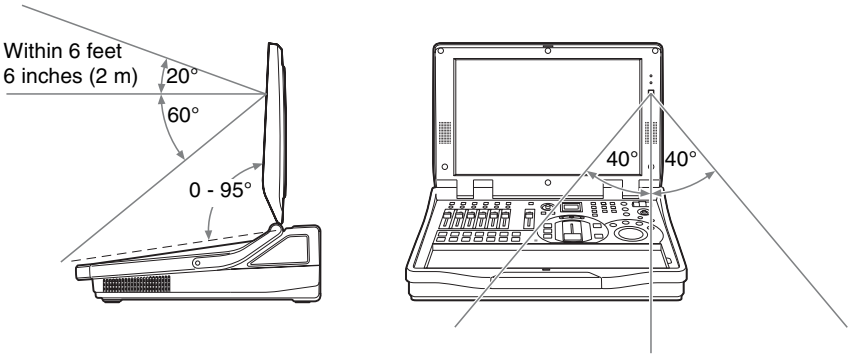
Caution

If batteries are inserted incorrectly, this may lead to electrolyte leakage or other damage. Note the following carefully.

- Check that the polarity is correct.
- Do not use new and old batteries together, or batteries of different types.
- Do not attempt to charge the batteries.
- When not using the keyboard for a long period, remove the batteries.
- If a battery should leak, remove any spilled fluid from the battery holder, before inserting a new battery.

Infrared transmitting range

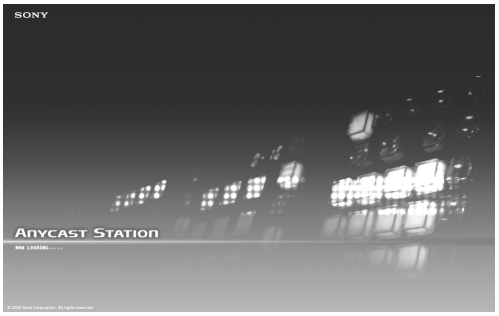
The range over which the keyboard can operate with infrared control is shown in the following figure.



Starting and Closing Down the Unit

Starting

Press the ⏻ (power) button on the side panel.
The startup screen appears.



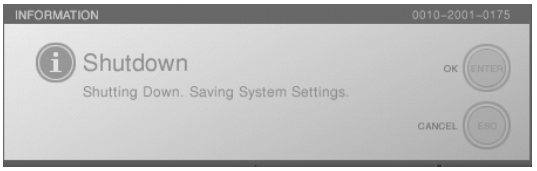
When the startup completes, the operation screen appears.

Caution

If the display is closed while the unit is operating, the temperature will rise, and this may cause failure.

Closing down

Press down the ⏻ (power) button on the side panel.
The following message appears.



Notes

- The last set data is saved.
- If an external hard disk is connected, it is automatically unmounted (page 189).

This closes down the operating software, and powers off.
It takes a little while before the power turns off after the screen disappears.

Caution

- If you hold down the power button for at least 4 seconds, this forces a shutdown. After a forced shutdown, the settings of the unit may not be preserved.
- When restarting the unit immediately after shutting down, wait at least 5 seconds after shutdown before pressing the power button.
- Button operations performed while an application is closing will not be properly reflected on the system.

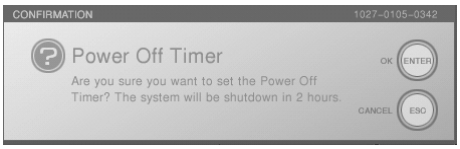
Using the timer to shut down the system/Releasing the timer setting

You can use a timer to shut down the unit.

Caution

Do not shut down the system using the timer while recording to an external hard disk. The recorded file may become damaged and unusable.

1 While the Anycast Station main software is running, hold down the keyboard Alt and Ctrl keys, and press the T key.
The following confirmation message appears.



Note

It is not possible to use this function while the Text Typing Tool software is running.

2 To set the timer, press the ENTER button.
To release the timer, press the ESC button.

When setting the timer

The timer indication appears to the right of “LOCAL TIME.”

When the text entry tool is started, the timer display disappears, but the timer function continues to operate.

Note

The countdown appears from -120 min.

After two hours the system is powered off.

When releasing the timer

The timer display disappears.

Selecting the Language

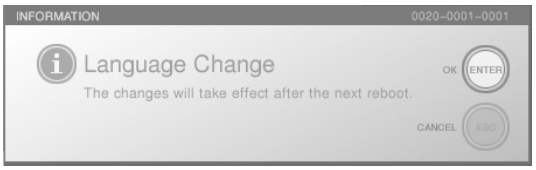
Set the language to correspond to the keyboard being used.
The default setting is “English (US).”

1 Press the MENU button.

2 In the top menu, select [System].

3 ① Select [Language], and confirm; ② select the appropriate language from the list, and confirm.

The operation screen appears as shown below.



4 Confirm the message that appears, and press the ENTER button.

5 Press the MENU button to close the menu.

6 Restart the system.

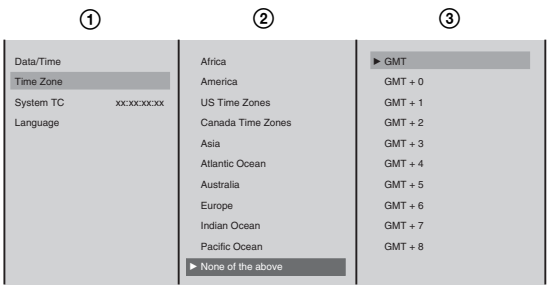
Setting the Time Zone

Set the time zone for your geographical location.

1 Press the MENU button.

2 In the top menu, select [System].

3 ① Select [Time Zone], and confirm; ② select the area, and confirm; ③ select the region, and confirm.



4 Press the MENU button to close the menu.

Note

The notation system for displaying time zone data in relation to GMT is based on the form POSIX minutes-west-of-GMT in which the hour decreases as you move east and increases as you move west.

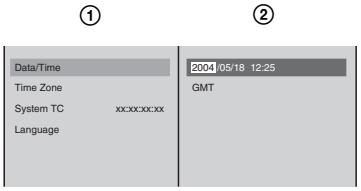
Setting the Date and Time

Set the internal clock.

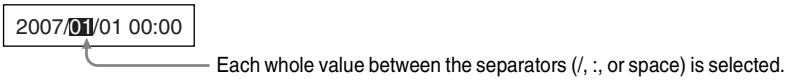
1 Press the MENU button.

2 In the top menu, select [System].

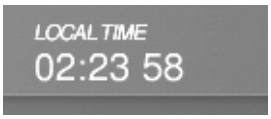
3 ① Select [Date/Time], and confirm; ② enter the date and time in the input box, and confirm.



Using the arrow buttons on the jog roller (or the ← and → keys while holding the Ctrl key on the keyboard), select the item to change and enter a numeric value with the keyboard.



The time set in “LOCAL TIME” appears at the upper left of the operation screen.



4 Press the MENU button to close the menu.

Caution

If this unit is operated for a long period, the clock may drift out of its correct setting. Resetting the clock at regular intervals is recommended.

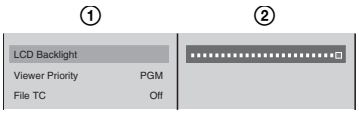
Adjusting the Display Brightness

Adjust the brightness of the display on which the operation screen is shown.

1 Press the MENU button.

2 In the top menu, select [Display].

3 ① Select [LCD Backlight], and confirm; ② move the slider to adjust brightness.



4 Press the MENU button to close the menu.

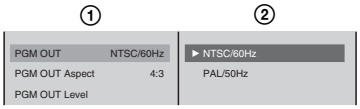
Selecting the Video Output Signal Format

Select the format for the signals output from the PGM output connectors (COMPOSITE/S VIDEO), the SD video interface module's DV connectors, and the SDI output, HD analog output, HD SDI output, and reference output connectors on the rear panel.

1 Press the MENU button.

2 In the top menu, select [Video Output].

3 ① Select [PGM OUT], and confirm; ② select the signal format, and confirm.



A confirmation message appears.

4 Press the ENTER button.

A shutdown message appears, and the system shuts down.

Caution

- Carrying out this selection may cause momentary breakup of the output video.
- When [PAL/50Hz] is selected, small portions of the top and bottom of PAL input videos will be missing. To avoid this, set the RGB output signal format to [Video RGB] (page 216).

Note

Video input in a different signal format than this setting can still be displayed (i.e., displaying a PAL video input when set to "NTSC" or vice versa), but the video quality cannot be guaranteed.

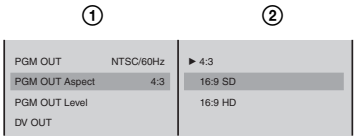
Setting the PGM Output Aspect Ratio

Select the size (ratio between width and height) of the program output video.

1 Press the MENU button.

2 In the top menu, select [Video Output].

3 ① Select [PGM OUT Aspect], and confirm; ② select a size for the program output video, and confirm.



[4:3]: Creates programs in the 4:3 aspect ratio.
Select this when the output destinations are primarily SD (4:3).

[16:9 SD]: Creates programs in the 16:9 aspect ratio.
Select this when the output destinations are primarily SD (4:3) or when giving priority to PGM recording to external hard disks.

[16:9 HD]: Creates programs in the 16:9 aspect ratio.
Select this when the output destinations are primarily HD (16:9).

4 Press the MENU button to close the menu.

Relation between aspect ratio settings and output signals

		Output connector / PGM recording to HDD			
		SD output*1	**HD output*2**	**RGB output*3**	**PGM recording to external hard disk drives**
Output signals	4:3 mode	4:3	Black & silent signal	4:3	4:3
	16:9 SD mode	16:9 squeeze	Black & silent signal	XGA/SXGA 16:9 squeeze WXGA 16:9	16:9 squeeze
	16:9 HD mode	Composite, S-video 16:9 squeeze No signal for DV SDI Black & silent signal	16:9	XGA/SXGA 16:9 squeeze WXGA 16:9	PGM recording to external hard disk drives is unavailable

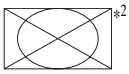
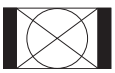
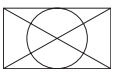
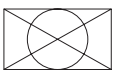
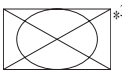
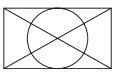
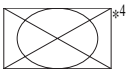
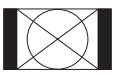
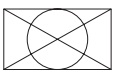
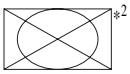
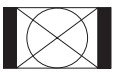
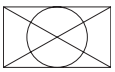
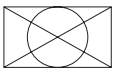
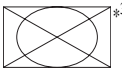
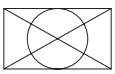
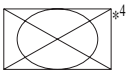
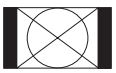
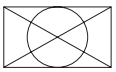
*1 Output from the built-in composite or S-Video output connector, the SD video interface module or serial digital interface module.
*2 Output from the HD video interface module or HD serial digital interface module.
*3 Output from the built-in RGB output connector.

Caution

- When [4:3] or [16:9 SD] is selected, program output from the HD video interface module (BKAW-560) or HD serial digital interface module (BKAW-590) is disabled.

- When [16:9 HD] is selected, program output from the SD video interface module (BKAW-570) or serial digital interface module (BKAW-580) and recording to external hard disks are disabled.

Relation between aspect ratio settings, input signals, and viewer displays

		Input signals						
		SD input		HD input	RGB input		CG	
		4:3*1	16:9 squeeze*1	16:9	XGA/SXGA	WXGA	4:3/5:4	16:9/16:10/ 5:3
PGM/PVW viewer display	4:3 mode	4:3	16:9 squeeze	16:9 squeeze	4:3	16:9 squeeze	4:3	16:9 squeeze
	16:9 SD mode	 *2 Wide screen  Center	 16:9	 16:9	 *3 Wide screen	 16:9	 *4 Wide screen  Center	 16:9
	16:9 HD mode	 *2 Wide screen  Center	 16:9	 16:9	 *3 Wide screen	 16:9	 *4 Wide screen  Center	 16:9

*1 Specify the aspect ratio of the input signals in the top menu with [Source Aspect] of [Video Input Assign].

*2 Changes depending on the [Wide Zoom] setting in the ACCESS menu.

*3 Adjust [Resize] in the ACCESS menu to convert to center display.

*4 Changes depending on the [CG Wide Zoom] setting in the INT source selection menu.

Setting the System Timecode

Set the system timecode to add to files and output signals recorded on an external hard disk.

The system timecode is used for the following functions.

- The timecode of a file recorded for program output
- The timecode of an EDL
- The timecode of a file recorded for material (except DV material)
- The timecode to add to DV signals output from a DV output connector
- The timecode to add to SDI signals output from a SDI output connector

Note

The system timecode added with this unit is a drop frame timecode (except when PAL is set).

Setting the time to use as the system timecode

You can set the time to use as the system timecode.

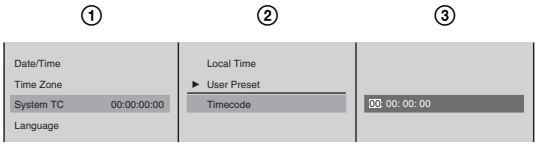
Note

At the time of purchase, the time set for [Date/Time] (local time) in the top menu is configured to be used as the system timecode.

1 Press the MENU button.

2 Select [System] in the top menu.

3 ① Select [System TC], and confirm; ② select [User Preset], confirm, and select [Timecode]; ③ set a time in the input box, and confirm.



The timecode display for [System TC] is updated to the set value.

Note

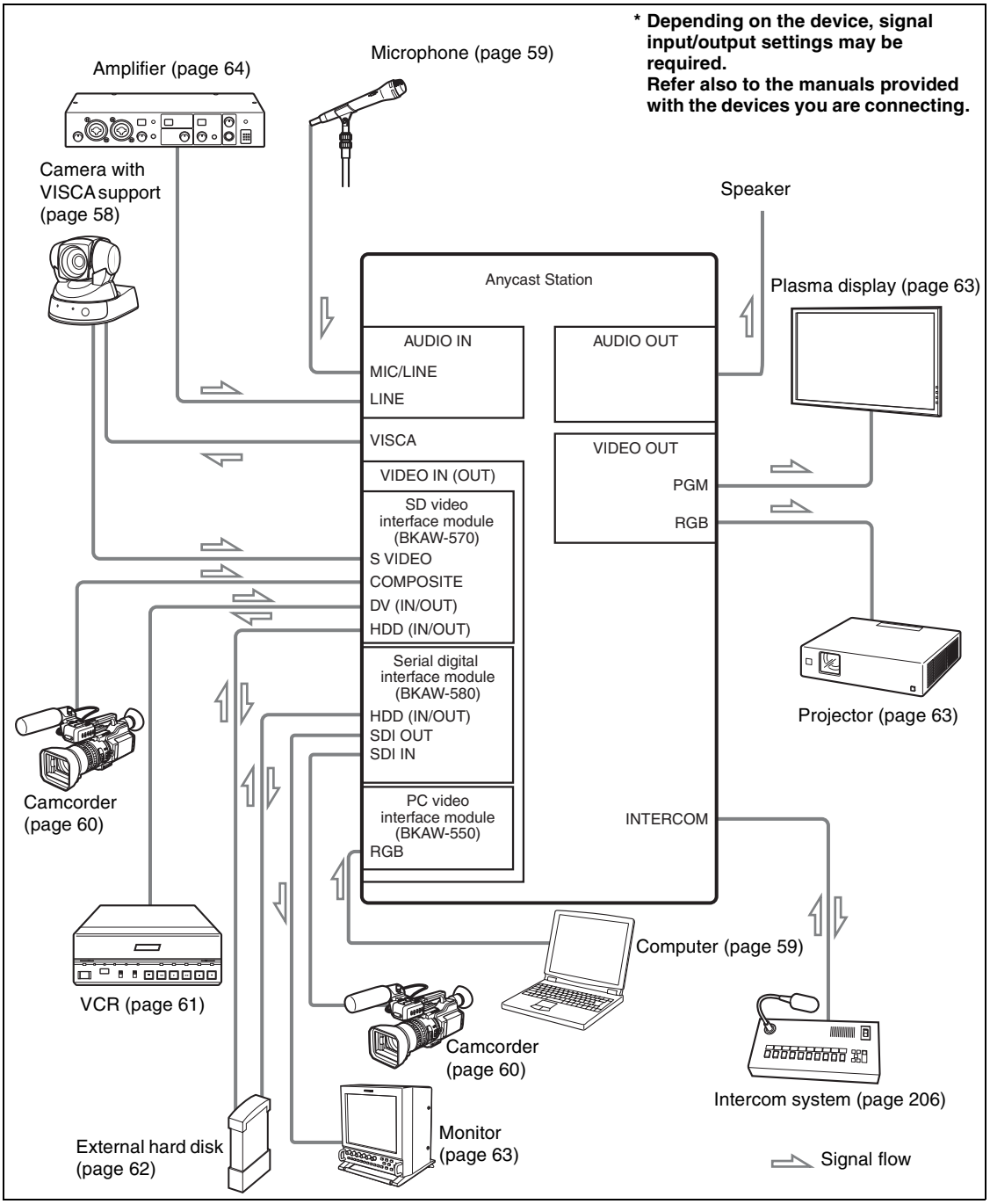
When you configure this setting, the timecode is preset at the time of configuration and when the unit is started, and from then on, the count increases.

4 Press the MENU button to close the menu.

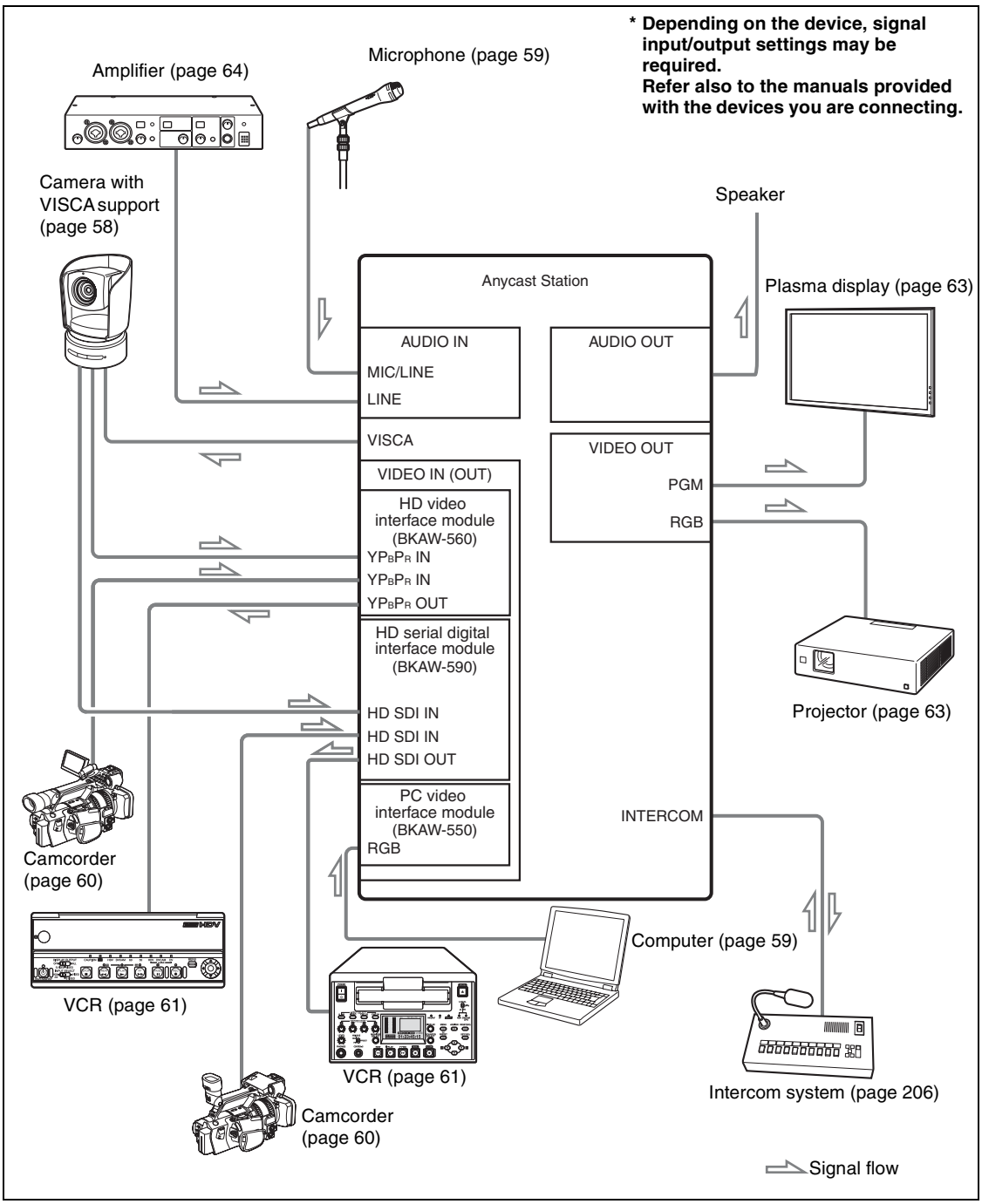
Connections

This section describes how to connect devices for input and output of video and audio. The following figure shows a sample system configuration and signal flow. Refer to the pages indicated for details of how to make connections.
In addition, after connecting each device, you must configure settings on the unit for each input and output signal. See page 66 for details on the settings of each input and output signal.

System configuration example 1: When a serial digital interface module is connected



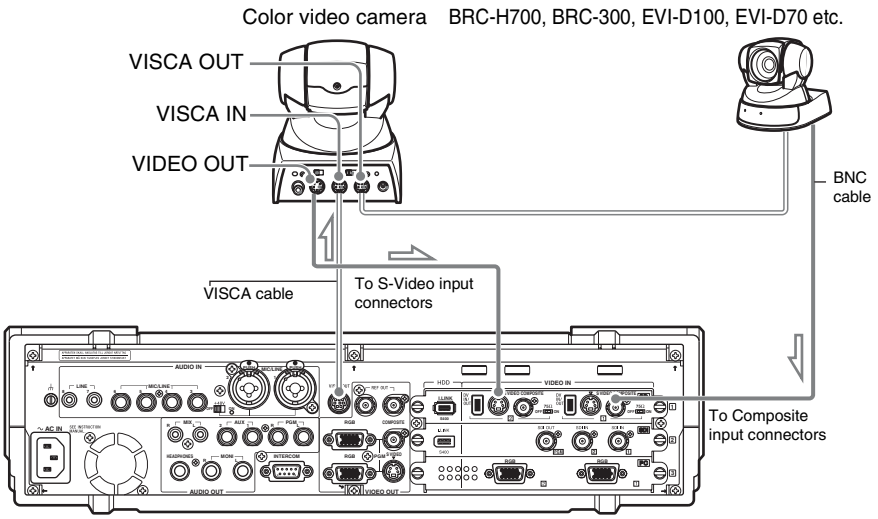
System configuration example 2: When an HD video interface or HD serial digital interface module is connected



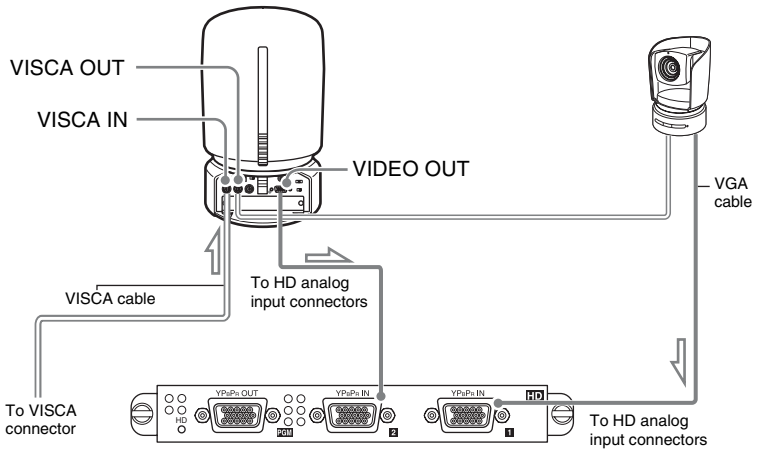
Caution

- Use the shortest possible cable type (especially with unregulated RGB). Shorter cables are recommended because, in general, using long cables to connect devices increases the risk of signal noise. Even when connecting this unit to another, it is best to use the shortest cables possible.
- Be careful with the connector portions of the interface modules, which may become hot depending on the conditions of operation.

Connecting a Camera With VISCA Support



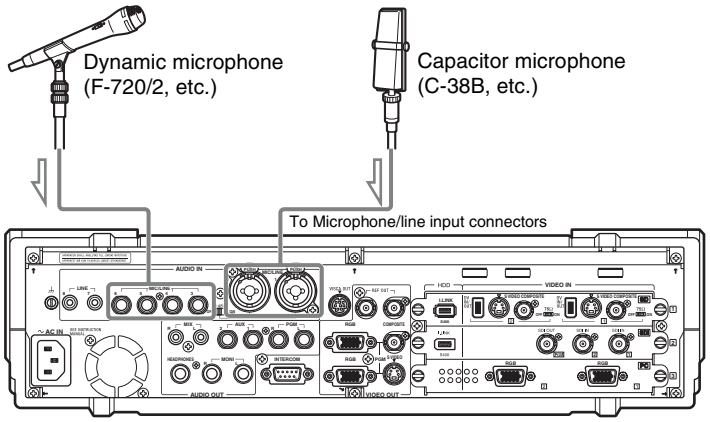
When an HD video interface module is connected



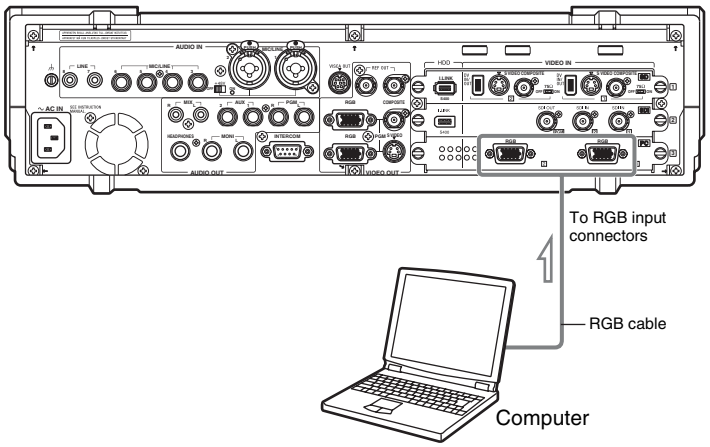
Notes

- VISCA cables up to 15 m (50 ft) are recommended to operate correctly.
- When connecting a BNC cable, an RCA-BNC adaptor is required.
- When connecting a BRC-300 camera, connect to the DV, RGB, and SDI input connectors in accordance with the camera's option board.
- When connecting a BRC-H700 camera, connect to the RGB, SDI, and HD analog input connectors in accordance with the camera's option board.
- For information about VISCA cameras that can be connected to the unit, visit the following Anycast Station portal site:
  https://servicesplus.us.sony.biz/SoftwarePlusSerch.aspx (for customers in U.S.A.)
  https://www.sonybiz.net/anycast (for customers in Europe, Middle East and Africa)
  https://www.ecspert.sony.biz/ecsite/ (for the other customers)

Connecting a Microphone



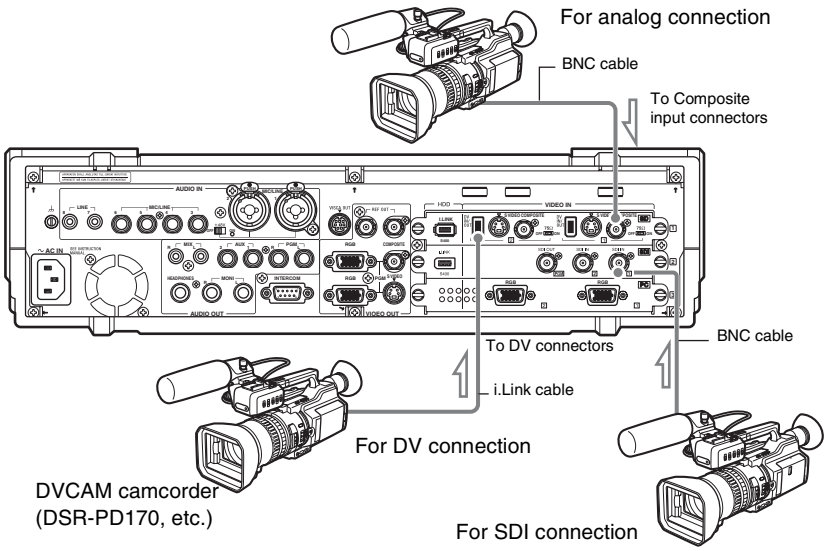
Connecting a Computer (RGB Input)



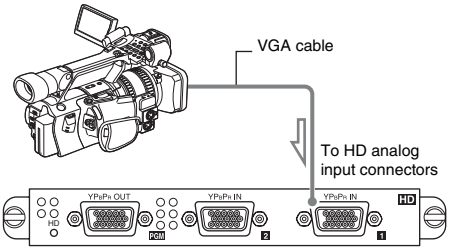
Note

To reduce the effects of external noise, use a cable with an attached ferrite core.

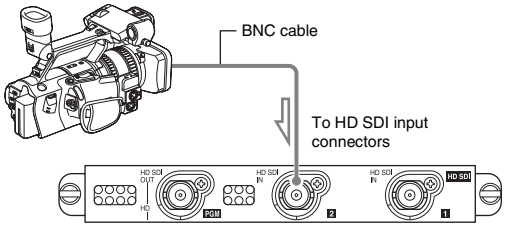
Connecting a Camcorder



When an HD video interface module is connected



When an HD serial digital interface module is connected



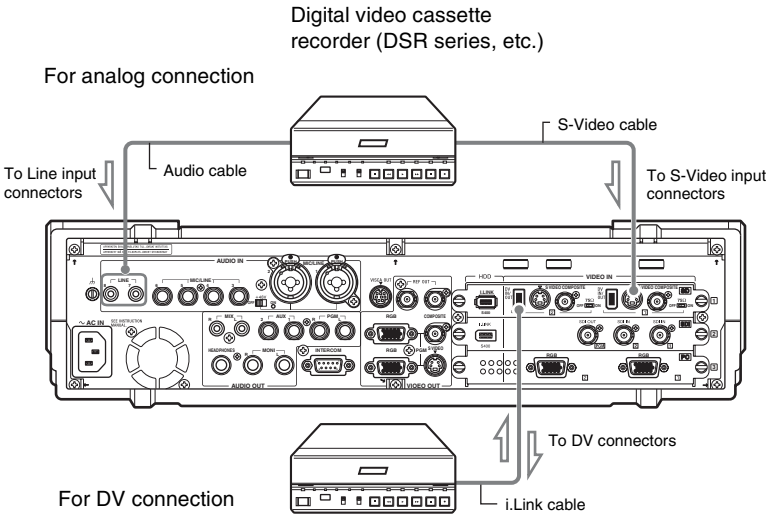
Note

i.LINK cables between 80 cm and 3.5 m (2.5 to 11.5 ft) are recommended.

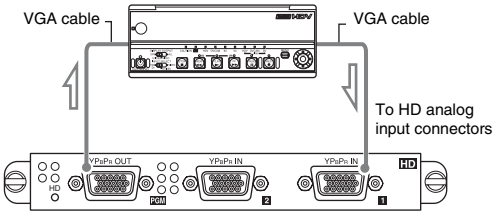
Caution

- The frequency precision of the reference output signal is within 50 ppm. When building a system that includes devices such as a camera with a Gen Lock input, be sure to test it thoroughly before use.
- The color frame of the program output signal does not reflect the color frame sequence of the reference output signal.
- If video or audio is not output or signal noise occurs when connected to another DV device, the problem can often be resolved by reconnecting the cables or turning the DV device or the unit off and then on again.

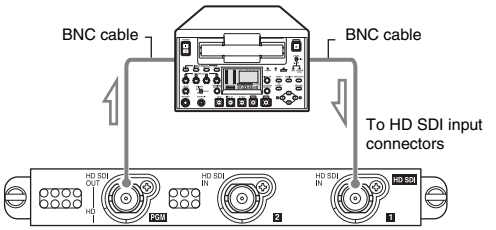
Connecting a VCR



When an HD video interface module is connected



When an HD serial digital interface module is connected



Note

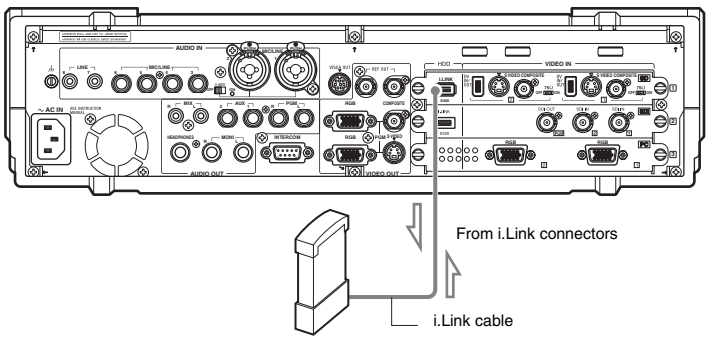
i.LINK cables between 80 cm and 3.5 m (2.5 to 11.5 ft) are recommended.

Caution

- If when connected to another DV device the video or audio is not output, or there is noise, reconnect the cable, or power the DV device or this unit off and on again. This may solve the problem.
- It is not possible to connect more than one VCR to a single DV connector.

Connecting an External Hard Disk

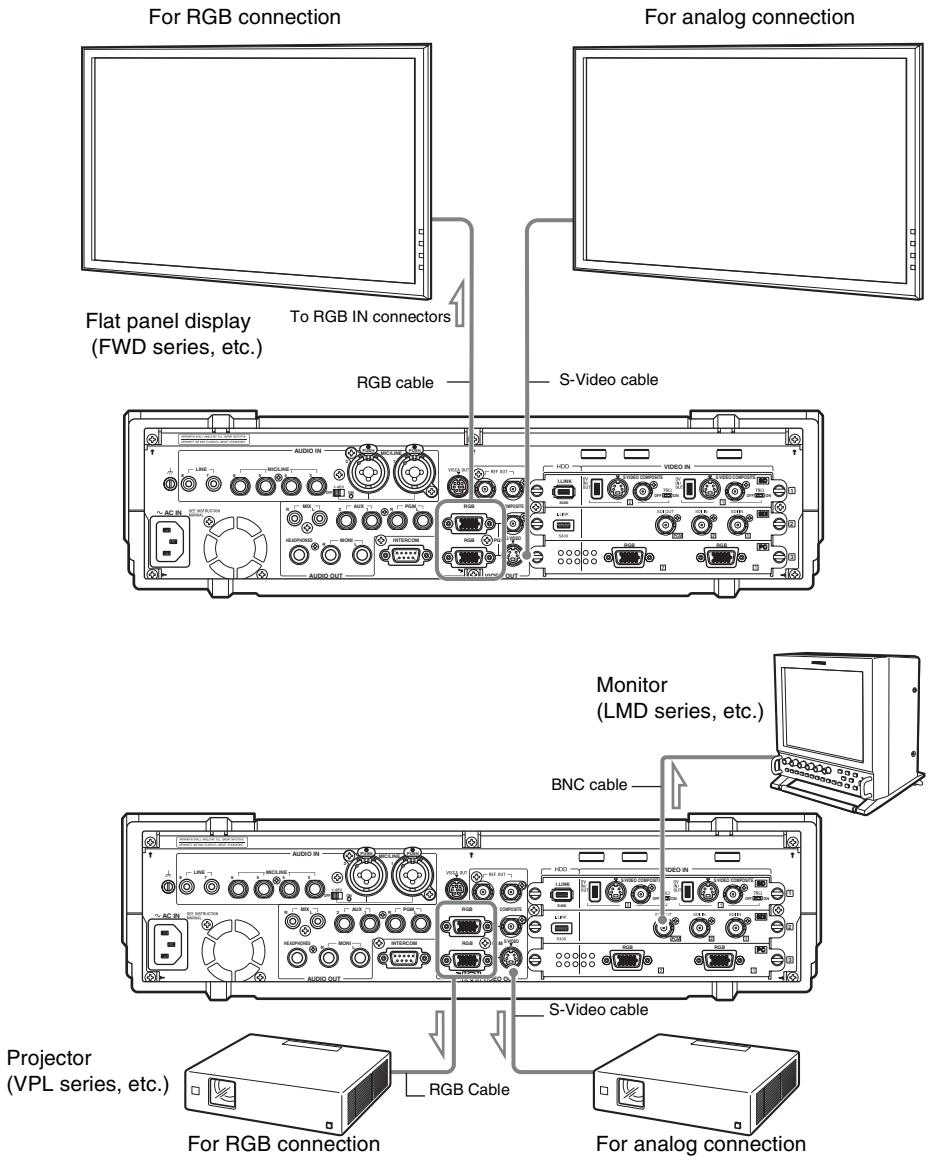
For information about external hard disks, visit the following Anycast Station portal site:
https://servicesplus.us.sony.biz/SoftwarePlusSerch.aspx (for customers in U.S.A.)
https://www.sonybiz.net/anycast (for customers in Europe, Middle East and Africa)
https://www.ecspert.sony.biz/ecsite/ (for the other customers)



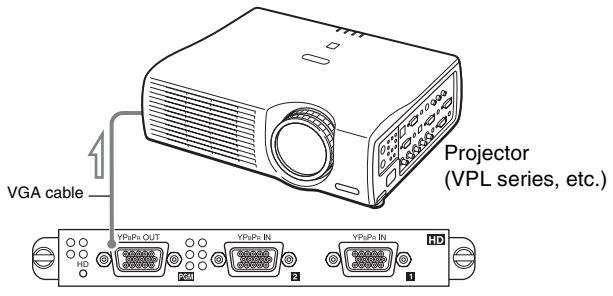
Caution

- If using a hard disk with a standby function, make sure that the standby function is disabled before connecting to this unit.
- Power on the connected hard disk before powering on this unit.
- Connect the i.LINK connector directly to the hard disk.
- It is not possible to connect more than one hard disk to a single i.LINK connector (daisy-chaining connection not possible).
- If you disconnect the i.LINK cable, or power off the hard disk without carrying out the necessary preparations for disconnecting the disk, then files may be corrupted, or the disk may need to be recovered. For details of unmounting, see “Disconnecting the External Hard Disk” (page 189).

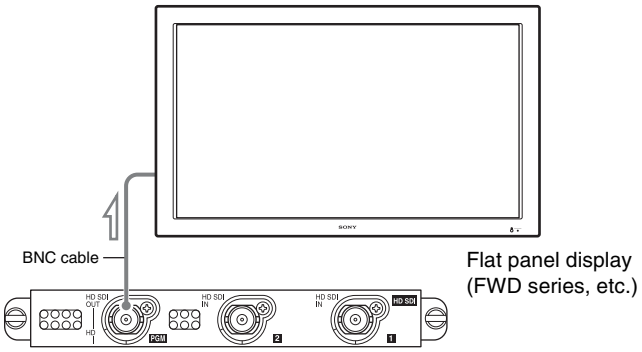
Connecting a Plasma Display/Projector/Monitor



When an HD video interface module is connected



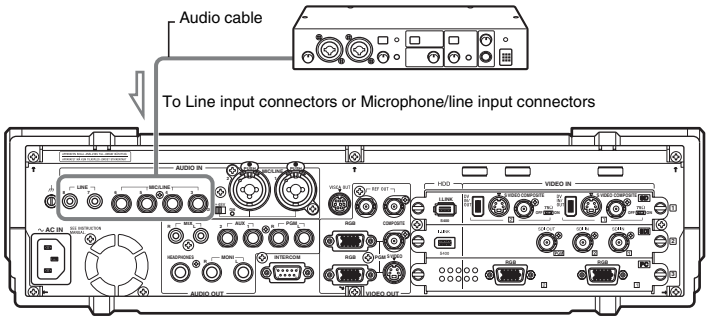
When an HD serial digital interface module is connected



Notes

- For more information on setting the resolution/clock phase and format, see "Setting the RGB Output Signal Format" (page 216).
- To reduce the effects of external noise, use a cable with an attached ferrite core.

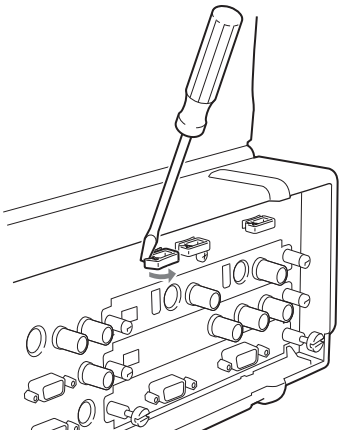
Connecting an Amplifier



Preventing Accidental Cable Disconnection

Use the cable clip as necessary to secure cables and prevent accidental disconnection.

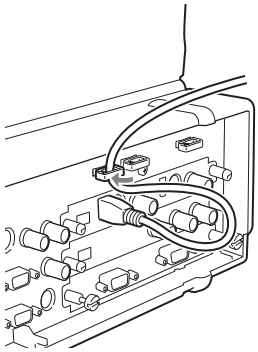
1 Using a flat head screwdriver, open the lever compartment as illustrated below.



2 Pass the cables through the cable clip.

Allow some slack when routing the cables to prevent them from bending sharply.

3 Close the lever compartment.

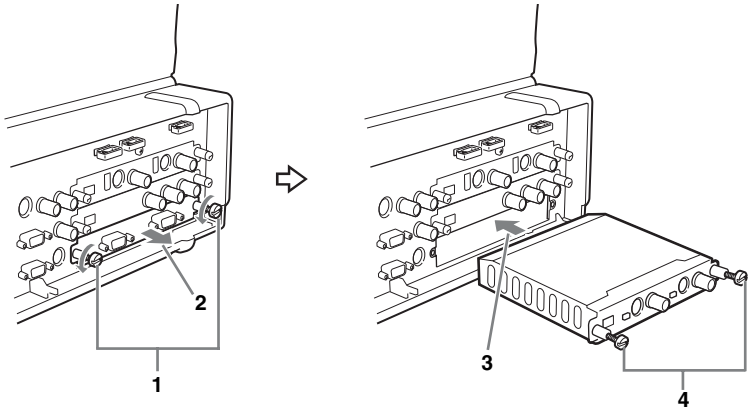


Installing Option Modules

To install an option module, first remove the interface module fitted to the unit as standard, and install the new interface in the slot.

Note

You can install an option module in any slot.



1 Loosen the two screws fixing the interface module fitted as standard.

2 Pull out the interface module.

3 Insert the option module into the slot.

4 Tighten the screws.

Caution

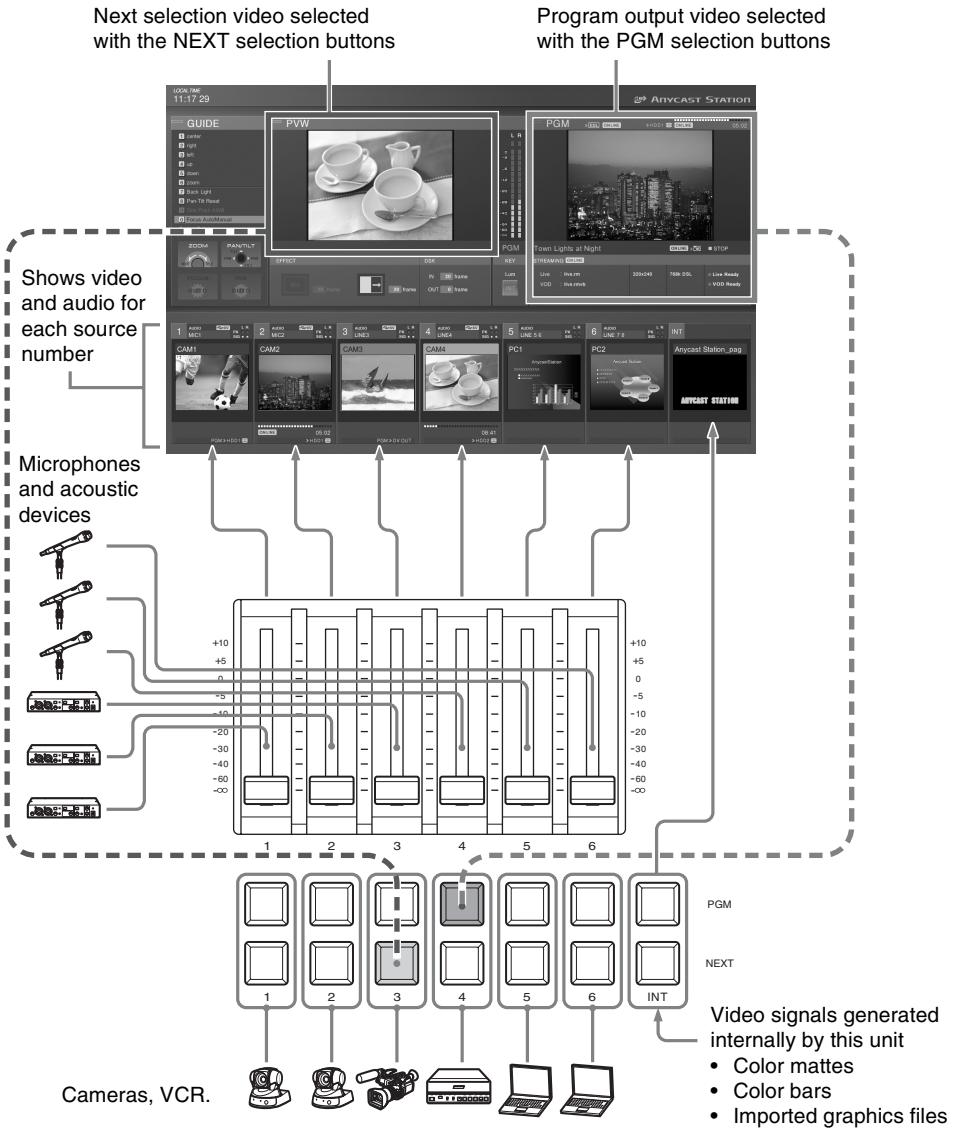
When installing an option module, always turn the unit off first. If you install an option module with the unit powered on, this may damage the option module.

Settings Related To Input Signals

These settings allow video and audio signals input from devices connected to the unit to be handled within the unit.

Relation Between Input Signals and System Components

You can assign input video and audio signals to buttons on the front panel and channel faders, then operate these to carry out switching, mixing, and combining. The operation screen continuously displays information about the video and audio input to this unit, and the video and audio program output.
The following figure shows the relation between the input signals and system components, and the display on the operation screen.



Video Signal Related Settings

These are preparations for handling video signals with the unit.

Assigning video input signals to the selection buttons

Assign video signals to the selection buttons 1 - 6 (PGM selection and NEXT selection buttons).

Note

You can confirm assignments and information on input signals using each of the corresponding ACCESS menus. The signal names displayed in the menus are those of signals that are capable of being accepted as determined by the unit. Not all standard signal names are displayed.

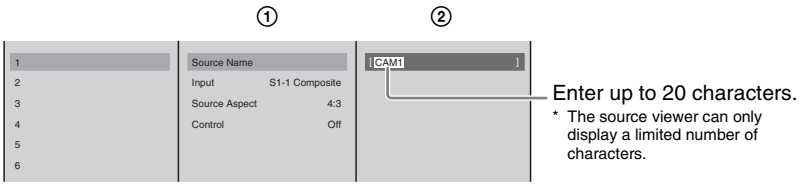
1 Press the MENU button.

2 In the top menu, select [Video Input Assign].

3 From the list select the number of the selection button, and confirm, then set the following items in the submenu.

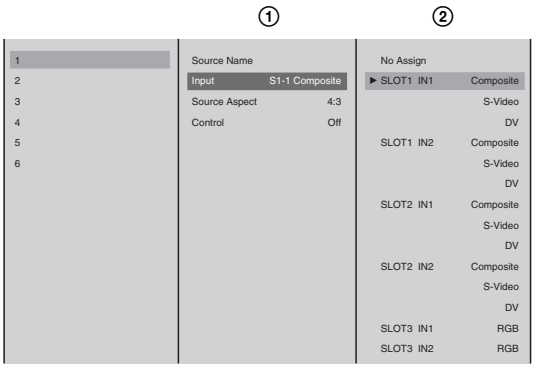
Assigning a name for the video

Assign a name for the video. The name assigned here appears in the source viewer with the same number as the selection button.
① Select [Source Name], and confirm; ② enter the name in the input box, and confirm.



Specifying a video input connector

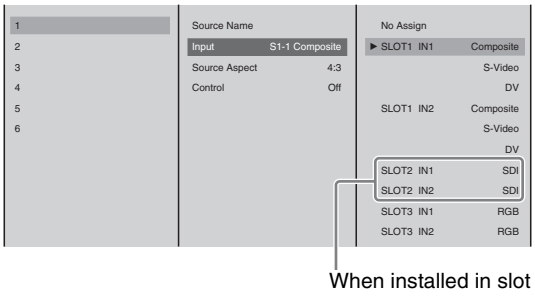
Specify the video input connector to which the video signals assigned to the selection button are input.
① Select [Input], and confirm; ② select the video input connector from the list, and confirm.



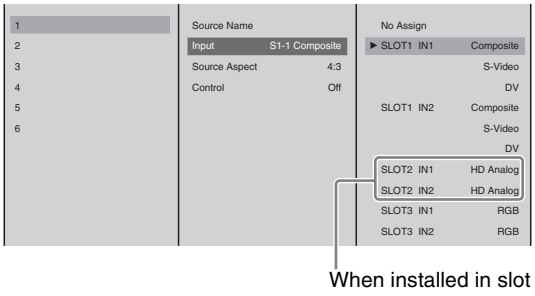
Notes

When optional modules are installed, the connectors for the optional modules appear in the list.

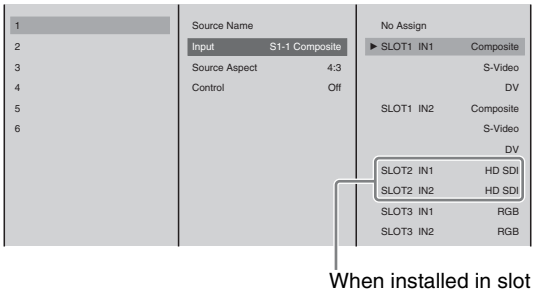
- **When a serial digital interface module is installed**
  The SDI input connectors appear.



- **When an HD video interface module is installed**
  The HD analog input connectors appear.



- **When an HD serial digital interface module is installed**
  The HD SDI input connectors appear.



Caution

- You can only use one of the following from the same video input on the same interface module: Composite (Composite video input connector), S-Video (S-Video input connector), or DV (DV connector).
- It is not possible to assign more than one selection button to a single video input connector. If you attempt to assign to a different selection button a video input connector which has already been assigned to a selection button, a confirmation message appears. If you then select [OK], the assignment switches to the new selection button, and the source viewer for the originally assigned selection button shows the indication “No Input Assign.”

- **About the DV signal lock time**
  When DV is selected for the input video, there is a delay until the DV signal locks and the video appears.

Notes

- The items in the list depend on the interface module installed in this unit.
- For details on [Control] and [Source Aspect] in the menu for ①, see "Controlling Camera Manually" (page 158) and "Converting 4:3 Source Materials to Wide Screen" (page 213), respectively.

4 If required, repeat step 3 similarly for the remaining selection buttons.

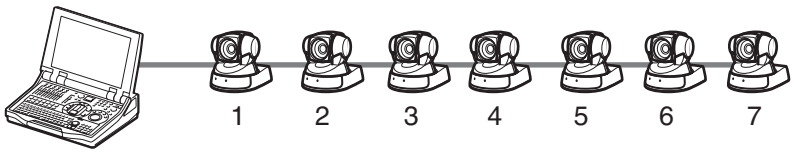
5 Press the MENU button to close the menu.

Registering Cameras To Be Controlled

By registering a camera supporting the VISCA protocol with this unit you can control it from the unit.
You can connect up to seven cameras supporting VISCA protocol to this unit in a daisy-chain, and control the cameras from this unit at addresses VISCA 1 to VISCA 7 in sequence. In this unit, you control a camera by specifying one of these addresses.

Caution

The maximum number of simultaneous video signal inputs to this unit is six.



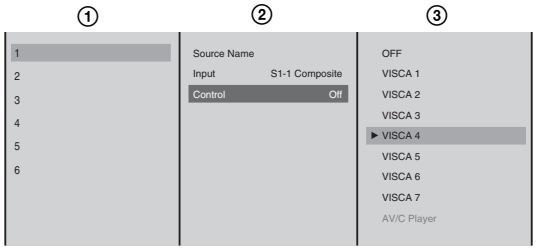
1 Connect the camera(s) supporting VISCA protocol to this unit.

For camera connection, see "Connecting a Camera With VISCA Support" (page 58).

2 Assign the input signal from the camera to a selection button.

For assigning the input signal, see "Assigning video input signals to the selection buttons" (page 67).

3 ① Select the number of the selection button assigned to the camera supporting VISCA protocol, and confirm; ② select [Control], and confirm; ③ select the camera address, and confirm.



Note

VISCA camera information display

By pressing the → button on the jog roller or the → key on the keyboard while the camera address is selected, you can display the model name for the camera, as shown below, for as long as you hold down the button or key.

4 Press the MENU button to close the menu.

Stretching 16:9 SQ Source Materials Into 16:9 Aspect Ratio

When the output aspect ratio setting is set to 16:9 SD or 16:9 HD mode, you can configure settings to stretch 16:9 SQ materials from the analog video input and SDI input connectors into normal 16:9 aspect ratio.

In addition, when you record material for which this setting has been configured to an external hard disk and play them back on the unit or certain computers, the material will automatically be stretched into 16:9 aspect ratio.

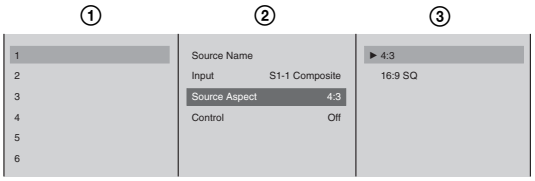
Caution

The aspect type of source materials inputted is not detected automatically.

1 Press the MENU button.

2 In the top menu, select [Video Input Assign].

3 ① Select the number for the selection button from the list, and confirm; ② select [Source Aspect], and confirm; ③ select the aspect type for the materials to be input, and confirm.



The functions of the setting items are as follows.

[4:3]: Select this when the SD/SDI signals input are 4:3 source materials. The materials input are handled as they are as 4:3 materials.

[16:9 SQ]: Select this when the SD/SDI signals input are 16:9 squeeze source materials.

The materials input are handled as 16:9 materials. When you select [16:9 SQ] and record materials to an external hard disk, the materials are automatically played back in 16:9 aspect ratio during playback.

Note

When DV 16:9 squeeze material is input:

- You can stretch the display with the [Wide Zoom] setting (page 213).
- The display is automatically stretched to 16:9 aspect ratio if files of material recorded to an external hard disk are played back.

4 Press the MENU button to close the menu.

Audio Signal Related Settings

These are preparations for handling audio signals on the unit.

Assigning audio input signals to channel faders

Assign audio signals input from the audio input connectors or signals input from the interface modules of the rear panel to channel faders 1 to 6.
If you assign different audio signals to the left and right channels (L/R) of the channel faders, they become stereo faders, and if you assign the same audio signal to both channels, they become monaural faders.

Caution

If you assign DV signals, SDI signals, or HD SDI signals, they become stereo faders.

Note

You can confirm assignments and information on input signals using each of the corresponding ACCESS menus.

1 Press the MENU button.

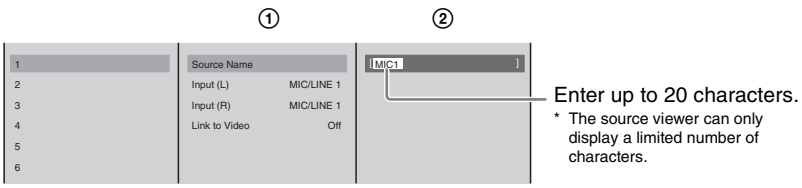
2 In the top menu, select [Audio Input Assign].

3 Select the channel fader number from the list, and confirm, then set the following items in the submenu.

Assigning a name

Assign a name to the audio signal. The name assigned here appears in the source viewer with the same number as the channel fader.

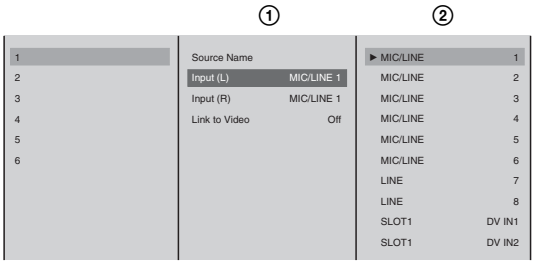
① Select [Source Name], and confirm; ② enter the name in the input box, and confirm.



Specifying an audio input connector

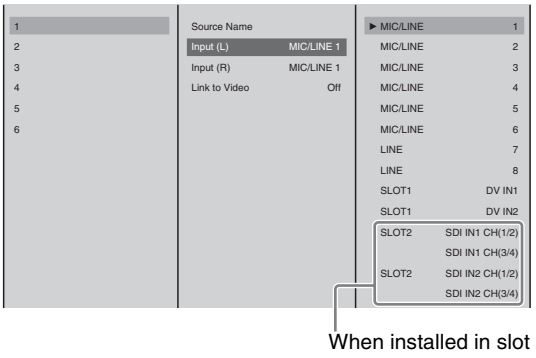
Specify the audio signal to be assigned to the channel fader. For stereo audio, specify the source for each of the left and right channels separately.
For monaural audio, specify the same input for both left and right channels.

① Select [Input (L)], and confirm; ② select the audio input connector from the list, and confirm.

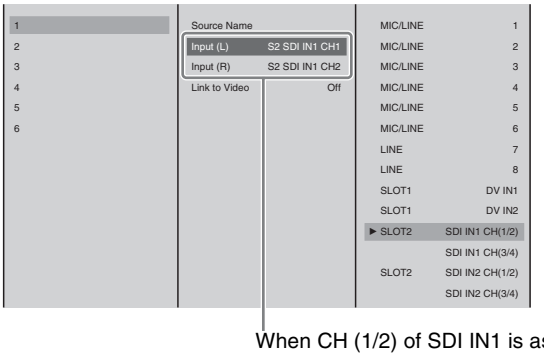


Notes

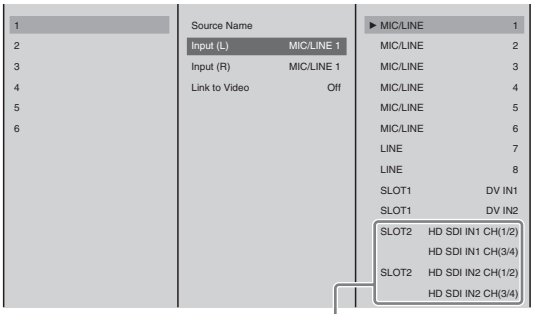
- If in [Input (L)] you select the DV input connector, the same input connector is automatically assigned to [Input (R)].
- **When a serial digital interface module is installed**
  - The SDI input connectors for individual channels are displayed.



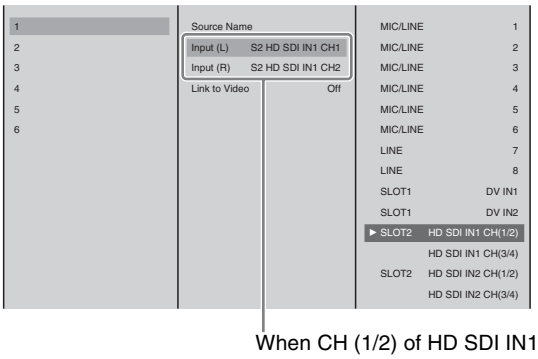
  - If you select CH (1/2) of the SDI input connector for either [Input (L)] or [Input (R)], CH (1) and CH (2)are assigned automatically to [Input (L)] and [Input (R)], respectively.
    When you select CH (3/4) of the SDI input connector, CH (3) and CH (4) are assigned automatically to [Input (L)] and [Input (R)], respectively.



- **When an HD serial digital interface module is installed**
  - The HD SDI input connectors for individual channels are displayed.



- If you select CH (1/2) of the HD SDI input connector for either [Input (L)] or [Input (R)], CH (1) and CH (2) are assigned automatically to [Input (L)] and [Input (R)], respectively.
  When you select CH (3/4) of the HD SDI input connector, CH (3) and CH (4) are assigned automatically to [Input (L)] and [Input (R)], respectively.



Caution

- For DV input, it is not possible to assign more than one selection button to a single DV input connector. If you attempt to assign to a different selection button a DV input connector which has already been assigned to a selection button, a confirmation message appears. If you then select [OK], the assignment switches to the new selection button, and the originally assigned selection button returns to the default setting.
- **About the DV signal locking time**
  When DV is selected for the input audio, there is a delay until the DV signal locks and the audio can be heard.
- **When a serial digital interface module or HD serial digital interface module is installed**
  - SDI/HD SDI embedded audio can only be assigned to the channel fader of the source number assigned to video that is input to the same SDI input connector or HD SDI input connector. It cannot be combined with analog input video, DV input video, or video of the other SDI input connector or HD SDI input connector.
  - SDI embedded audio cannot be assigned simultaneously to CH (1/2) and CH (3/4) of the same SDI input connector or HD SDI input connector.

Similarly, select [Input (R)], and confirm; select the audio input connector from the list, and confirm.
When the input audio signal reaches the reference level, the input signal indication in the source viewer lights green and you can confirm that there is an audio input.

4 Press the MENU button to close the menu.

Linking program output video to audio of the same source number and outputting simultaneously

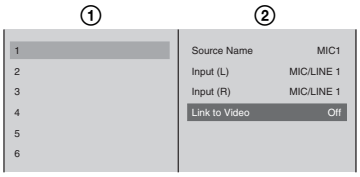
When video is switched over to program output, you can set audio that has been assigned to the same source number as the video to be enabled and output simultaneously with this setting.

1 Press the MENU button.

2 In the top menu, select [Audio Input Assign].

3 ① From the list, select the number for the channel fader to link to the video, and confirm; ② select [Link to Video], and confirm.

The setting turns on or off each time it is selected.



4 Press the MENU button to close the menu.

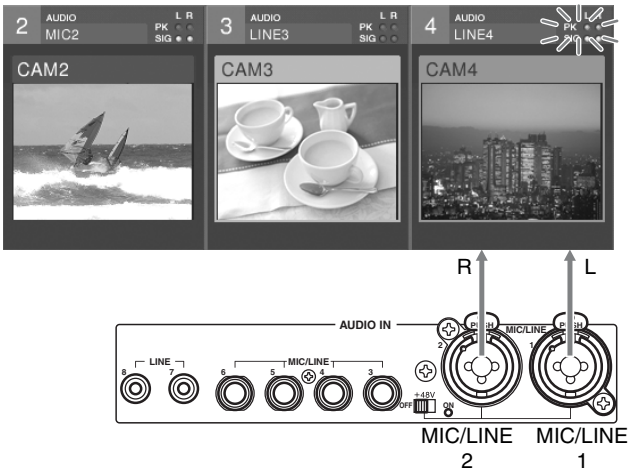
The AV icon appears in the source viewer of the source number for which the link was set.
When the video of the viewer in which the icon appears is program output, the CH ON button lights and the audio channel is enabled simultaneously.
When program is not output, the CH ON button dims.

Setting the MIC/LINE level of an audio input

If the peak indication appears (when set to the default MIC/LINE level of “Middle (-20 dB)”)

If the input audio signal is too loud, the peak indication in the source viewer lights red.
In this case, since the MIC/LINE level exceeds the standard input level, use the following procedure to adjust it.

Example: When the peak indication has lit with MIC/LINE 2 connected to R and MIC/LINE 1 connected to L, as illustrated below.

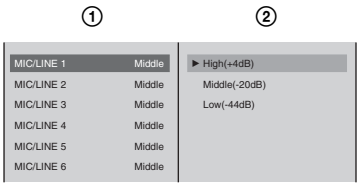


1 Press the MENU button.

2 In the top menu select [Audio MIC/LINE Level].

3 ① Select the number of the MIC/LINE input connector to which is connected the target audio signal, and confirm; ② select [High(+4dB)], and confirm.

In this example, both [MIC/LINE 1] and [MIC/LINE 2] are set to [High (+4dB)].



4 Press the MENU button to close the menu.

If no input signal indication appears (when set to the default microphone/line level of “Middle (-20 dB)”)

If no input signal indication appears in the source viewer even though an audio signal is input, the microphone/line level is not reaching the reference level. Using the same procedure as detailed in “If the peak indication appears” above, select the number of the microphone/line input connector, and at step 3-②, select [Low (-44dB)], and confirm.

Operations

Chapter 3

Video Switching

This section describes how to switch the video signals input to the unit, and output the final video (output program) from the PGM output connectors. With this unit, you can also apply some video effects.

Note

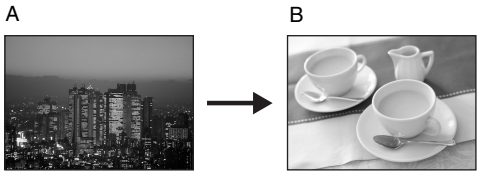
First, make the settings described in “Video Signal Related Settings” (page 67).

Basics of Video Switching

This section describes only the most basic switching operations. See the relevant sections for details of switching and effect operations.

Cut switching

This is the most basic and commonly used type of switching. The video changes instantaneously from A to B.
For details, see “Changing the Video With a Cut” (page 78).



Switching with a transition effect

In a transition effect, the image gradually switches from one video to another through the application of one of various effects.
For details, see “Changing the Video With a Effect Transition” (page 80).

Changing the Video With a Cut

This switches the video instantaneously, with no added effects. This is the most basic form of switching.

Basic operation for a video cut

There are two methods of making a cut, as follows.

- Switching directly by pressing a PGM selection button
- Checking the next video in the PVW viewer, then pressing the CUT button

The following diagram shows the flow of operations in carrying out a video cut.

Press the PGM selection buttons to select the program output video.

Press a different PGM selection button to switch the video.

Press a NEXT selection button to select the next output.

Press the CUT button.

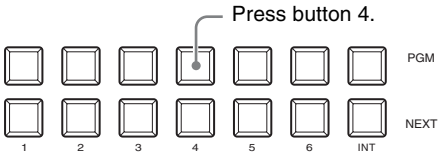
Switching directly by pressing a PGM selection button

To switch from one video to another, you can simply press the PGM selection button to which the new video is assigned.

1 In the source viewer, select the video for program output.

Example: You may select video 4.

2 Press the PGM selection button with the same number as the selected video.



The PGM selection button you pressed lights red, and the selected video appears in the PGM viewer.

The same video as shown in the PGM viewer is now output from the PGM output connectors.

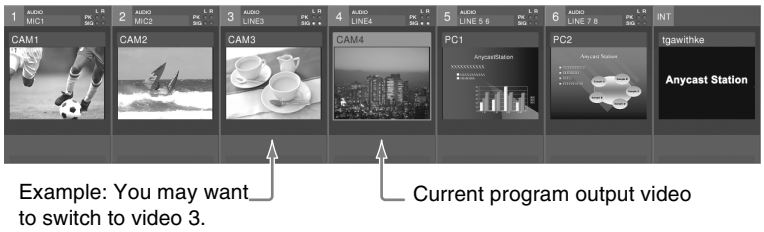
A red frame appears around the source viewer for the selected video.

3 Determine on the next video, then repeat the procedure in step 2.

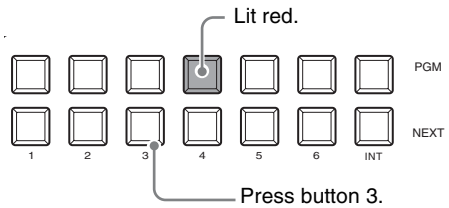
Switching with the CUT button after checking the next video in the PVW viewer

To switch while checking the new video in the PVW viewer, use the CUT button.

1 In the source viewer, select the video you want to switch to (the next program output).



2 Press the NEXT selection button with the same number as this video.

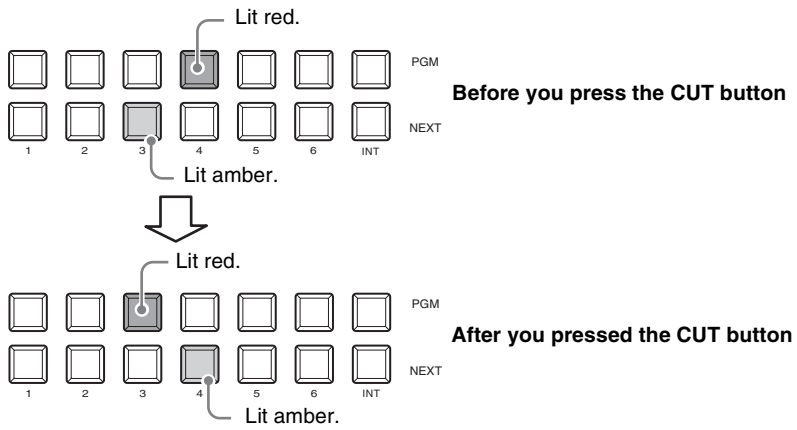


The NEXT selection button you pressed lights amber, and the selected video appears in the PVW viewer.

An amber frame appears around the source viewer for the next video.

3 Press the CUT button.

This interchanges the video in the PGM viewer and PVW viewer, and switches the program output video.
At the same time, the lit PGM selection button and NEXT selection button interchange, and the colors of the frames in the source viewer also interchange.



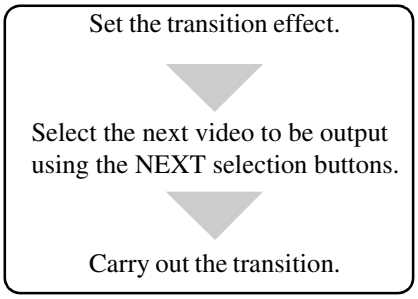
Each press of the CUT button interchanges the program output video and the NEXT selection video.

Changing the Video With a Effect Transition

Instead of an instantaneous cut, you can gradually switch from one video to another through the application of one of various effects.

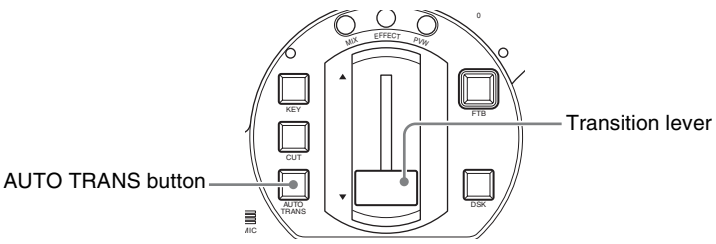
Basic transition effect operations

The basic procedure for applying an effect to a transition is as follows.



There are two ways of executing a transition:

- Automatic execution with the AUTO TRANS button
- Manual execution using the transition lever



AUTO TRANS button

Pressing the AUTO TRANS button carries out the transition automatically, using the preset transition time.

Transition lever

Moving the transition lever in the direction shown by the LED indicators (△▽) progresses the transition in sync with the lever movement.

Switching with a dissolve

In a dissolve, one video image fades into another.

Basic operation for a dissolve

The basic procedure for a dissolve is as follows.

Press the MIX button.

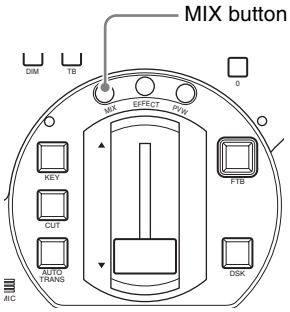
↓

Select the next video to be output using the NEXT selection buttons.

↓

Carry out the transition.

1 Press the MIX button.



The MIX button lights amber, and the effect indication on the operation screen shows the current mix state (progress of the dissolve).

Notes

- The mix state shows the current transition time setting.
- You can still change the transition time at this point. To make this change, follow the procedure in "Changing the Transition Time" (page 84).

2 Determine the next program output video, and select this with the NEXT selection button.

The selected video appears in the PVW viewer.

3 Carry out the transition with the AUTO TRANS button or transition lever.

The NEXT selection video dissolves into the program output video.

Each press of the AUTO TRANS button, or operation of the transition lever, carries out a dissolve transition from the program output video to the NEXT selection video.

Switching with a wipe

In a wipe, two video images occupy the display simultaneously, with the area occupied by one growing until if wipes out the other. You can choose from sixteen different wipe patterns.

Basic operation for a wipe transition

The basic procedure for a wipe transition is as follows.

Press the EFFECT button.

↓

Select the effect pattern in the top menu with [Effect Pattern].

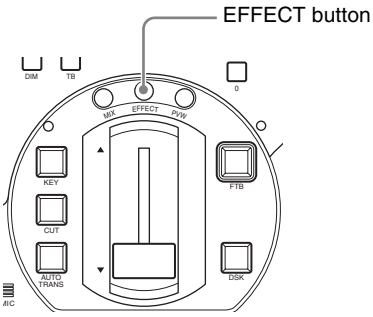
↓

Select the next video to be output using the NEXT selection buttons.

↓

Carry out the transition.

1 Press the EFFECT button.



The EFFECT button lights amber, and the effect indication shows the current effect state.

Notes

- The current effect state shows the transition time and effect pattern settings.
- You can change the transition time. To change the setting, follow the procedure in “Changing the Transition Time” (page 84).

2 Select the effect pattern.

To change the effect pattern, follow the procedure in “Changing the Effect Pattern” (page 85).

3 Determine the next program output video, and select this with the NEXT selection button.

The selected video appears in the PVW viewer.

4 Carry out the transition with the AUTO TRANS button or transition lever.

The program output video changes to the NEXT selection video by a wipe transition.

Each press of the AUTO TRANS button, or operation of the transition lever, the program output video changes to the NEXT selection video by a wipe transition.

Note

You can apply an edge effect to the wipe pattern. For details, see “Applying Edge Effects” (page 109).

Changing the Transition Time

Before carrying out a transition with the AUTO TRANS button, set the transition time.

1 Press the MIX button or EFFECT button.

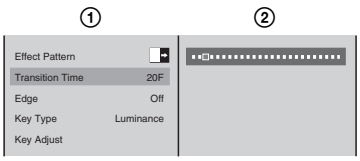
The current settings appear in the effect display.

2 Press the MENU button.

3 In the top menu, select [Video Effect].

4 ① Select [Transition Time], and confirm; ② move the slider to set the transition time.

The transition time is set in frame units.



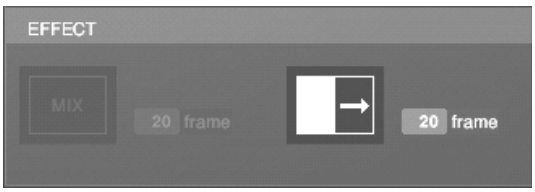
5 Press the MENU button to close the menu.

The set transition time appears in the effect display.

Changing the Effect Pattern

1 Press the EFFECT button.

The current settings appear in the effect display.



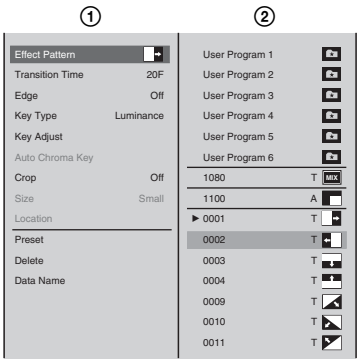
Note

Here you can also press the EFFECT button once more to recall the [Effect Pattern] menu, and skip from step 2 below as far as ① within step 4.

2 Press the MENU button.

3 In the top menu, select [Video Effect].

4 ① Select [Effect Pattern], and confirm; ② select the wipe pattern from the list, and confirm.



5 Press the MENU button to close the menu.

Note

You can also close the menu by pressing the EFFECT button.

The selected effect pattern appears in the effect display.

Using Picture-in-Picture (PinP) for Combining Videos

You can generate a picture-in-picture effect by embedding a video within another video.

Note

When you use a picture-in-picture for combining videos, you can check the results in the PVW viewer before program output. For details, see "Checking the Results of Combining Videos (Effect Preview)" (page 110).

Basic picture-in-picture operations

The basic procedure for using a picture-in-picture for combining videos is as follows.

Select a picture-in-picture from [Effect Pattern] of the top menu.

↓

Press a NEXT selection button to select a video to embed within the video.

↓

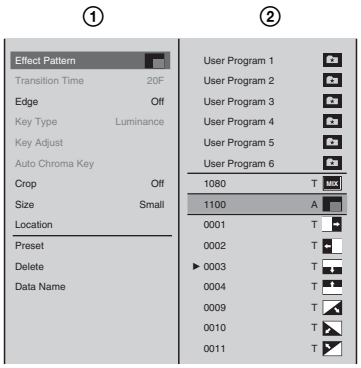
Execute the transition.

For details on executing transitions, see "Basic transition effect operations" (page 80).

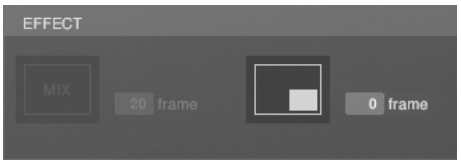
1 Press the MENU button.

2 In the top menu, select [Video Effect].

3 ① Select [Effect Pattern], and confirm; ② select a picture-in-picture from the list, and confirm.



The picture-in-picture information appears in the effect display.



4 Press the MENU button to close the menu.

5 Decide which video to embed, and then press the corresponding NEXT selection button to specify the video.

The selected video is displayed in the PVW viewer.

Caution

When the following material is selected, the NEXT selection button flashes and the picture-in-picture effect is not applied.

- Material assigned to INT
- Material being used for program output
- Material being used for keying

6 Use the AUTO TRANS button, CUT button, or transition lever to execute the transition.

The NEXT selection video is embedded in the program output video.

The NEXT selection button changes to red when the transition is complete.

Press the AUTO TRANS button or CUT button once more or move the transition lever in the opposite direction to remove the embedded video and return the color of the NEXT selection button to orange.

Caution

The transition time is always 0.

Notes

- You can crop the unwanted portions from the embedded video. For details, see “Cropping Unwanted Portions From the Video Being Combined” (page 109).
- You can apply an edge to the frame of the video to be embedded. For details, see “Applying Edge Effects” (page 109).

Adjusting the Picture-in-Picture (PinP)

You can set the size and display position of the video embedded using a picture-in-picture.

Note

You can make picture-in-picture adjustments while viewing the results in the PVW viewer before program output. For details, see “Checking the Results of Combining Videos (Effect Preview)” (page 110) and “Giving Priority to Displaying the PVW Viewer” (page 113).

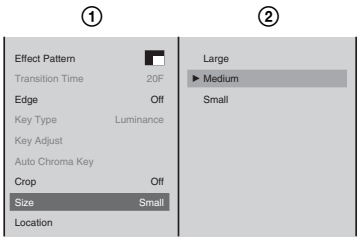
Changing the size of the video embedded

1 Perform steps 1 to 6 of “Basic picture-in-picture operations” (page 86).

2 Press the MENU button.

3 In the top menu, select [Video Effect].

4 ① Select [Size], and confirm; ② select a size, and confirm.



The functions of the setting items are as follows.
[Large]: 1/4 of size
[Medium]: 9/64 of size
[Small]: 1/16 of size

Large

Medium

Small

5 Press the MENU button to close the menu.

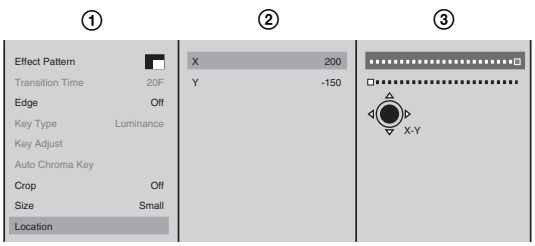
Specifying the position to embed the video

1 Perform steps 1 to 6 of “Basic picture-in-picture operations” (page 86).

2 Press the MENU button.

3 In the top menu, select [Video Effect].

4 ① Select [Location], and confirm; ② select [X] or [Y], and confirm; ③ specify the position with the slider.



The functions of the setting items are as follows.
[X]: Specifies the horizontal position.
[Y]: Specifies the vertical position.

Note

After step ①, you can specify the vertical or horizontal position by pressing up, down, left, or right on the positioner. (When using the positioner, you do not need to select [X] and [Y].)

Caution

When adjusting the position of the picture-in-picture image up, down, left, or right, the image shifts in 10-point increments.

5 Press the MENU button to close the menu.

Using Fade-to-Black (FTB)

This fades the video in from or out to a black screen.

Press the FTB button.
This fades out the program output to a black screen, except for any superimposed logo.

Press the FTB button once more to fade in the video from the black screen.

Note

While the screen is black, the PGM selection buttons change to amber.

Fading in a different video after fading out

1 After fading to a black screen, select a different video with the PGM selection buttons.

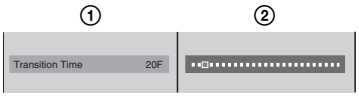
2 Press the FTB button.
This fades in the newly selected video.

Setting the fade to black transition time

1 Press the MENU button.

2 In the top menu, select [Fade To Black].

3 ① Select [Transition Time], and confirm; ② move the slider to set the transition time.



4 Press the MENU button to close the menu.

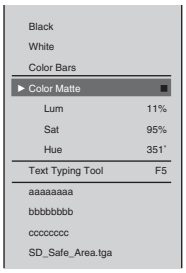
Using Color Bars and Color Mattes

The Internal Color Bar is provided for adjustment and test transmission. The Internal Color Matte is provided for a background.

1 Press INT in the NEXT selection buttons.

The INT source selection menu appears in the menu display.

2 Select the color bars or color matte you want to show, and confirm.



Note

This unit can output the following color bars for each video output signal format and PGM output aspect ratio setting.

PGM output aspect ratio	Video output signal format	
	NTSC/60 Hz	PAL/50 Hz
4:3 mode	SMPTE color bar (75%)	EBU color bar (100%)
16:9 SD mode	SMPTE color bar	EBU color bar
16:9 HD mode	EBU color bar	

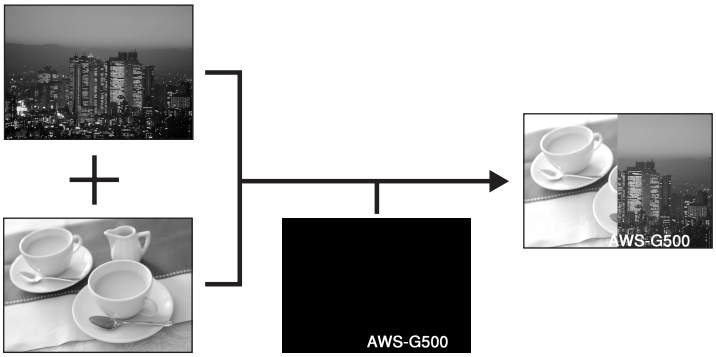
The selected internal video signal appears in the “INT” source viewer.

Note

You can change the color of the color matte. For details, see “Adjusting Color Matte” (page 215).

Using the Downstream Key (DSK) Function To Add Text or an Image

You can add text or an image to video that already includes an effect or combination.
This is useful for adding subtitles, for example.



DSK (downstream) key

Basic downstream key operations

The basic procedure for downstream keying is as follows.

Select the image to be imported.

↓

Select a graphics file from the INT source selection menu.

↓

Press the DSK button to insert the key.

Inserting a downstream key

In order to use a downstream key for text or graphics, it must first be imported onto the internal hard disk of this unit.

For details on creating a graphics file, see "Creating a Title Graphic With the Text Typing Tool" (page 117).

For details on importing a graphics file, see "Importing Graphics Files" (page 235).

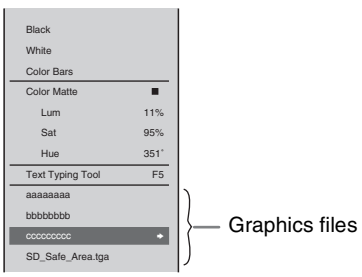
Note

You can also register graphics files to the numeric buttons on the front panel and access them whenever necessary. For details, see "Accessing Graphics Files Quickly" (page 94).

1 Press INT in the NEXT selection buttons.

The INT source selection menu appears.

2 Use the jog roller to select a graphics file displayed in the lower part of the INT source selection menu, and confirm.



The selected graphics file appears in the “INT” source viewer.

Notes

- While the graphics file is being read in, the message “Loading...” appears at the bottom of the PVW viewer and in the device status in the source viewer.
- **File information display**
  By pressing the → button on the jog roller or the → key on the keyboard while a graphics file is selected, you can display information on the graphics file and a thumbnail, as shown below, for as long as you hold down the button or key.

3 Press the DSK button.

DSK button lights red, and the graphics file image appears in the PGM viewer.

If you press the DSK button once more, the inserted image is removed. Each press of the DSK button alternately inserts or removes the image.

Note

If you change the video to a black screen using FTB, no downstream key is output. In this case, the DSK button lights amber.

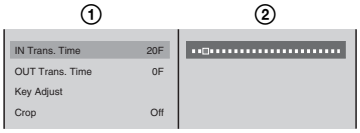
Setting the downstream key transition times

You can set the DSK transition times which are the times taken for the text or image to be gradually inserted, or to be gradually removed. These are set in frame units.

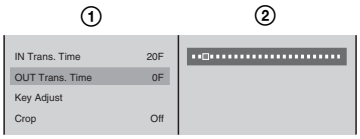
1 Press the MENU button.

2 In the top menu, select [DSK].

3 ① Select [IN Trans. Time], and confirm; ② move the slider to set the time until the image appears.

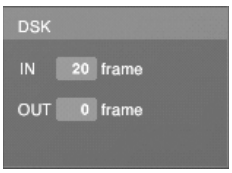


4 ① Select [OUT Trans. Time], and confirm; ② move the slider to set the time to disappear.



5 Press the MENU button to close the menu.

The DSK transition time setting appears in the DSK display of the effect display in the operation screen.



Adjusting the downstream key

You can adjust the parameters for inserting text or image, or crop unwanted portions.

1 Press the DSK button to insert the image.

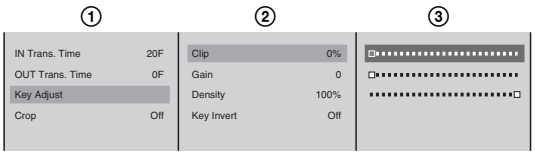
2 Press the MENU button.

3 In the top menu, select [DSK].

4 In the submenu, set the following adjustment items.

Adjusting the outline of the text or image

① Select [Key Adjust], and confirm; ② select the item to adjust, and confirm; ③ adjust the sliders.



The functions of the setting items are as follows.

[Clip]: Adjusts the threshold level for keying.

[Gain]: Adjusts the sharpness of the key outline.

[Density]: Adjusts the density of the text or image to be inserted.

Note

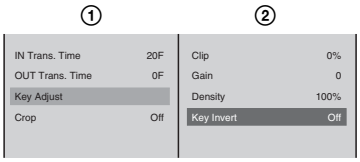
If you have recalled and adjusted a graphics file, the adjusted values of the graphics file change as follows depending on the next file recalled:

- When a file with no alpha channel is recalled: adjusted values remain unchanged.
- When a file with an alpha channel is recalled: values return to their default settings.

Inverting the key

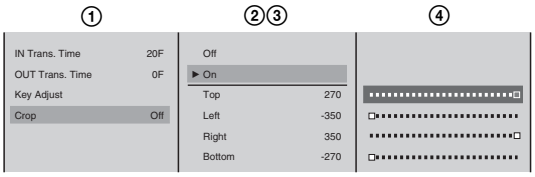
You can invert the displayed parts and non-displayed parts of the combined material.

① Select [Key Adjust], and confirm; ② select [Key Invert], and confirm. [Key Invert] turns on or off each time it is selected.



Cropping unwanted portions of the text or image

① Select [Crop], and confirm; ② select [On], and confirm; ③ select the side (top, bottom, left, or right) to be displayed, and confirm; ④ move the slider to crop.



5 Press the MENU button to close the menu.

Accessing Graphics Files Quickly

If you register a graphics file to one of the numeric buttons on the front panel, you can quickly access that file whenever necessary.

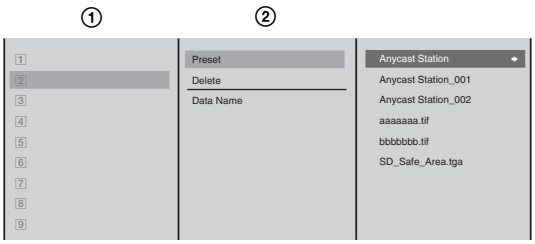
Registering graphics files as presets

1 Press INT in the NEXT selection buttons, and press it again after the INT source selection menu appears.

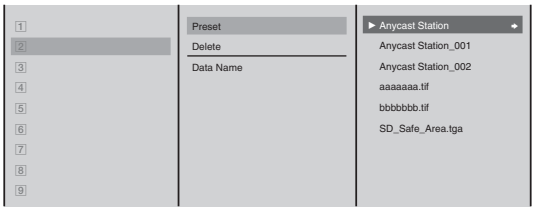
The graphics preset menu appears.

2 ① Select the number to register the graphics file to, and confirm; ② select [Preset], and confirm.

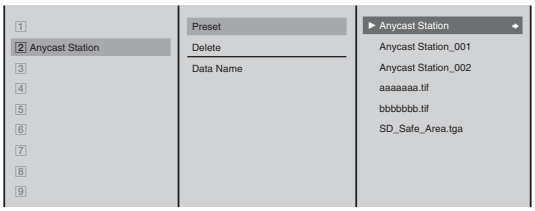
A list of graphics files that you can register appears.
Example: When registering to numeric button [2].



3 Select a graphics file, and confirm.



The graphics file is registered as a preset, and the file name appears next to the number selected previously.



4 Press the MENU button to close the menu.

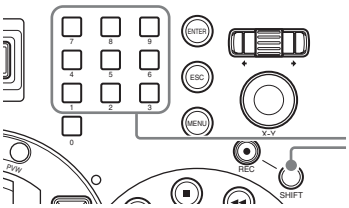
Registering graphics files without displaying the menu

You can also register graphics files without displaying the graphics preset menu.

1 Press INT in the NEXT selection buttons.
The menu that appears next is unimportant.

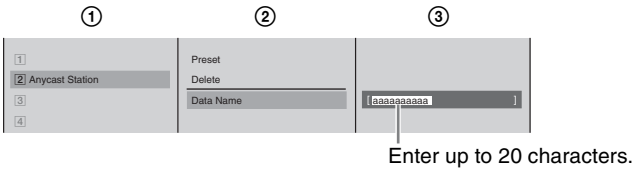
2 Display the graphics file to register in the INT source viewer.

3 Press a numeric button (from [1] to [9]) while holding down the SHIFT button.

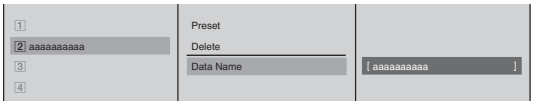


Applying a name to the preset

In the graphics preset menu, ① select the number of the preset to apply a name to, and confirm; ② select [Data Name], and confirm; ③ enter the data name in the input box, and confirm.



The data name is registered.



Accessing the graphics files

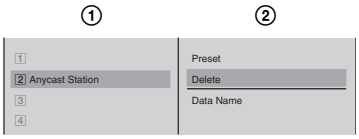
1 Press INT in the NEXT selection buttons.
The menu that appears next is unimportant.

2 Press the numeric button to which the graphics file is assigned.
The accessed graphics file appears in the INT source viewer.

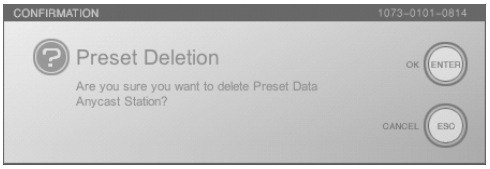
Deleting a registered preset

1 Press INT in the NEXT selection buttons, and press it again after the INT source selection menu appears.
The graphics preset menu appears.

2 ① Select the number for the preset you want to delete, and confirm; ② select [Delete], and confirm.



The following confirmation message appears.



Note

By pressing the ENTER button while holding down the SHIFT button, you can delete all of the presets registered to the numeric buttons 1 to 9 simultaneously.

3 Press the ENTER button.

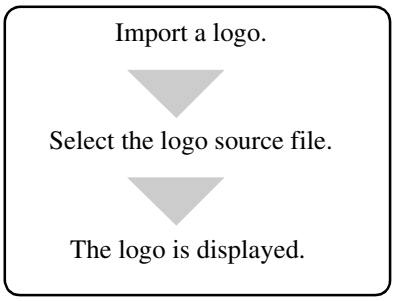
The preset is deleted, and the number display turns gray.

Showing a Logo on the Screen

For copyright protection purposes, you can superimpose a logo (160×120 pixel graphic) on the video.
When the logo is enabled, the logo is superimposed on the program output video.

Basic operation for showing a logo

The basic procedure for showing a logo is as follows.



Showing a logo in the video

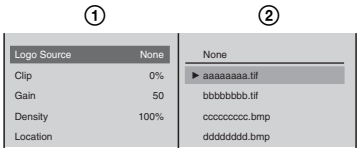
To show a logo, first it is necessary to import the logo file to the internal hard disk of this unit.

For details on importing a logo file, see "Importing Logo Files" (page 237).

1 Press the MENU button.

2 In the top menu, select [Logo].

3 ① Select [Logo Source], and confirm; ② select the logo file from the list, and confirm.



The image is inserted in both the PGM viewer and PVW viewer.

Notes

- By selecting a logo file from the list, it always appears in the program output video. If you do not want to show the logo, select [None].
- **File information display**
  By pressing the → button on the jog roller or the → key on the keyboard while a logo file is selected, you can display information on the logo file and a thumbnail, as shown below, for as long as you hold down the button or key.

4 Press the MENU button to close the menu.

Adjusting the logo display

Adjust the parameters for logo insertion, and set the logo position.

1 Show the logo.

For details of the operation, see "Showing a logo in the video" (page 97).

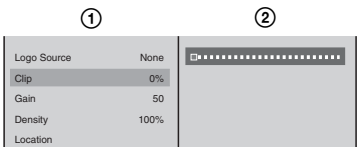
2 Press the MENU button.

3 In the top menu, select [Logo].

4 In the submenu, set the following adjustment items.

Adjusting the outline of the logo

① Select one of [Clip], [Gain], and [Density], and confirm; ② adjust the slider.



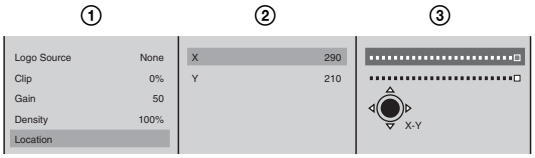
The functions of the setting items are as follows.
[Clip]: Adjusts the threshold level for the logo key.
[Gain]: Adjusts the sharpness of the outline.
[Density]: Adjusts the density of the text to be inserted.

Note

When you have recalled a logo file and made adjustments, the logo file adjustment values for the logo file depend on the next recalled file as follows:
- When a file with no alpha channel is recalled: the adjustments are maintained as is.
- When a file with an alpha channel is recalled: the adjustments are returned to their default values.

Specifying the position of the logo display

① Select [Location], and confirm; ② select [X] or [Y], and confirm; ③ specify the position with the sliders.



The functions of the setting items are as follows.
[X]: Specifies the horizontal position.
[Y]: Specifies the vertical position.

Note

After Step ①, you can specify the vertical or horizontal position by just pressing the top, bottom, left, or right part of the positioner. (If you use the positioner, there is no need to select [X] and [Y].)

5 Press the MENU button to close the menu.

Using Luminance Keying

Video A and video B images are combined by comparing the components of brightness (luminance) to cut unneeded portions of the video B image. Generally, bright lettering is drawn on a black background, and this is used as the key.

Notes

- Pressing the KEY button switches to key mode (the KEY button, NEXT selection buttons, MIX button or EFFECT button light green, and the AUTO TRANS button, CUT button, and transition lever now apply a keying operation).
- You can also register graphics files to the numeric buttons on the front panel and access them whenever necessary. For details, see "Accessing Graphics Files Quickly" (page 94).

Basic operation for luminance keying

The basic procedure for luminance keying is as follows.

Press the KEY button (Switches to key mode).

↓

Select the key video with a NEXT selection button.

↓

Select [Luminance Key] for [Key Type] in the top menu.

↓

Select the effect pattern with the MIX button or EFFECT button.

↓

Adjust the key video.

↓

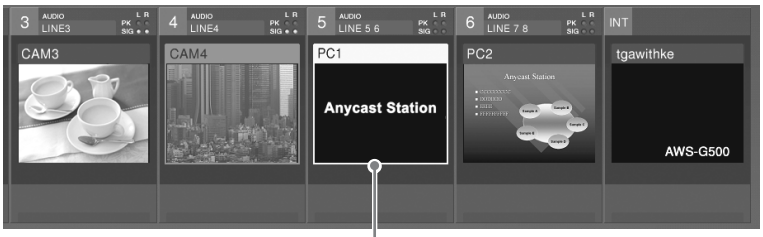
Carry out the transition.

1 Press the KEY button.

The KEY button, NEXT selection buttons, and the MIX or EFFECT button light green and are now used for video keying.

2 Select the video for keying by pressing the NEXT selection button assigned to it.

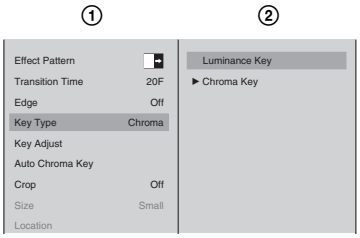
A green frame appears around the selected video in the source viewer.



3 Press the MENU button.

4 In the top menu, select [Video Effect].

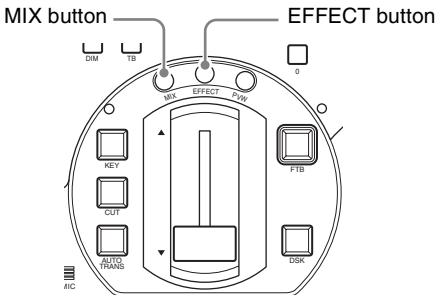
5 ① Select [Key Type], and confirm; ② select [Luminance Key], and confirm.



"Lum" appears in the key status display area of the operation screen.

6 Press the MIX button or EFFECT button.

The button green, and the details of the current effect appear in the effect display.



Notes

- You can change the transition time for the effect. To make this change, follow the procedure in "Changing the Transition Time" (page 84).
- You can change the effect pattern. To make this change, follow the procedure in "Changing the Effect Pattern" (page 85).
- In key mode, you can maintain the transition time, effect pattern, and edge setting adjustments for keying.

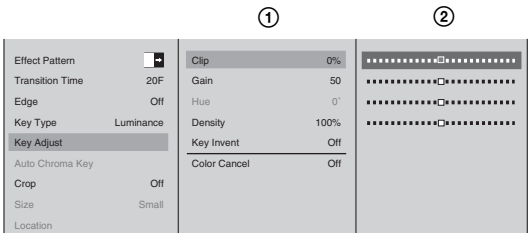
7 Select [Key Adjust], confirm, and adjust the key video with the submenu.

Note

You can make keying adjustments while viewing the results in the PVW viewer before program output. For details, see "Checking the Results of Combining Videos (Effect Preview)" (page 110) and "Giving Priority to Displaying the PVW Viewer" (page 113).

Sharpening the outline of the key

① Select one of [Clip], [Gain], and [Density], and confirm; ② adjust the slider.



The functions of the setting items are as follows.

[Clip]: Adjusts the threshold for background cutout.

[Gain]: Adjusts the sharpness of the outline.

[Density]: Adjust the density of the video to be combined.

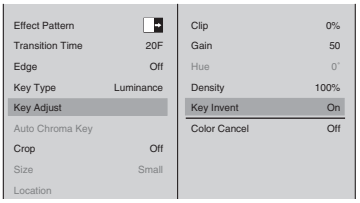
Note

If you have recalled and adjusted a graphics file, the adjusted values of the graphics file change as follows depending on the next file recalled:

- When a file with no alpha channel is recalled: adjusted values remain unchanged.
- When a file with an alpha channel is recalled: values return to their default settings.

Inverting the luminance key

Select [Key Invent] from the list of items to adjust, and confirm.
[Key Invent] turns on or off each time it is selected.



8 Press the MENU button to close the menu.

9 Apply the video effect using the AUTO TRANS button, CUT button, or transition lever.

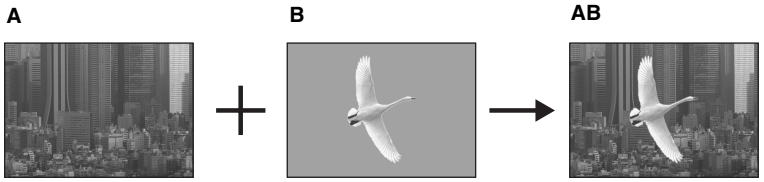
This keys the NEXT selection into the program output video.

The “KEY” indicator on the operation screen lights red.

Press the AUTO TRANS button or CUT button once more, or operate of the transition lever in the opposite direction, to remove the combined video effect.
The “KEY” indicator on the operation screen also turns off.
Each press of the AUTO TRANS button or CUT button or operation of the transition level alternately inserts or removes the video effect.

Using Chroma Keying

Two video images are combined by removing portions of video signal B that include a particular color (chroma) and superimposing that image onto video A. Typically, a subject is captured in front of a blue background (called a “blue screen”). Any portion of the background containing blue is then removed, and only the subject is combined with the background video (A).
You can set the chroma key by automatically specifying a color from the key image with the cursor or by manually specifying each color setting. Manual specification of settings is possible after performing automatic specification as well.



Notes

- Pressing the KEY button switches to key mode (the KEY button, NEXT selection buttons, MIX button or EFFECT button light green, and the AUTO TRANS button, CUT button, and transition lever now apply a keying operation).
- You can also register graphics files to the numeric buttons on the front panel and access them whenever necessary. For details, see “Accessing Graphics Files Quickly” (page 94).

Basic operation for chroma keying

The basic procedure for chroma keying is as follows.

Press the KEY button (Switches to key mode).

Select the key video with a NEXT selection button.

Select [Chroma Key] for [Key Type] in the top menu.

Select the effect pattern with the MIX button or EFFECT button.

Carry out the transition.

* If no further adjustment is necessary, this concludes operation during the broadcast.

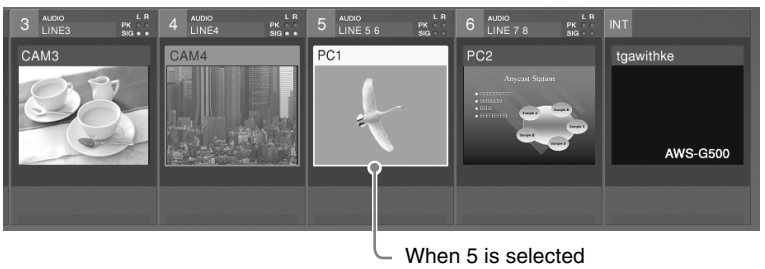
Adjust the chroma key settings.

1 Press the KEY button.

The KEY button, NEXT selection buttons, and MIX or EFFECT button light green and are now used for video keying.

2 Select the video for keying by pressing the NEXT selection button assigned to it.

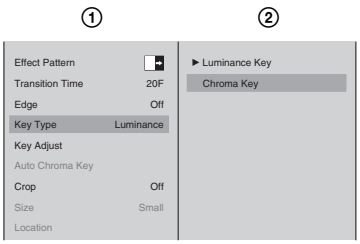
A green frame appears around the selected video in the source viewer.



3 Press the MENU button.

4 In the top menu, select [Video Effect].

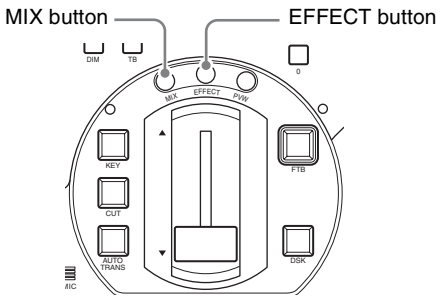
5 ① Select [Key Type], and confirm; ② select [Chroma Key], and confirm.



"Chroma" appears in the key status display area of the operation screen.

6 Press the MIX button or EFFECT button.

The button green, and the details of the current effect appear in the effect display.



Notes

- You can change the transition time for the effect. To make this change, follow the procedure in "Changing the Transition Time" (page 84).
- You can change the effect pattern. To make this change, follow the procedure in "Changing the Effect Pattern" (page 85).
- In key mode, you can maintain the transition time, effect pattern, and edge setting adjustments for keying operations.

7 Apply the effect using the AUTO TRANS button, CUT button, or transition lever.

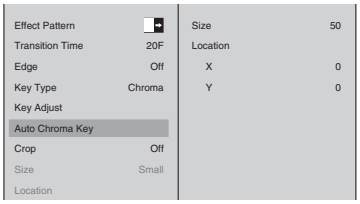
The keying results using the default or previously used settings displays.

8 Adjust the chroma key settings.

To adjust the settings automatically, see "Adjusting the chroma key automatically" (page 106).
To adjust the settings manually, see "Adjusting each setting manually" (page 107).

Adjusting the chroma key automatically

1 Select [Auto Chroma Key], and confirm.



Auto Chroma Key Mode is enabled, and a cursor appears in the PGM viewer. An image with the color specified by the cursor removed appears in the PGM viewer.

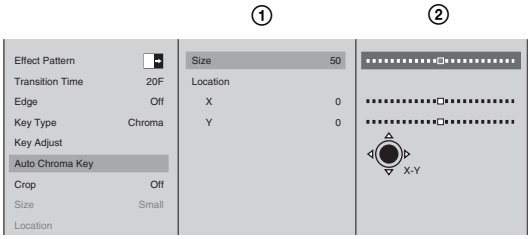
PGM viewer

2 Move the cursor, and specify the color to remove.

You can adjust the size of the frame used to specify the color and adjust the position of the cursor with the following procedures.

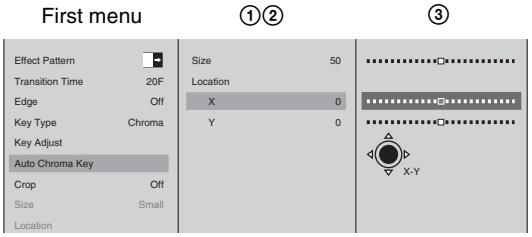
To adjust the size of the frame

① Select [Size], and confirm; ② adjust the size with the slider.



To adjust the position of the cursor

① Select [Location], and confirm; ② select [X] or [Y], and confirm; ③ specify the position with the slider.



The functions of the setting items are as follows.

[X]: Specifies the horizontal position of the cursor.

[Y]: Specifies the vertical position of the cursor.

Note

During Auto Chroma Key mode, you can adjust the vertical and horizontal position of the cursor by pressing up, down, left, or right on the positioner.

3 Press the ← button on the jog roller or ← key on the keyboard to return to the first menu.

Auto Chroma Key mode ends.

Adjusting each setting manually

When you want to fine-tune the results of automatic chroma key adjustment, you can specify each chroma key setting manually. You can also replace background colors (typically blue) that seep into the outline of the key video (such as into a subject's hair) with colors such as gray to make them less conspicuous.

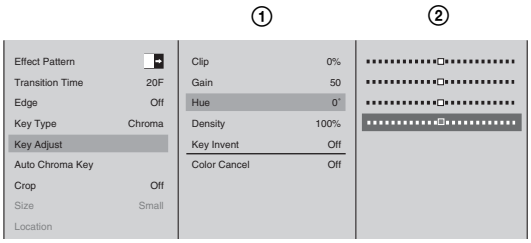
Note

After Auto Chroma Key is performed, the Auto Chroma Key values appear for the [Clip], [Gain], and [Hue] settings.

1 Select [Key Adjust], confirm, and configure the following settings in the submenu.

Fine-tuning the results from automatic adjustment

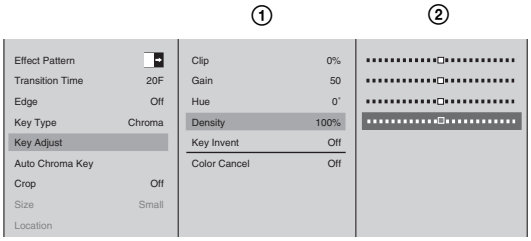
① Select [Clip], [Gain], or [Hue] from the list of items to adjust, and confirm; ② adjust the setting with the slider.



The functions of the setting items are as follows.
[Clip]: Adjusts the threshold level for the background cutout.
[Gain]: Adjusts the sharpness of the outline.
[Hue]: Adjusts the hue.

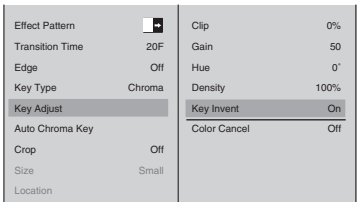
Adjusting the density of the key video

① Select [Density] from the list of items to adjust, and confirm; ② adjust the setting with the slider.



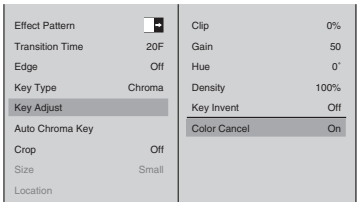
Inverting the key

Select [Key Invert] from the list of items to adjust, and confirm.
[Key Invert] turns on or off each time it is selected.



Making background colors that seep into the key video less conspicuous

Select [Color Cancel] from the list of items to adjust, and confirm.
[Color Cancel] turns on or off each time it is selected.



Caution

Use this function for adjustment after performing Auto Chroma Key.
If you use this function after adjusting the chroma key manually, you may not get the correct results.

2 Press the MENU button to close the menu.

Adjusting key settings during program output

You can adjust the key settings without affecting the program output.

Note

Be sure give display priority to the PVW viewer. For details, see "Giving Priority to Displaying the PVW Viewer" (page 113).

1 Perform steps 1 to 5 of "Basic operation for chroma keying" (page 103).

2 Press the PVW button.

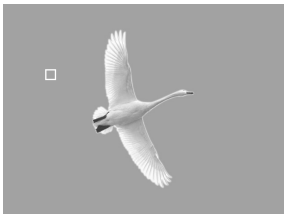
3 Adjust the chroma key settings.

For details on how to make adjustments, see steps 1 to 2 of "Adjusting the chroma key automatically" (page 106) or step 1 of "Adjusting each setting manually" (page 107).

Note

The cursor appears when Auto Chroma Key is set to "On" during priority display for the PVW viewer.

When [Auto Chroma Key] is On



PVW viewer

When [Auto Chroma Key] is Off

PVW viewer

4 Apply the effect using the AUTO TRANS button, CUT button, or transition lever.

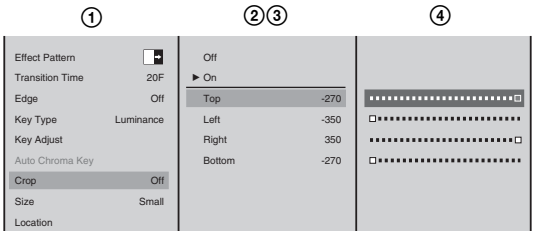
Cropping Unwanted Portions From the Video Being Combined

1 Combine videos using a picture-in-picture or keying.

2 Press the MENU button.

3 In the top menu, select [Video Effect].

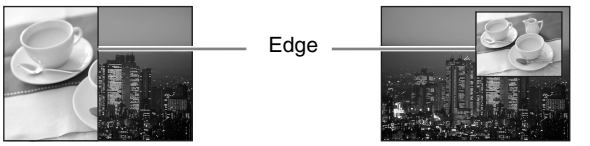
4 ① Select [Crop], and confirm; ② select [On], and confirm; ③ select the side (top, bottom, left, or right) to crop, and confirm; ④ move the slider to crop.



5 Press the MENU button to close the menu.

Applying Edge Effects

Apply an edge to a video border when using a wipe effect or to a picture-in-picture frame.



For a wipe

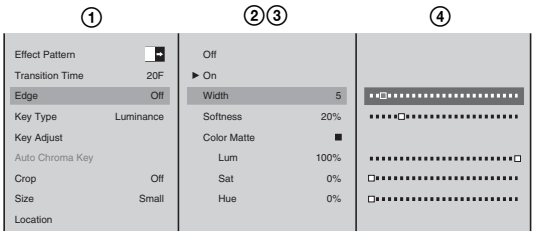
For a picture-in-picture

1 First set the effect pattern.

2 Press the MENU button.

3 In the top menu, select [Video Effect].

4 ① Select [Edge], and confirm; ② select [On], and confirm; ③ select the item to be set, and confirm; ④ adjust the slider.



The functions of the setting items are as follows.

[Width]: Adjusts the width of the border.

[Softness]: Adjusts the blurriness of the edge.

[Color Matte]: Changes the color of the border. Select [Lum] (luminance), [Sat] (saturation), or [Hue], and adjust the slider.

Checking the Results of Combining Videos (Effect Preview)

You can preview and adjust the results of executing picture-in-pictures and keying in the PVW viewer before program output.

You can set the PVW viewer to not be hidden while the menu is displayed when you are making adjustments. For details, see "Giving Priority to Displaying the PVW Viewer" (page 113).

Note

Press the PVW button to switch to PVW mode (in which the PVW viewer is used for effect preview).

Basic operation for previewing in the PVW viewer

The basic procedure for previewing in the PVW viewer is as follows.

For picture-in-picture

Select a picture-in-picture from [Video Effect] of the top menu.

For keying

Press the KEY button (the NEXT selection buttons switch to keying video selection).

▼

Select the key video with a NEXT selection button.

▼

Press the PVW button (switch to PVW mode).

▼

Carry out the transition (switch to program output).

For picture-in-picture

1 Perform Steps 1 to 5 of “Basic picture-in-picture operations” (page 86).

2 Press the PVW button.

The PVW button lights orange and a preview of the results of combining videos is displayed in the PVW viewer.

Check and adjust the results of combining videos and perform the following operation to execute program output.

For details on making picture-in-picture adjustments, see “Adjusting the Picture-in-Picture (PinP)” (page 87).

3 Use the AUTO TRANS button, CUT button, or transition lever to combine the videos.

The results of combining videos are sent as program output and displayed in the PGM viewer.
The preview in the PVW viewer disappears (changes to the results of the next transition).

4 Press the PVW button to end PVW mode.

The PVW viewer returns to the video selected with the NEXT selection button.

For keying

1 Press the KEY button.

The KEY button, NEXT selection buttons, and MIX or EFFECT button light green, and are now used for keying video.

2 Press the NEXT selection button assigned to the video to be combined.

A green border appears around the selected video in the source viewer, and the video appears in the PVW viewer.

3 Press the PVW button to switch to PVW mode.

The PVW button lights orange, and a preview of the combined result appears in the PVW viewer.

Adjustments with Auto Chroma Key

Note

Be sure give display priority to the PVW viewer. For details, see "Giving Priority to Displaying the PVW Viewer" (page 113).

When Auto Chroma Key is executed during PVW priority display, the video currently selected with the NEXT selection button displays along with the color specification cursor.
After you specify a color and exit Auto Chroma Key mode, you can confirm the combined results.

Check and adjust the combined result, and follow step 4 to switch to program output.

For details on making luminance key adjustments, see "Sharpening the outline of the key" (page 102).

For details on making chroma key adjustments manually, see "Adjusting each setting manually" (page 107).

4 Apply the effect using the AUTO TRANS button, CUT button, or transition lever.

The combined result is sent to program output, and appears in the PGM viewer.
The preview in the PVW viewer disappears (changes to the result of the next transition).

5 Press the PVW button, to end PVW mode.

The PVW viewer returns to the video selected from the NEXT selection buttons.

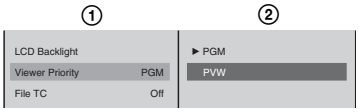
Giving Priority to Displaying the PVW Viewer

With the default setting, the PVW viewer on the left is hidden when three levels of submenus of the top menu are displayed. If you give priority to displaying the PVW viewer, the preview is always viewable because the PVW viewer shifts to the right (and the PGM viewer is hidden) when three levels of submenus are displayed. The effect display below the PVW viewer also moves with the PVW viewer.

1 Press the MENU button.

2 Select [Display] in the top menu.

3 ① Select [Viewer Priority], and confirm; ② select [PVW], and confirm.



Recalling Video Effects Instantly (Video Effect Snapshots)

By registering video effects set in the [Video Effect] menu as video effect snapshots, you can recall video effects instantly when necessary.

Registering video effect snapshots

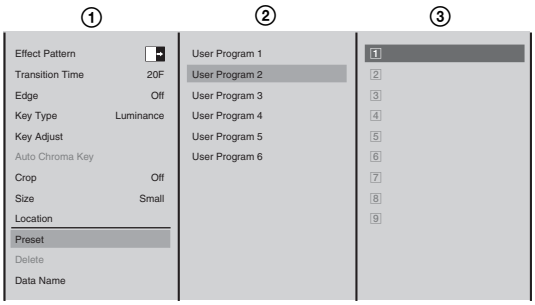
You can register up to nine video effect snapshots in each of the User Program folders (1 to 6) for a total of 54 snapshots. You can also register the same number of snapshots in key mode (the state entered when the KEY button is pressed).

1 Press the MENU button.

2 In the top menu, select [Video Effect].

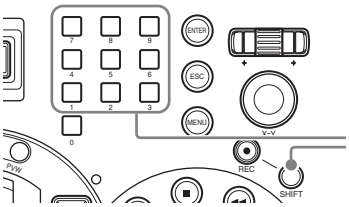
3 Configure the [Video Effect] setting items to the values you desire.

4 ① Select [Preset], and confirm; ② select the number of the folder (User Program) in which to register the settings, and confirm; ③ select the number to register the settings to, and confirm.



Note

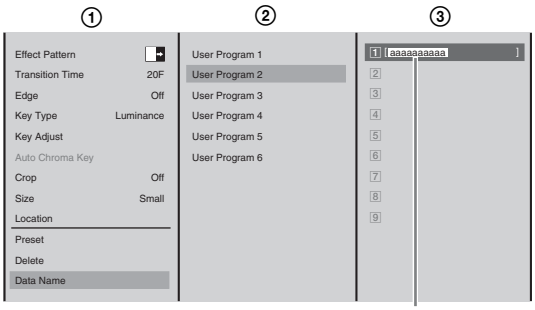
You can also register the settings by holding down the SHIFT button and pressing the numeric button (from 1 to 9) that corresponds to the number you want to register to. This shortcut can also be used in the [Effect Pattern], [Delete], and [Data Name] menus.



Hold down the SHIFT button, and press one of numeric buttons 1 to 9.

The video effects are registered as a video effect snapshot.

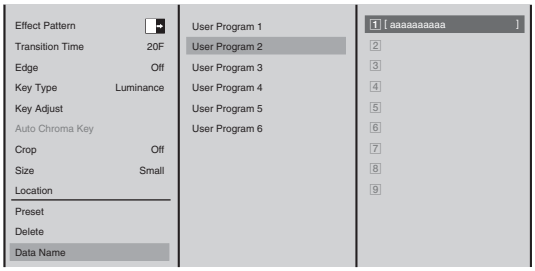
5 ① Select [Data Name], and confirm; ② select the folder (User Program) number, and confirm; ③ enter a name for the data in the input box, and confirm.



Enter up to 20 alphanumeric characters.

* The menu can only display a limited number of characters.

The data name is registered.



6 Press the MENU button to close the menu.

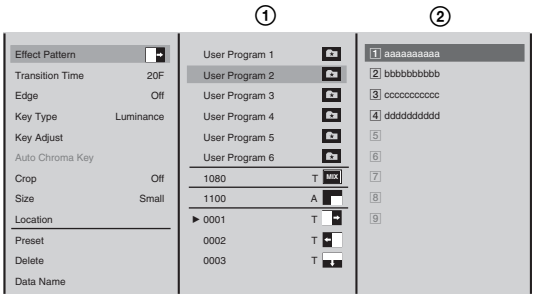
Recalling video effect settings

1 Press the EFFECT button.

Note

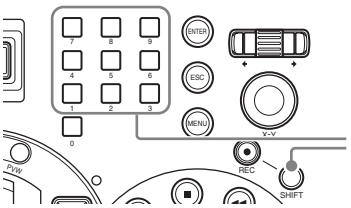
If the MIX button was lit before performing step 1, press the EFFECT button again.

2 ① Select the folder (User Program) number, and confirm; ② select a snapshot, and confirm.



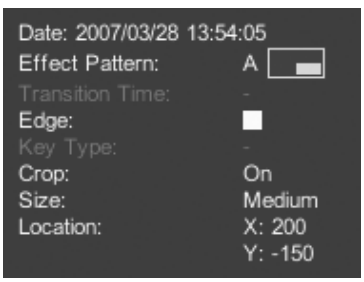
Notes

- You can also recall snapshots by pressing the numeric button (from 1 to 9) that corresponds to the number of the snapshot. This shortcut can also be used in the [Preset], [Delete], and [Data Name] menus.



Press one of the numeric buttons 1 to 9.

- **Data information display**
  By pressing the → button on the jog roller or the → key on the keyboard while a snapshot is selected, you can display information on the snapshot, as shown below, for as long as you hold down the button or key.
  Example: For a PinP effect



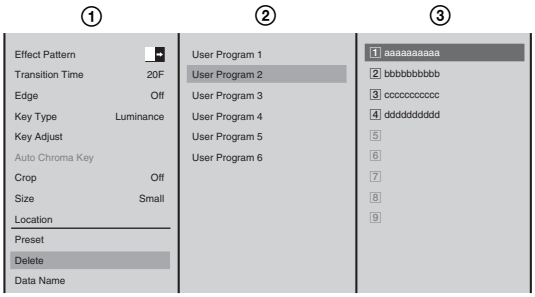
Through operations such as use of the transition lever and AUTO TRANS button, the video is switched with the recalled effects applied.

Deleting registered snapshots

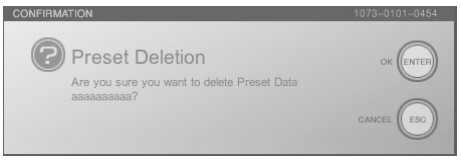
1 Press the MENU button.

2 In the top menu, select [Video Effect].

3 ① Select [Delete], and confirm; ② select the folder (User Program) number, and confirm; ③ select the snapshot to delete, and confirm.



The following confirmation message appears.



Note

By pressing the ENTER button while holding down the SHIFT button, you can delete all of the snapshots registered to the numeric buttons 1 to 9 inside the selected folder (User Program) simultaneously.

4 Press the ENTER button.

The registered snapshot is deleted, and the number display turns gray.

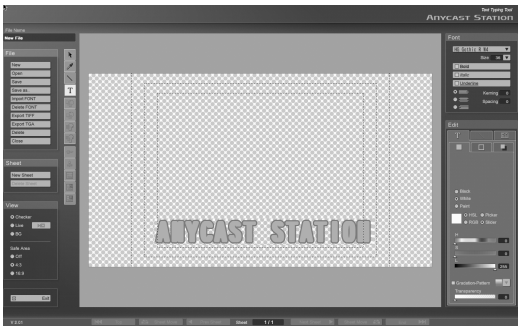
Creating a Title Graphic With the Text Typing Tool

Features of the Text Typing Tool Software

The Text Typing Tool software is an application for creating simple titles. You can switch between the Anycast Station main software (the main software) and this application as you proceed.

- A file created with the Text Typing Tool software is simultaneously saved in the Anycast Station main software, and can be used as a DSK (downstream key) or luminance key source.

Text Typing Tool software

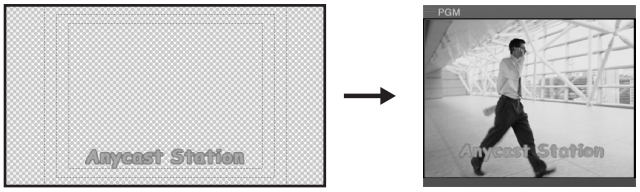


Anycast Station main software

- By capturing one scene of the program output video and showing it as a background, you can get an impression of the final result of superimposing of the key, and position objects (characters and lines) accurately.

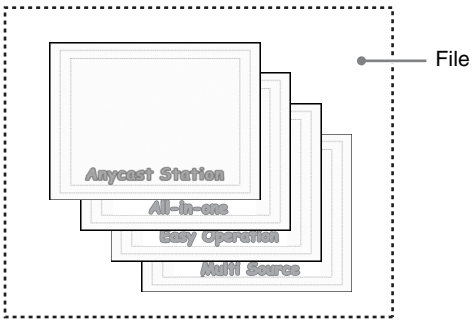
Sheets and files

In the Text Typing Tool software, you create one title as a single sheet.



Created sheet　　Superimposed result

You can save multiple related sheets (for example, for a single program) together in a file.



When creating similar title, you can copy a object to create the sheet, and therefore eliminate the trouble of creating a new file from scratch.

Flow of Operations

To use the Text Typing Tool software, it is first necessary to upgrade the operating software (When the software version you are using is 1.00).

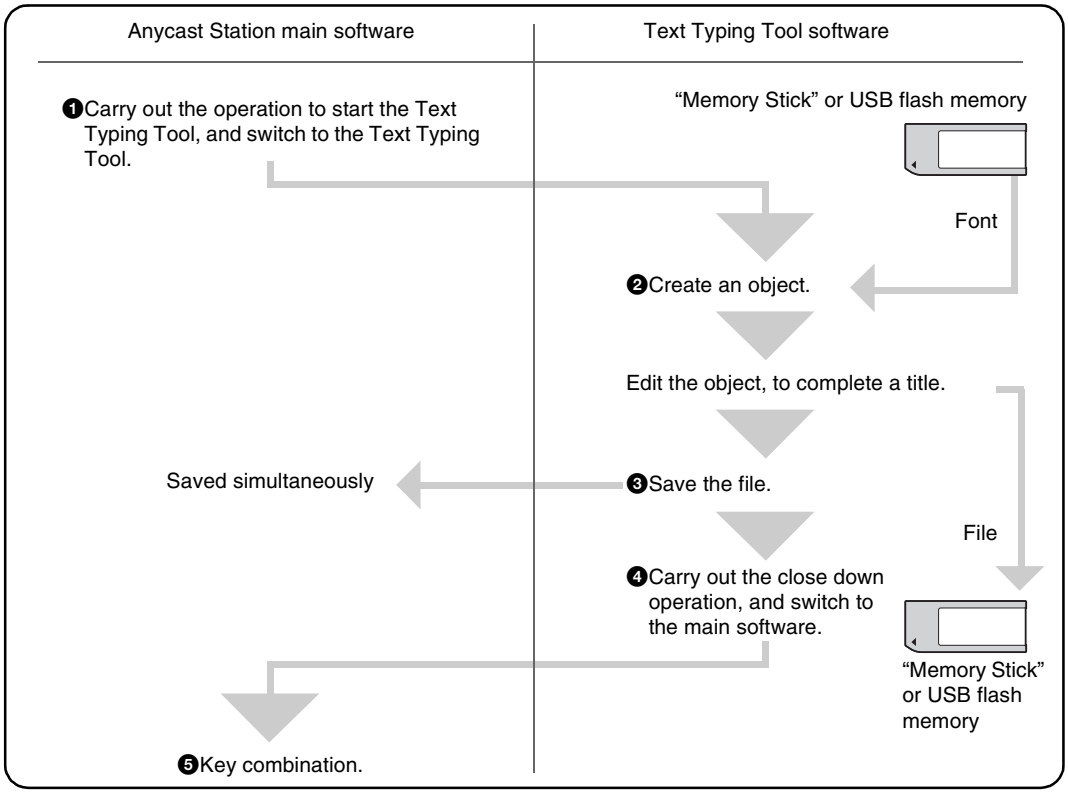
For details of how to upgrade, see "Upgrading the Operating Software" (page 270).

1 Press the ⏻ (power) button on the side panel.

The operation screen appears.

2 Press the keyboard F5 (Fn+5) key.

You can work by switching between the Anycast Station main software and the Text Typing Tool software.



Note

With a "Memory Stick" or USB flash memory, you can import font files, and export created titles. You can use exported files on such as a computer.

Caution

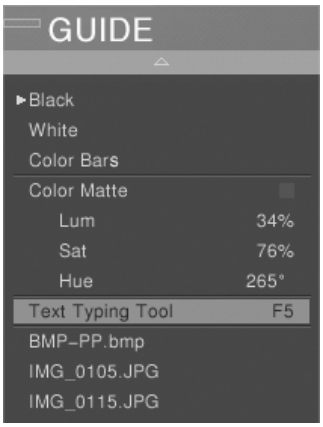
- It is not possible to use a USB mouse with the Anycast Station main software.
- If the USB mouse does not respond in the Text Typing Tool software, try disconnecting it and connecting to the other USB connector.
- The PGM output aspect ratio setting is carried over from the setting configured with the Anycast Station main software. However, changes to the setting made with the Text Typing Tool software do not carry over to the main software.

Starting Up

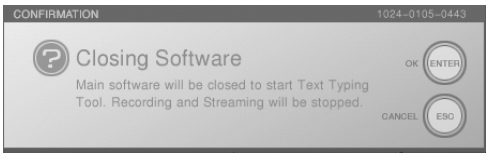
1 In the Anycast Station main software, press the “INT” NEXT selection button.

The INT material selection menu appears in the menu display.

2 Select [Text Typing Tool].



The following confirmation message appears.



3 Press the ENTER button on the front panel.

The screen goes black and the Text Typing Tool software starts.

Caution

- If you switch while using the Anycast Station main software, the image or sound may be distorted.
- If you switch while the Anycast Station main software is starting up, the system may not function correctly. Check that all viewers (PGM/PVW/material) have started up before switching to the Text Typing Tool software.
- Button operations performed while an application is closing will not be properly reflected on the system.

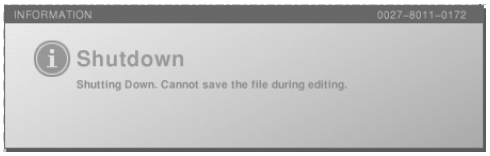
Note

You can also use the keyboard F5 (Fn+5) key to switch to the Text Typing Tool software.

Closing Down

To power off the unit

Press the ⏻ power button on the side panel.
The following message appears, the Text Typing Tool software ends, and the power is turned off.



Caution

If there is a file in the process of creation, the program will end without saving it.

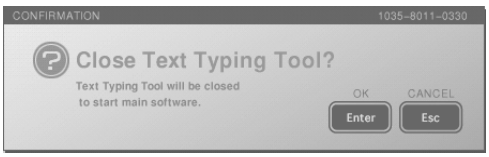
To close the Text Typing Tool software and start the Anycast Station main software

1 Click the [Exit] button at the lower left of the screen.

The screen goes black and the Anycast Station main software starts.

Note

You can also use the keyboard F5 (Fn+5) key to switch to the Anycast Station main software.
In this case, following confirmation message appears.



If a file is being created, a message appears to confirm whether to save the file.

2 Click the [Enter].

Standard Operations

This section describes standard operations used as various points in the Text Typing Tool software.

Mouse operations

- By connecting a USB mouse to the USB connector on the side panel, you can carry out mouse operations.
- You can also carry out mouse operations with the pointer of the supplied keyboard.

Standard button operations

Click a button to carry out its function.

Standard checkbox operations

Click a checkbox to insert or remove the check mark. The function is active as long as a check mark is present.

Standard pull-down list operations

This section describes standard pull-down list operations.
Click the ▼ button to display the pull-down list.

Standard keyboard operations

- The ↑ and ↓ keys move the focus (in reverse video) within the pull-down list.
- Press the Enter key to confirm the item which currently has the focus.
- Press the Fn+~` key (Esc) to cancel the selection, and close the pull-down list.

Standard operations for text input

The following are standard keyboard operations for text input.

Key	Operation
←, →	Move the cursor horizontally one position at a time.
↑	Move the cursor up one position at a time.
↓	Move the cursor down one position at a time.
Shift + ←, Shift + →	Select one character at a time, horizontally from the cursor position.
Delete	When there is a character selection: delete the selection. When there is no character selection: delete the character following the cursor.

Key	Operation
Backspace	When there is a character selection: delete the selection. When there is no character selection: delete the character before the cursor.
Enter	Newline
Esc	Remove the cursor leaving the characters unchanged.
Space	Insert a space.
Home	Move the cursor to the beginning.
End	Move the cursor to the end.
Alt + Enter	Confirm the entered text and exit the text input mode.

Standard tool operations

By clicking a tool in the tool operation section, you can use the function provided by the tool.
The tool operation continues until you select a different tool.

Other standard operations

The following standard operations can be carried out with the keyboard alone.

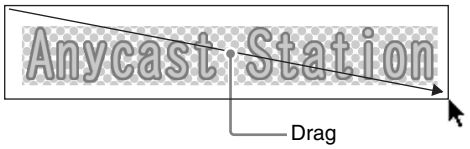
Key	Operation
Ctrl + z	Return to the previous state (Undo function)
Ctrl + y	Advance to the next state (Redo function)
Ctrl + x	Cut out an object
Ctrl + c	Copy an object In text input mode: copy the selected text
Ctrl + v	Paste an object In text input mode: paste the copied or cut text with the existing attributes where it is being pasted
Ctrl + a	Select all objects
Delete, Backspace	Delete an object

Object selection operations

1 Click the selection tool.

The icon turns green, and you can now select an object.

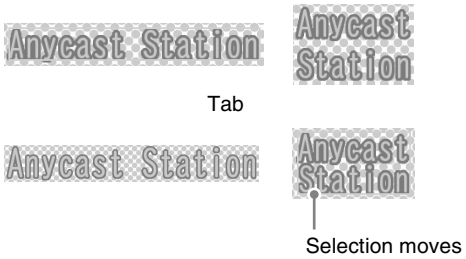
2 Click an object, or define a range by dragging.



An orange border appears around the object.
This is the selected state.

Notes

- If you drag over a range, this selects all objects within the range.
- When there are multiple objects, you can use the keyboard Tab key to move the selection to the next object.



Press the Shift+Tab keys to move the selection in the reverse direction.

- Hold down the Shift key and click an object to add to the selection.
- Double-click on the selected text object to switch to text input mode (page 132).

File Operations

This section describes file operations, including saving and deleting titles created with the typing tool software, export, and so on.

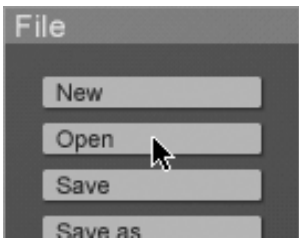
Creating a new file

1 In the file operation section, click the [New] button.

A new sheet appears.

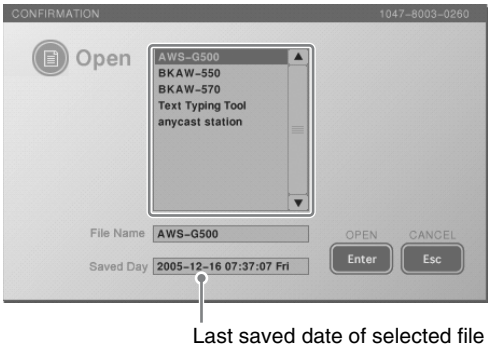
Opening an existing file

1 In the file operation section, click the [Open] button.



The [Open] screen appears.

2 Select the file name from the list.



Last saved date of selected file

3 Click the [Enter].

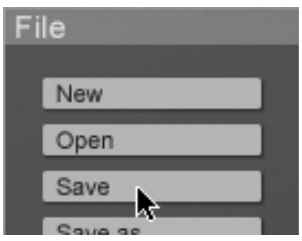
This opens the selected file.

Note

If even one of the fonts used by the file you are opening has been deleted from the unit, a message appears to confirm whether to substitute any missing font with another font on the unit when displaying the file. Clicking [Enter] displays the font selection list. If you select a font and click enter, the selected font is used and the file opens. If multiple fonts have been deleted, all the fonts are substituted with the selected font.

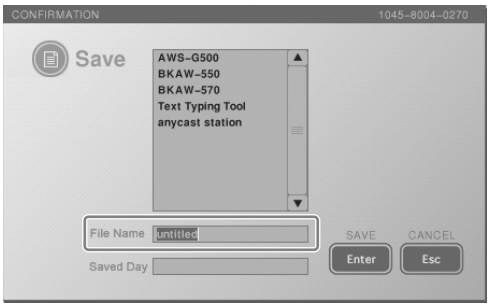
Saving a file

1 In the file operation section, click the [Save] button.



The [Save] screen appears.

2 Enter the file name in [File Name].



Caution

You can enter a file name as up to 20 alphanumeric characters, but there may not be room for the full name in text boxes or lists, or in the Anycast Station main software INT material selection menu.

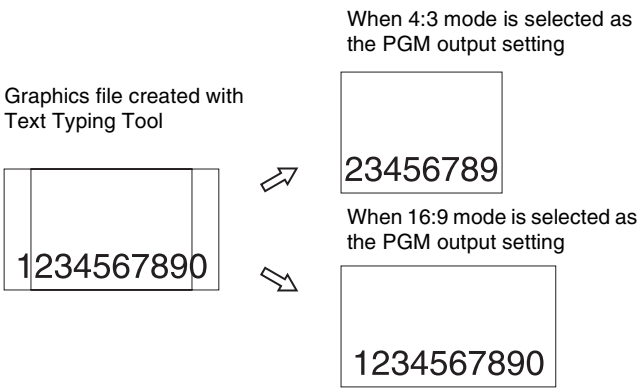
3 Click the [Enter].

A message appears while saving, and the file is saved.

The file is simultaneously saved in the Anycast Station main software. In the Anycast Station main software, the saved file appears if you press the “INT” NEXT selection button.

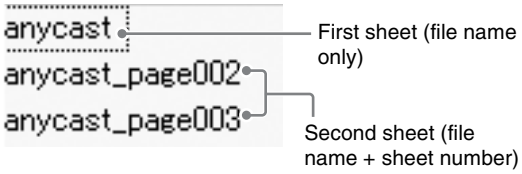
Caution

- If a file of the same name exists in the Anycast Station main software, it will be overwritten.
- The appearance of graphics files created in a 16:9 aspect ratio with the Text Typing Tool software may be different, depending on the PGM output aspect ratio setting. Be aware that their appearance differs from that of standard graphics file imports.



Notes

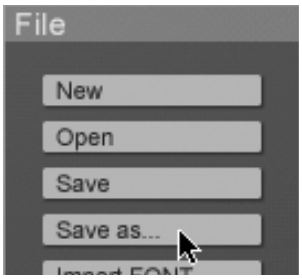
- When a file consisting of multiple sheets is saved, the second and subsequent sheets are named as follows with the file name + sheet number in the Anycast Station main software.



- A saved TIFF/TARGA file is saved with an alpha channel.

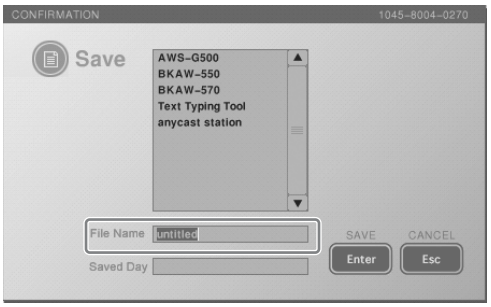
Saving a file with a new name

1 In the file operation section, click the [Save as...] button.



The [Save] screen appears.

2 Enter the file name in [File Name].



Caution

You can enter a file name as up to 20 alphanumeric characters, but there may not be room for the full name in text boxes or lists, or in the Anycast Station main software INT material selection menu.

3 Click the [Enter].

A message appears while saving, and the file is saved.

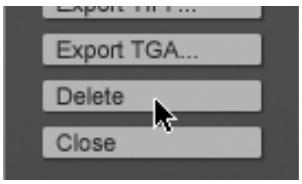
The file is simultaneously saved in the Anycast Station main software. In the Anycast Station main software, the saved file appears if you press the “INT” NEXT selection button.

Caution

If a file of the same name exists in the Anycast Station main software, it will be overwritten.

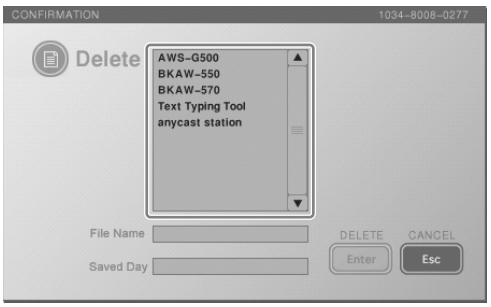
Deleting a file

1 In the file operation section, click the [Delete] button.



The [Delete] screen appears.

2 Select the file name from the list.

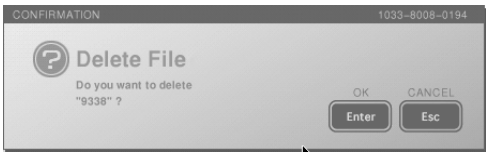


Note

You can select multiple files by clicking (or pressing the ↑ and ↓ keys) to select file names while holding down the Shift key or by dragging to select file names.

3 Click the [Enter].

The following confirmation message appears.



4 Click the [Enter].

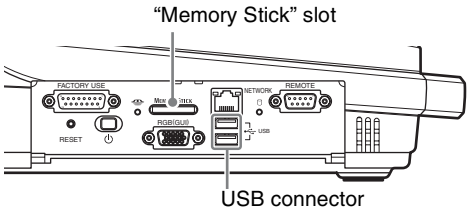
This deletes the selected file.

Exporting a file

By exporting a file created in the Text Typing Tool software to a “Memory Stick” or USB flash memory, you can use the file in another system.
You can export the file in TIFF format or TARGA format at 1,280×960 (4:3) or 1,706×960 (16:9) size.

1 Insert the “Memory Stick” or USB flash memory in the side panel “Memory Stick” slot or USB connector.

The upper USB connector is number 1, and the lower connector is number 2.



2 Open the file to be exported.

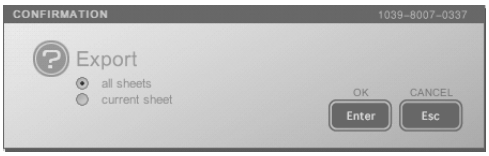
For the method of opening a file see “Opening an existing file” (page 125).

3 In the file operation section, click the [Export TIFF...] button, or [Export TGA...] button.

The following confirmation message appears.

4 Select where to save the file, and click [Enter].

The following confirmation message appears.



5 If the opened file includes multiple sheets, select either [all sheets] or [current sheet].

[all sheets]: Exports all sheets within the file.
[current sheets]: Exports the currently displayed sheet only.

Note

If there is only one sheet in the file, this message does not appear.

6 Click the [Enter].

The following message appears.

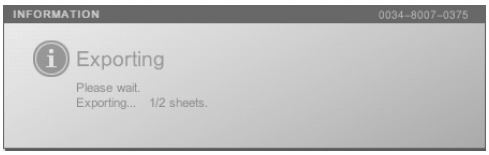
7 Select an aspect ratio, and click [Enter].

The [Save] screen appears.

8 Enter the file name in [File Name].

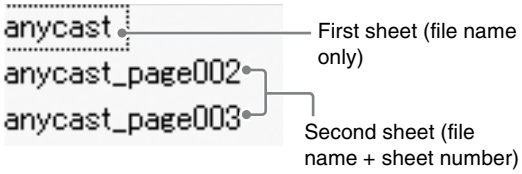
9 Click the [Enter].

The following message appears, and the file is exported to the “Memory Stick” or USB flash memory.



Notes

- When a file consisting of multiple sheets is exported, the second and subsequent sheets are named as follows with the file name + sheet number.



- An exported TIFF/TARGA file is saved with an alpha channel.

Working on Text Objects

This section describes how to create a text object, and then apply modifiers to the text.

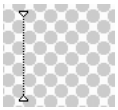
Creating a text object

1 Click the text tool.

The icon turns green, and the system is now in text input mode (in which text input is possible).

2 Click where you want to enter text.

The cursor appears.



3 Enter text from the keyboard.

As you enter text, it appears in a pink and black dotted frame.

Notes

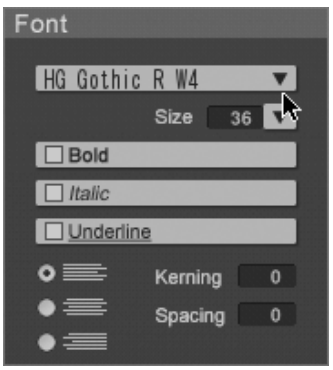
- For details of confirming the text, see “Standard operations for text input” (page 122).
- If input with a font only supporting numerals, spaces are input.

Changing the text font

1 Click the selection tool, to select the text object (page 123).

An orange frame appears around the text object.

2 Click the ▼ button by the font name in the font operation section.



The pull-down list appears.

3 Select a font.

This changes the selected font.

Editing the text

1 Click the selection tool, to select the text object (page 123).

An orange border appears around the text object.

2 Double-click the selected text object.

The frame changes to a pink and black dotted line, and the cursor appears, switching to text input mode.

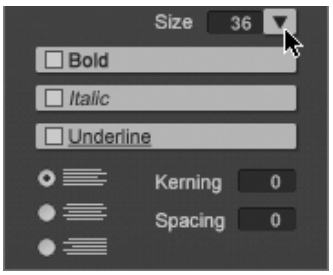
3 Edit the text.

Changing the font size

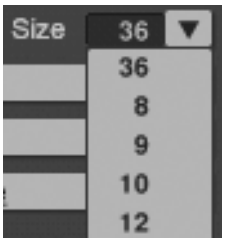
1 Click the selection tool, to select the text object (page 123).

An orange border appears around the text object.

2 Click the [Size] ▼ button in the font operation section.



3 Select the size.



This changes the selected size.

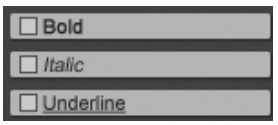
Note

You can also change the size by directly entering a numeric value in the [Size] box.
Click the box, enter the numeric value from the keyboard, then press the Enter key.

Changing the font style

1 Click the selection tool, to select the text object (page 123).
An orange border appears around the text object.

2 Select a style in the font operation section.



This changes the selected style.

Bold

Italic

Underline

Changing the spacing between characters

1 Click the selection tool, to select the text object (page 123).
An orange border appears around the text object.

2 Click the [Kerning] input box in the font operation section, and enter the numeric value from the keyboard.

3 Press the Enter key.

This changes to the selected spacing.

Note

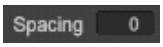
The numeric value zero is the basepoint for the spacing. By entering a negative value, you can make the spacing narrower.

Changing the spacing between lines

1 Click the selection tool, to select the text object (page 123).

An orange border appears around the text object.

2 Click the [Spacing] input box in the font operation section, and enter the numeric value from the keyboard.



3 Press the Enter key.

This changes to the selected spacing.

Note

The numeric value zero is the basepoint for the spacing. By entering a negative value, you can make the spacing narrower.

Aligning text

You can align a text object with multiple lines to the left, to the right, or in the center.

1 Click the selection tool, and select the text object with multiple lines (page 123).

An orange border appears around the text object.

Note

The following figure shows left alignment as an example.

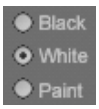
2 Click the center align button in the font operation section.

This center-aligns the text.

Changing the text color

1 Click the selection tool, to select the text object (page 123).
An orange border appears around the text object.

2 Click one of the text color selection buttons in the Color tab of the [Text] tab.



The text appears as follows.

Black

White

Paint

For details on adjusting the color when [Paint] is selected, see "Creating a color in the color creation section" (page 144).

Making changes to the character outlines

1 Click the selection tool, to select the text object (page 123).
An orange border appears around the text object.

2 Select the Edge tab of the [Text] tab.

3 Make the following settings for the outline desired.

To change the style of the outline

Select the [Edge-Round] edge selection button for an outline with round corners and select the [Edge-Sharp] edge selection button for an outline with sharp corners.

To change the color of the outline

For black or white, select the [Black] or [White] edge color selection button. To change the color to a desired color, create the color in the color creation section.

For details, see "Creating a color in the color creation section" (page 144).

To remove the character outlines

Select the [None] edge style selection button.
The outlines disappear.

To change the thickness of the outlines

Click the [Width] ▼ button, and select the thickness.

Working on Line Objects

This section describes how to create a line object, and then change the line style or color.

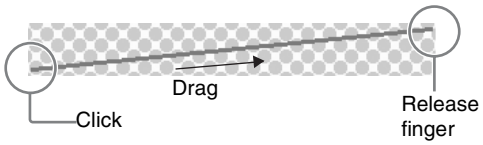
Creating a straight line

1 Click the line tool.

The icon turns green, and you can now draw a line.

2 Draw a line.

Click at the start position, and drag to draw the line.



Notes

- If you drag with the Shift key held down, you can draw horizontal or vertical lines.
- Right-click to cancel the orange color selection frame.

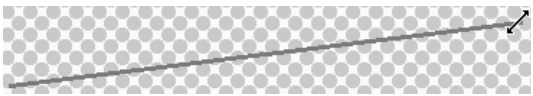
Changing the length and direction of a straight line

Directly after creating a line object

You can change the length and direction of a line object while the line tool remains selected after the line object is created.

1 Point at either end of the line using the mouse.

The mouse pointer changes to .



2 Click and drag.

An orange border appears around the line object, and you can change the length or direction of the line.

Already created line object

Use the selection tool to change the length and direction of a line object that has already been created.

1 Click the selection tool and select the line object (page 123).

An orange border appears around the line object.

2 Place the mouse pointer over either end of the line.

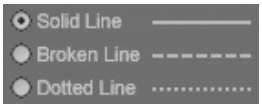
The mouse pointer changes to .

3 Click and drag.

Changing the line style

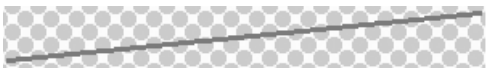
1 Click the selection tool, to select the line object (page 123).
An orange border appears around the line object.

2 Click one of the line style selection buttons on the Color tab of the [Line] tab.



The line appears as follows.

Solid Line



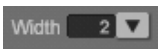
Broken Line

Dotted Line

Changing the line thickness

1 Click the selection tool, to select the line object (page 123).
An orange border appears around the line object.

2 Click the [Width] ▼ button on the Color tab of the [Line] tab.



The pull-down list appears.

3 Select the thickness.
This changes the line to the selected thickness.

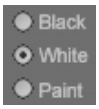
Note

You can also change the size by directly entering a numeric value in the [Width] box.
Click the box, enter the numeric value from the keyboard, then press the Enter key.

Changing the line color

1 Click the selection tool, to select the line object (page 123).
An orange border appears around the line object.

2 Click one of the line color selection buttons on the Color tab of the [Line] tab.



For details of color adjustment when the [Paint] is selected, see "Creating a color in the color creation section" (page 144).

Adding outlines to line objects

1 Click the selection tool and select the line object (page 123).
An orange border appears around the line object.

2 Click the [Edge-Round] or [Edge-Sharp] edge style selection button on the Edge tab of the [Line] tab.

Select the [Edge-Round] edge selection button for an outline with round corners and select the [Edge-Sharp] edge selection button for an outline with sharp corners.

3 Set the color and width of the outline as necessary.

To change the color of an outline

For black or white, select the [Black] or [White] edge color selection button. To change the color to a desired color, create the color in the color creation section.

For details, see "Creating a color in the color creation section" (page 144).

To change the width of an outline

Click the [Width] ▼ button and select a width.

Shadow Operations

This section describes how to create shadows, and set the direction and distance, and adjust the degree of blurring.

Note

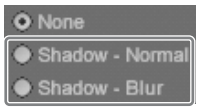
This section describes the example of a text object.

Applying a shadow

1 Click the selection tool, and select the object (page 123).
An orange border appears around the object.

2 Select the [Shadow] tab on the [Text] tab.

3 Select the [Shadow-Normal] or [Shadow-Blur] shadow type selection button.



The following display appears.

Shadow - Normal

Shadow - Blur

Changing the shadow angle

1 Click the selection tool, and select the object with the shadow (page 123).
An orange border appears around the object.

2 Drag the direction indicator to the desired direction.

The shadow direction changes as follows.

Notes

- You can move the direction indicator needle in increments of 45º by dragging it while holding down the Shift key.
- You can also enter a numeric value in [Degree], to change the direction.

Changing the shadow distance

1 Click the selection tool, and select the object with the shadow (page 123).
An orange border appears around the object.

2 Enter a numeric value in [Distance].

The shadow distance changes as follows.

Changing the degree of blurring of a shadow

1 Click the selection tool, and select an object with shadow (Shadow - Blur) applied (page 123).

An orange border appears around the object.

2 Enter a numeric value in [Softness].

The degree of blurring of the shadow changes as follows.

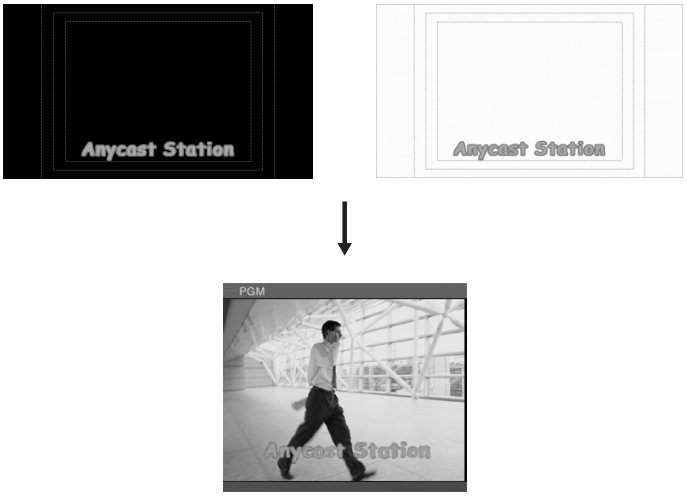
Background Color Operations (Creating Telop and Flip)

Telop

Flip

Creating a telop for keying (transparent for keying)

When the created title is used as a key source in the Anycast Station main software, the background is transparent (alpha value 100%), so that the background does not appear.

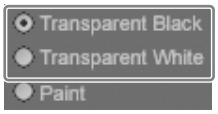


Note

In the Anycast Station main software viewer, the background appears as whichever of black and white it is set to, but when used as a key source, the background is transparent.

1 Select the [BG] tab.

2 Select the [Transparent Black] or [Transparent White] color selection button.

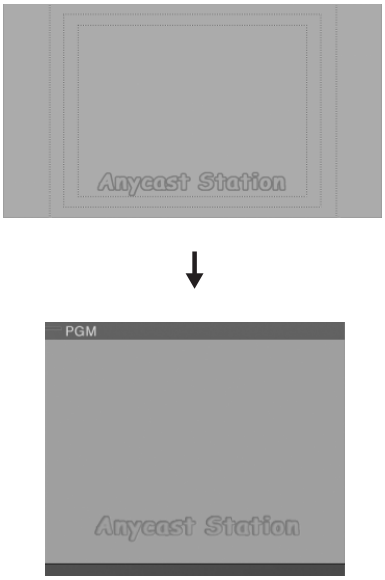


Note

To create a flip with a solid white or black background, select [Paint], and set black or white. For more details, see “Creating a flip (for keying with a background color)” (page 143).

Creating a flip (for keying with a background color)

If you set any color for the background, when used as a key source in the Anycast Station main software, the background color appears unchanged.



1 Select the [BG] tab.

2 Select the [Paint] color selection button.

3 Create a color in the color creation section.

For details of color creation, see "Creating a color in the color creation section" (page 144).

The background changes to the selected color.

Notes

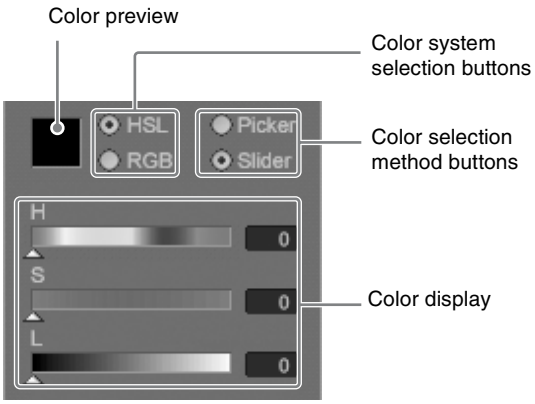
- If transparency is set, select [Live] and check the effect of the transparency.
- The screen and main software viewer are displayed without transparency when [BG] button of the view operation section is selected even if transparency is set. However, background transparency is set for actual keying.
- You can set a different background color for each sheet.

Color Operations

This section describes how to create a color.

Creating a color in the color creation section

In the color creation section of each tab of the modifier operation section, you can create any desired color.



Use the following procedure to create a color.

1 Select [HSL] or [RGB] as the color system.

In each of these systems, you specify three parameters to create the color.

[HSL]
H: Hue
S: Saturation
L: Luminance

[RGB]
R: Red
G: Green
B: Blue

2 Select [Picker] or [Slider] depending on which color selection method you want to use.

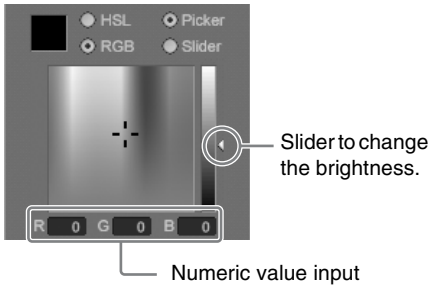
Use the following procedure to specify the color.

When [Picker] is selected

Move the mouse pointer to the desired point in the color field and click, or specify the color by numeric value input.

When [HSL] is selected

When [RGB] is selected



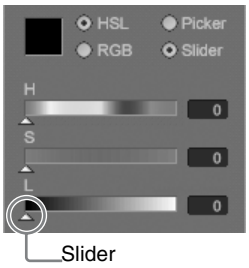
Note

If you move the slider (on the right of the color field) toward the top or bottom, then whatever color you select, only white or black will appear. Setting a value of about 200 makes it easiest to distinguish the colors.

When [Slider] is selected

Move the sliders, or specify the color by numeric value input.

When [HSL] is selected



When [RGB] is selected

Note

When [HSL] and [Slider] are selected, setting the [L] and [S] numeric value to about 200, and then moving the [H] slider makes it easier to distinguish the colors.

Changing the color using the eyedropper tool

You can pick the color used by another object and then set that color as the color of the object.

1 Click the eyedropper tool.

The mouse pointer changes to an eyedropper.

2 Left-click the color you want to pick.

The color of the eyedropper width window changes to the color you picked.

Note

You can pick the color with the eyedropper from any part of the screen: background, text, character outline, line object, or captured image.

3 Right-click the place you want to change.

The color changes to the color you picked.

Note

After you select a color with the eyedropper tool, you can change the color of the color selection area to the color selected with the eyedropper tool if you place the mouse pointer within the color preview square in the color creation section and then right-click.

Changing the transparency

You can set a transparency value for the color of an object.

Note

This section describes the example of a text object color.

1 Click the selection tool, and select the object (page 123).

An orange border appears around the object.

2 Select the Color tab of the [Text] tab.

Notes

- To set color transparency for the shadow of an object, select the Shadow tab of the [Text] tab.
- To set color transparency for a line object, select the Color tab or Shadow tab of the [Line] tab.
- To set color transparency for the background, select the [BG] tab.

3 Move the [Transparency] slider, or enter a numeric value for the transparency.

The color of the text becomes transparent as follows.

Applying a color gradation

You can apply a gradation to the color of an object.

Note

This section describes the example of a text object color.

1 Click the selection tool, and select the object (page 123).
An orange border appears around the object.

2 Select the Color tab of the [Text] tab.

Note

To set gradation for a line object, select the Color tab of the [Line] tab.

3 Select the [Gradation-Pattern] check box.

This applies the color gradation as follows.

Changing the gradation pattern

1 Click the selection tool, and select the object with the gradation (page 123).
An orange border appears around the object.

2 Select the Color tab of the [Text] tab.

3 Click the [Gradation-Pattern] ▼ button.

The following patterns appear.

4 Select a pattern.

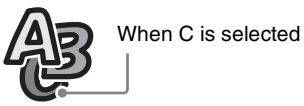
This changes the pattern.

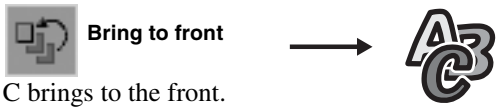
Object Layout

This section describes how to change the object front-to-back positioning, and adjust the layout.

Changing the object front-to-back positioning

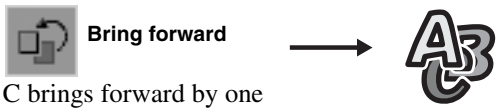
The tools used to carry out front-to-back positioning and their functions are as follows.





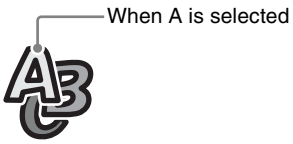
Bring to front

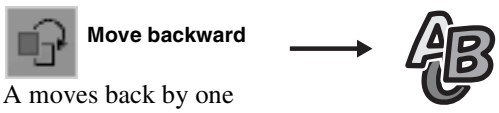
C brings to the front.



Bring forward

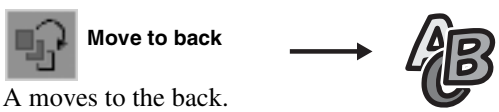
C brings forward by one level.





Move backward

A moves back by one level.



Move to back

A moves to the back.

Example:
To move the object from the back to the front

1 Click the selection tool, and select the object to be moved.

An orange frame appears around the object, and it appears at the front.

2 Click the Move to front tool.

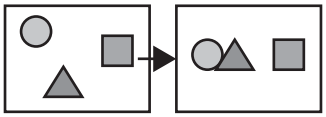
This moves the selected object to the front.

Positioning objects

You can center the selected object vertically or horizontally within the frame. The tools used to carry out centering and their functions are as follows.

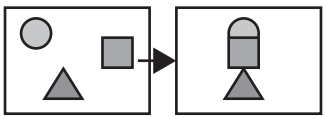
Vertical centering

This centers vertically within the frame.



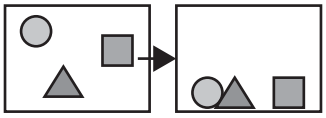
Horizontal centering

This centers horizontally within the frame.



Lower/third positioning

This positions the object so that its lowest part is aligned to a predetermined position.



Setting the lower third position

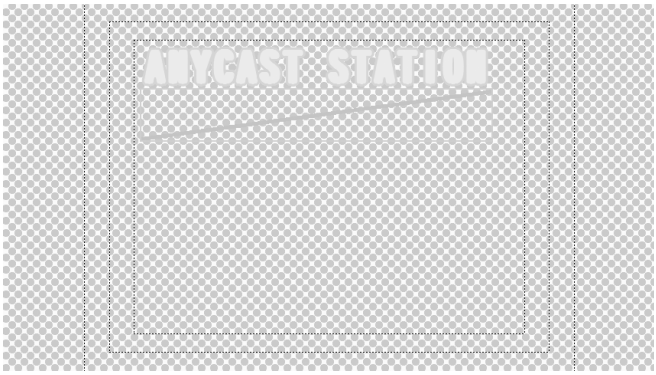
Selecting an object and then clicking the lower third memory tool sets the lowest part of the selected object as the lower third position. To restore the lower third position to its default setting, click the lower third reset tool.

Note

With the default setting, the object is moved so that its lowest part is aligned to a position at the bottom of the safe zone inside the sheet.

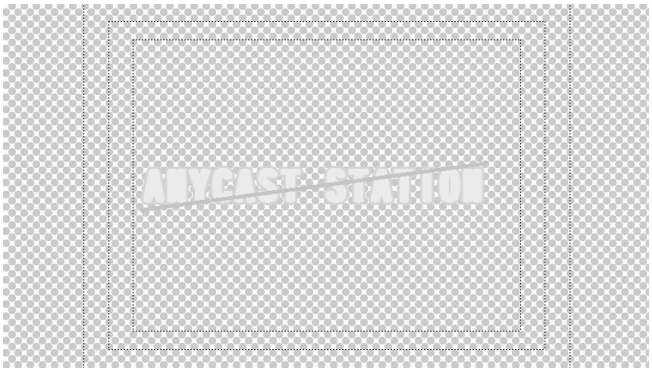
Example: Centering an object vertically

1 Click the selection tool, to select the object you want to position.



2 Click the vertical centering tool.

This centers the selected object vertically.

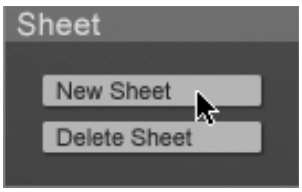


Adding and Deleting Sheets

In the Text Typing Tool software you can handle multiple sheets in a single file.

Adding a new sheet

1 Click the [New Sheet] button in the sheet operation section.



The following confirmation message appears.

2 Select [Duplicate current sheet] or [Create a blank sheet].

[Duplicate current sheet]: Creates a new sheet as a copy of the currently open sheet object.

[Create a blank sheet]: Creates a new, blank sheet.

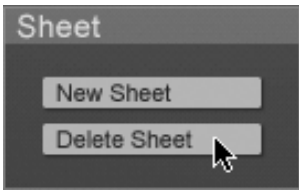
3 Click the [Enter].

The new sheet is inserted as the next page after the open sheet.

Deleting a sheet

1 With the page operation section (page 42), display the sheet you want to delete.

2 Click the [Delete Sheet] button in the sheet operation section.



This deletes the displayed sheets.

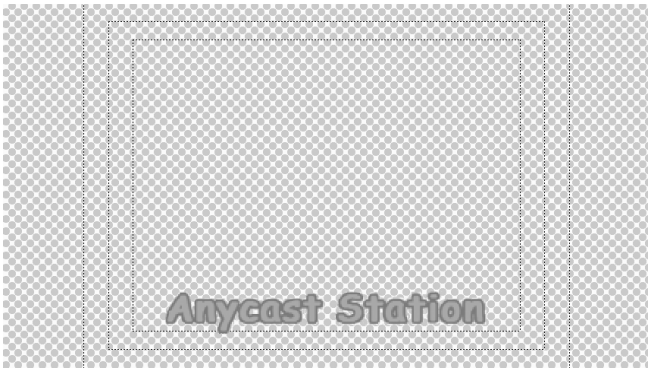
Simulating the Keying Effects

By displaying an image captured from the program output video, or the checkered pattern as the background, you can check the keying effect of a created object.

Displaying a captured program output video image as the background

1 Open the file you want to simulate a keying effect.

For the method of opening the file, see "Opening an existing file" (page 125).



2 Select [Live] of the view operation section.

When you select [Live], the image captured from program output video when you switched from the main software appears in the background.

3 Click the [Capture] button in the view operation section.

Each time you click, this captures the current image.

Setting background display

You can set the background display as follows by selecting a background display selection button in the view operation section.

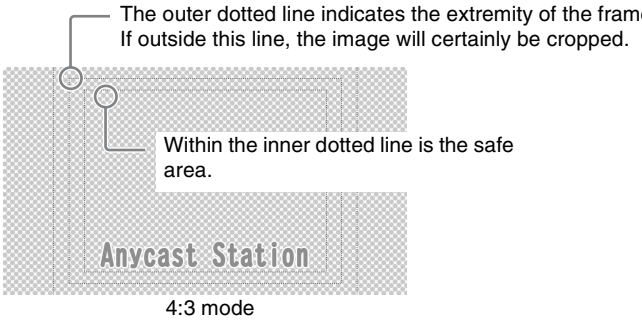
Background setting	Display effect
Checker	Checkered pattern + object **When the color selection button in the [BG] tab is [Paint]:** checkered pattern + background of user-created background color (transparency and gradation settings: can be checked) + object
Live	Program output capture image + object **If the [BG] tab color selection button is [Paint]:** Program output capture image + background of user-created background color (transparency and gradation settings: can be checked) + object
BG	Background color set on the [BG] tab (transparency setting: cannot be checked) + object

For details on the [BG] tab settings and background display settings, see "Background Color Operations (Creating Telop and Flip)" (page 141).

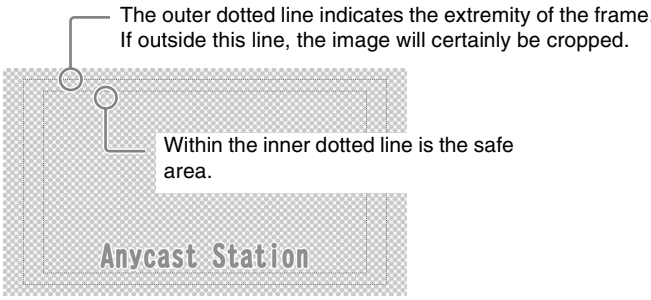
Displaying the safe area

The “safe area” refers to the area of the frame within which an object can be inserted as a key in the program output video without risk of being outside the viewing limits on a connected output device.

When a button in the view operation section is selected, the safe area appears. Select “Off” to hide the safe area.



4:3 mode



16:9 mode

Key Combination in the Anycast Station Main Software

Start the Anycast Station main software, and use the file created in the Text Typing Tool software for a keying.

1 Click the [Exit] button at the lower left of the screen.
This starts the Anycast Station main software.

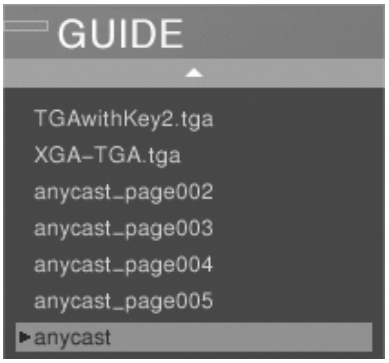
Note

You can also use the keyboard F5 (Fn+5) key to switch to the Anycast Station main software.

For details, see “To close the Text Typing Tool software and start the Anycast Station main software” (page 121).

2 Press the “INT” NEXT selection button.
The INT material selection menu appears.

3 Select the file or sheet, and confirm.



Notes

- If the file consists of multiple sheets, the first sheet is identified as the file name, and the second and subsequent sheets are identified as the file name + sheet number.
- Files created in the Text Typing Tool software have no extension.

The selected sheet appears as the “INT” source viewer and PVW viewer.

You can combine as a downstream key (DSK) or luminance key.

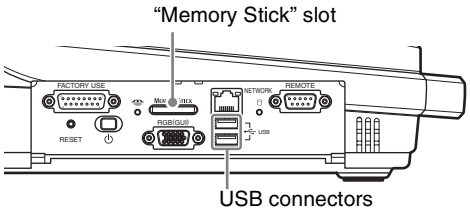
For details, see “Using the Downstream Key (DSK) Function To Add Text or an Image” (page 90) and “Using Luminance Keying” (page 99).

Importing a Font File

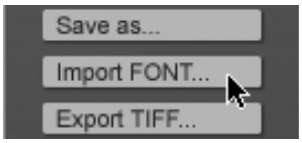
You can import a font file that has been saved on a “Memory Stick” or USB flash memory.
The font file must have been saved in the dedicated folder for fonts: MSSONY/PRO/LPS/ANYCAST/FONT.

1 Insert the “Memory Stick” or USB flash memory in the side panel “Memory Stick” slot or USB connector.

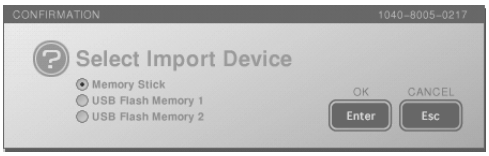
The upper USB connector is number 1, and the lower connector is number 2.



2 In the file operation section, click the [Import FONT...] button.



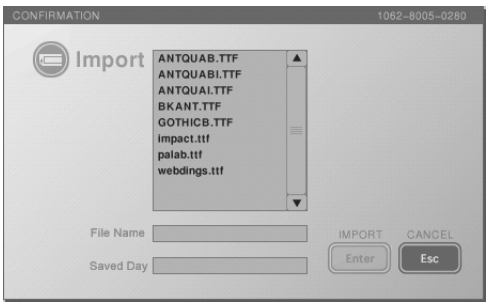
The following confirmation message appears.



3 Select the inserted media, and click [Enter].

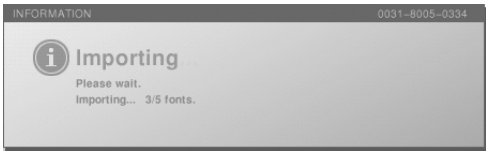
The font list appears.

4 Select the font file to import from the font list.

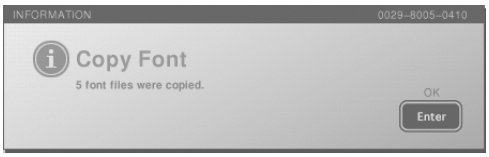


5 Click [Enter].

While importing, the following message appears.



When the import is completed, a completion message appears, and the font is added to the font name list.



6 Click the [Enter].

Caution

- This imports all font files within the FONT directory of the “Memory Stick” or USB flash memory. If the same font file exists in this unit, it is overwritten.
- The only font files that can be imported are TrueType fonts, with a file extension “.ttf” or “.ttc.”
- Even if an imported font is one the user has purchased, for commercial use, such as providing telop on a broadcast, the permission of the provider of the font for commercial use of the font may be necessary.
  Note that the nine fonts provided with the Text Typing Tool may be used for commercial purposes without further formality. These fonts are true type fonts developed and sold by Ricoh Company, Ltd.

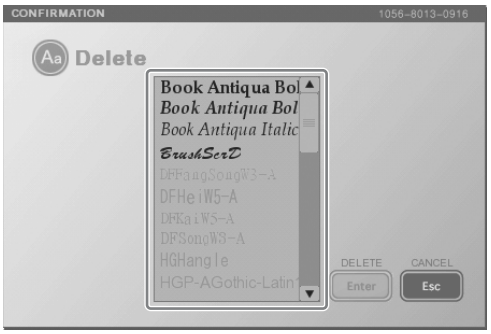
Deleting a Font File

You can delete a font file that was imported into the unit.

1 Click the [Delete FONT] button in the file operation section.

The font list appears.

2 Select the font file to delete from the font list.

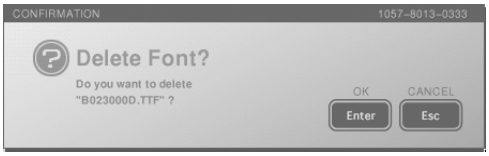


Notes

- You can select multiple font files by clicking (or pressing the ↓ and ↑ keys) to select file names while holding down the Shift key or by dragging to select file names.
- If you attempt to delete a font file while a file is open, the font files of fonts used by the file currently open cannot be selected.
- Fonts included in the same .ttc file are selected at the same time.

3 Click [Enter].

A confirmation message appears.



4 Click [Enter].

The specified font file is deleted.

Caution

Deleting a font clears the information for Undo and Redo operations.

Controlling Cameras

This unit is equipped with a VISCA controller. VISCA (VIdeo System Control Architecture) is a technology used for connecting a video device to a controller, and controlling the video device from the controller. In this unit, you can remotely control a camera supporting VISCA protocol connected to the VISCA connector.
The remote control operations available include the following.

- Pan
- Tilt
- Zoom
- Focus
- Aperture (iris) control
- White balance adjustment
- Backlight

Notes

- The controllable range depends on the camera you are using.
- For information about VISCA cameras that can be connected to the unit, visit the following Anycast Station portal site:
  https://servicesplus.us.sony.biz/SoftwarePlusSerch.aspx (for customers in U.S.A.)
  https://www.sonybiz.net/anycast (for customers in Europe, Middle East and Africa)
  https://www.ecspert.sony.biz/ecsite/ (for the other customers)

Controlling Camera Manually

Control a camera manually supporting the VISCA protocol from this unit.
With the default settings of this unit, focus and iris settings are set to auto, and white balance setting is set to “no operation.” To control these manually, you need to set them in the menu.

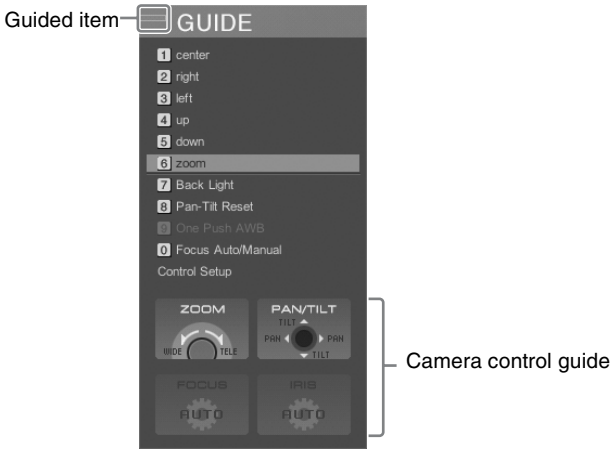
Carrying out manual control

1 Press the NEXT selection button to which the camera video is assigned.
The camera guide menu appears in the menu display.

Note

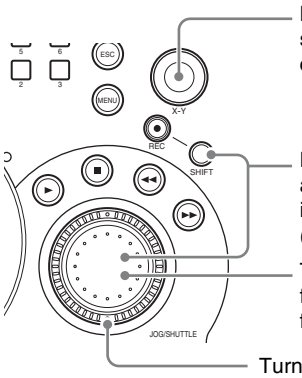
If the camera guide menu does not appear, follow the procedure in “Registering Cameras To Be Controlled” (page 69).

A guide to operations appears in the camera control guide.



If the focusing and iris control are set to auto, then "AUTO" appears. To change the settings manually, see "Setting the Camera Control" (page 163).

2 Following the guide, control the camera, using the front panel buttons and dials.



Move the positioner for pan (moving the camera shooting direction horizontally) and tilt (moving the camera shooting direction vertically) control.

Hold down the SHIFT button and turn the jog dial to adjust the iris (aperture). Turning clockwise opens the iris, and turning counterclockwise stops down the iris (when setting manually).

Turn the jog dial to adjust the focus. Turning clockwise focuses further away, and turning counterclockwise focuses closer (when setting manually).

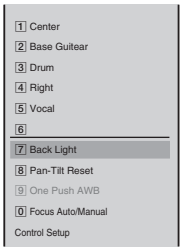
Turn the shuttle dial to control the zoom. Turning clockwise zooms in (telephoto), and turning counterclockwise zooms out (wide angle).

Using the backlight function

You can use the backlight function when [Iris (Exposure)] is set to [Auto] (page 164). When there is a source of light behind the shooting subject and the subject appears dark, you can brighten the subject's appearance by enabling the backlight function.

1 Press the NEXT selection button to which the camera video is assigned.
The camera guide menu appears in the menu display.

2 Select [7 Back Light], and confirm.
The setting turns on or off each time it is selected.

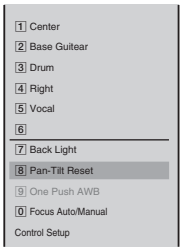


Resetting pan and tilt positions

When [Pan-Tilt] (page 164) is set to [Enable], you can reset pan and tilt to their default positions.
Use this function when the camera head is moved during operation, when the camera's STANDBY indicator flashes for reasons including fingers or objects getting caught in the camera, or when pan and tilt operations stop functioning.

1 Press the NEXT selection button to which the camera video is assigned.
A camera guide menu appears in the menu display.

2 Select [8 Pan-Tilt Reset], and confirm.

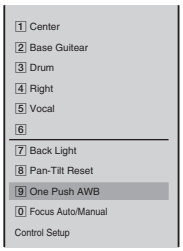


Adjusting the white balance automatically

When [White Balance] (page 164) is set to [One Push], you can specify when to perform automatic white balance adjustment by pressing the numeric buttons.

1 Press the NEXT selection button to which the camera video is assigned.
A camera guide menu appears in the menu display.

2 Select [9 One Push AWB], and confirm.



Storing a Camera Preset

The camera preset function allows you to save the state of the camera supporting VISCA protocol to one of the numeric buttons on the front panel. Then by pressing the numeric button, you can automatically set the camera to the saved state.

For example, during a lecture relay, you can store settings for standard shots, such as a speaker close-up, speaker full-body shot, guest panel, or audience view, simplifying the work of switching among these views.
In the camera preset, you can save the pan, tilt, zoom, and focus settings, the aperture (iris) status, the white balance adjustment, the control mode (auto/manual, etc.).

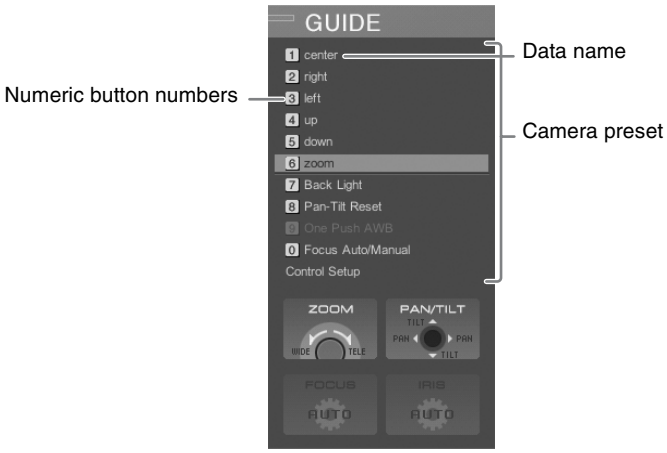
Caution

If the camera you are using is an EVI-D100/EVI-D100P, set the camera BACK UP switch to the ON position before storing.

Storing a camera preset

1 Press the NEXT selection button to which the camera video is assigned.

The camera guide menu appears in the menu display.
Camera presets appear at the top of the camera guide menu.



2 Control the camera to determine the shot.

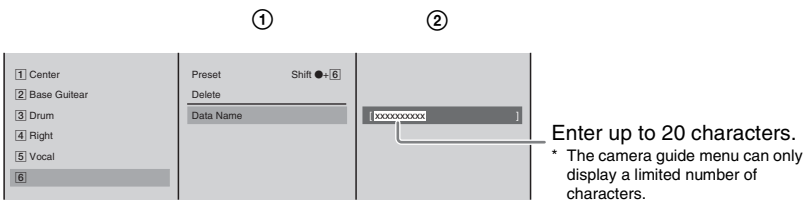
3 With the jog roller, select the camera preset number (from [1] to [6]), and confirm.

The camera preset settings menu appears.

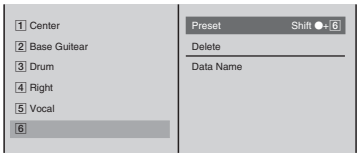
4 Set the following items as required.

Applying a name to the preset

① Select [Data Name], and confirm; ② enter the name in the input box, and confirm.



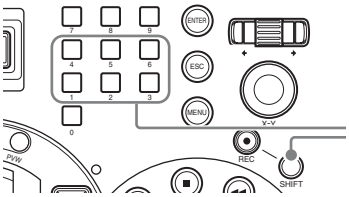
5 Select [Preset], and confirm.



This saves the preset in the numeric button.
The saved preset appears in the camera guide menu.

Note

Even if the camera guide menu is not displayed, you can register a camera preset by holding down the SHIFT button and pressing any numeric button (between 1 and 6).



Hold down the SHIFT button, and press one of numeric buttons 1 to 6.

Recalling a preset

1 Press the NEXT selection button to which the camera video is assigned.

The camera guide menu appears in the menu display.

2 Using the numeric buttons on the front panel, press the number in which the preset is saved.

The numeric button lights amber, and the camera is set to the preset state.

The selected number appears in amber.

Deleting a saved preset

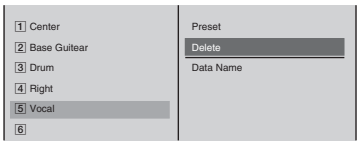
1 Press the NEXT selection button to which the camera video is assigned.

A camera guide menu appears in the menu display.

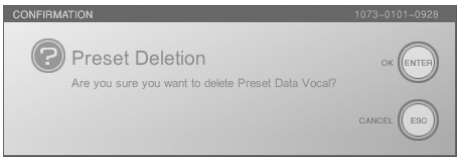
2 Select the number of the preset you want to delete with the jog roller, and confirm.

The camera preset settings menu appears.

3 Select [Delete], and confirm.



The following confirmation message appears, as follows.



Note

By pressing the ENTER button while holding down the SHIFT button, you can delete all of the presets simultaneously.

4 Press the ENTER button.

The preset is deleted, and the number display turns gray.

Setting the Camera Control

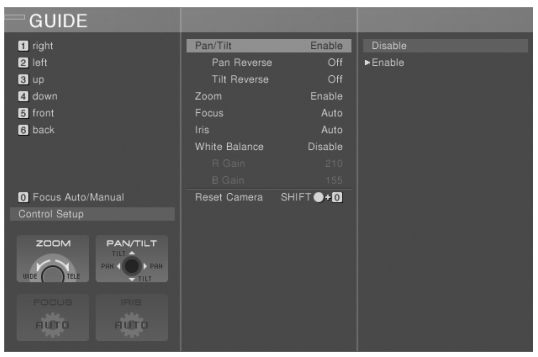
To change the default settings of this unit, or to enable pan, tilt and zoom for a ceiling-mounted camera, use the following procedure.

1 Press the NEXT selection button to which the camera video is assigned.

A camera guide menu appears in the menu display.

2 With the jog roller, select [Control Setup], and confirm.

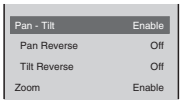
The submenu appears.



3 Set the following items in the submenu.

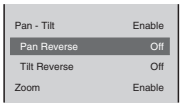
Disabling remote control of pan and tilt, or zoom

Select [Pan-Tilt] or [Zoom] to set it to [Disable], and confirm.
The setting switches between [Enable] and [Disable] each time it is selected.



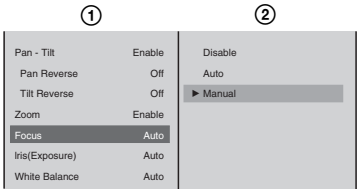
Reversing directions for ceiling-mounted cameras

When a camera is ceiling-mounted, you can reverse the pan and tilt directions.
Select [Pan Reverse] or [Tilt Reverse] to set it [On], and confirm.
The setting turns on or off each time it is selected.



Enabling manual focus and iris control

① Select [Focus] or [Iris (Exposure)], and confirm; ② select [Manual], and confirm.

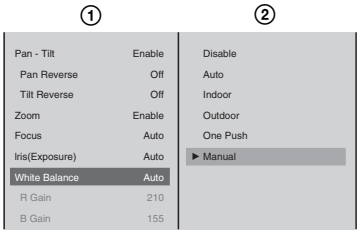


Note

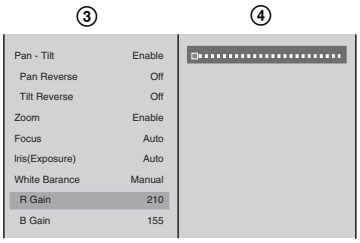
You can switch the auto focus and manual focus by pressing “0” of the numeric keys.

Manually controlling white balance

① Select [White Balance], and confirm; ② set [Manual], and confirm.



③ Select [R Gain] or [B Gain], and confirm; ④ move the slider to adjust the values.

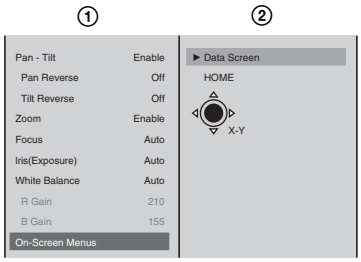


Notes

- When not using control from this unit, select [Disable].
- Select [Indoor] to adjust to a white balance for indoor use, and select [Outdoor] to adjust to a white balance for outdoor use.
- Select [One Push] to adjust white balance automatically. For details see "Adjusting the white balance automatically" (page 160).

Performing onscreen the operations of the supplied camera remote control (RM-EV100)

This function may not be available depending on the camera type.
① Select [On-Screen Menus], and confirm; ② select the item you want to operate with the positioner, and configure.



The functions of the setting items are as follows.

[Data Screen]: Displays/hides the Data Screen (the menu that appears on video images from the VISCA camera) and advances the menu level (the same function as the Data Screen button on the RM-EV100).

[HOME]: Lowers the menu level (the same function as the HOME button on the RM-EV100).

Caution

Be aware that when configuring setting items that can be changed on the unit from [On-Screen Menus] or the remote control, the setting values on the unit will no longer match those on the camera.

Notes

- Pressing up and down on the positioner moves the cursor up and down, while pressing left and right changes the settings (the same functions as the pan-tilt buttons on the RM-EV100).
- You cannot pan and tilt the camera with the positioner while the [Data Screen] is displayed.

4 Press the ESC button to close the submenu.

Resetting the Camera

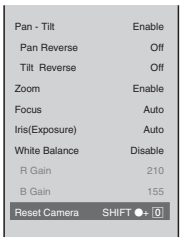
After starting up this unit, carry out this procedure after powering the camera supporting the VISCA protocol off and on again, or disconnecting and reconnecting the VISCA cable.
Perform this operation even if "No Response" appears as the camera status.

1 Press the NEXT selection button to which the camera video is assigned.

A camera guide menu appears in the menu display.

2 With the jog roller, select [Control Setup], and confirm.

3 In the submenu, select [Reset Camera], and confirm.



Note

You can also reset the camera by holding down the SHIFT button and pressing the numeric 0 button.

Linking the VISCA Camera's Power to the Unit's Power

By linking the power, you can have the VISCA camera's power turn off when the unit is turned off.

Note

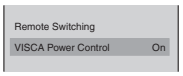
When the unit is turned on, all of the VISCA cameras connected to the VISCA connector will also turn on.

1 Press the MENU button.

2 In the top menu, select [Video Utility].

3 Select [VISCA Power Control] to set it [On], and confirm.

The setting turns on or off each time it is selected.



4 Press the MENU button to close the menu.

Using the FACTORY USE Connector

Connecting the FACTORY USE connector on the unit to the tally connector on a CCU (camera control unit) or other device allows you to use the tally lamps on the camera and switch between PGM and NEXT selection buttons from an external device when one is connected.

Using Camera Tallies

When the camera supports the camera tally function (BRC series, etc.)

The camera tally lamp lights when the input from the camera is being used as program output.

Caution

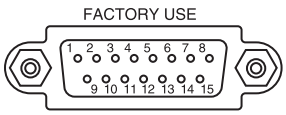
- Multiple settings are possible for the [Video Input Assign] of the [Control] setting. In this case, the camera tally lights when the video from any of the source viewers for which the [Control] setting is made is being used for program output.
- Tally outputs do not transmit properly when the unit is starting up.

When using CCU, etc.

If the FACTORY USE connector of the unit is connected to the tally connector of a CCU (camera control unit), the tally lamp lights for any camera that is assigned to a PGM selection button or NEXT selection button on the front panel, as long as video from that camera is being used as program output (the button lights red).

Specifications of the FACTORY USE connector

The specification of each pin is as shown below.



Pin Number	I/O	Signal Name	Description
1	I	GPI0	GPI IN1: Switches to the PGM or NEXT selection button assigned to source number 1. 5V TTL
2	I	GPI1	GPI IN2: Switches to the PGM or NEXT selection button assigned to source number 2. 5V TTL
3	I	GPI2	GPI IN3: Switches to the PGM or NEXT selection button assigned to source number 3. 5V TTL
4	I	GPI3	GPI IN4: Switches to the PGM or NEXT selection button assigned to source number 4. 5V TTL

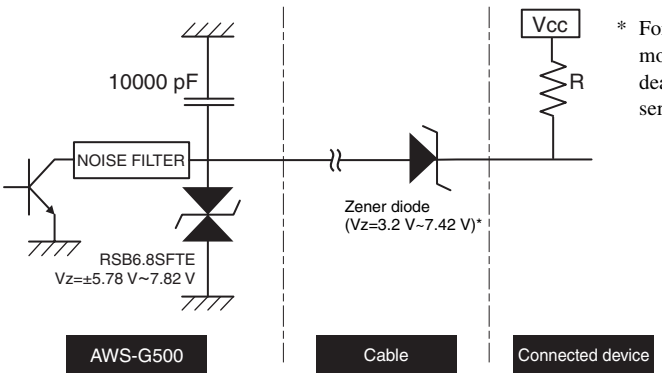
Pin Number	I/O	Signal Name	Description
5	I	GPI4	GPI IN5: Switches to the PGM or NEXT selection button assigned to source number 5. 5V TTL
6	I	GPI5	GPI IN6: Switches to the PGM or NEXT selection button assigned to source number 6. 5V TTL
7	-	GND	GROUND
8	-	GND	GROUND
9	O	GPO0	GIP OUT1: Controls the tally of the camera assigned to source number 1. On: GND; Off: Open
10	O	GPO1	GIP OUT2: Controls the tally of the camera assigned to source number 2. On: GND; Off: Open
11	O	GPO2	GIP OUT3: Controls the tally of the camera assigned to source number 3. On: GND; Off: Open
12	O	GPO3	GIP OUT4: Controls the tally of the camera assigned to source number 4. On: GND; Off: Open
13	O	GPO4	GIP OUT5: Controls the tally of the camera assigned to source number 5. On: GND; Off: Open
14	-	GND	GROUND
15	-	GND	GROUND

Caution

Because the GPO of the FACTORY USE connector on the unit has a built-in protection circuit, it may not operate properly depending on the input circuit configuration of the device to be connected.

Refer to the following diagram to prepare the cables.

Sample circuit diagram (CCU-D50/CCU-M7/CCU-M5/HFU-X310)



* For details on other device models, consult your dealer or your Sony service representative.

* When using an HFU-X310, couple directly without using a diode.

Caution

When using the CCU, the camera tally control is possible for the camera assigned to source number 1 to 5. When the camera is assigned to source number 6, the camera tally cannot be lit.

Notes

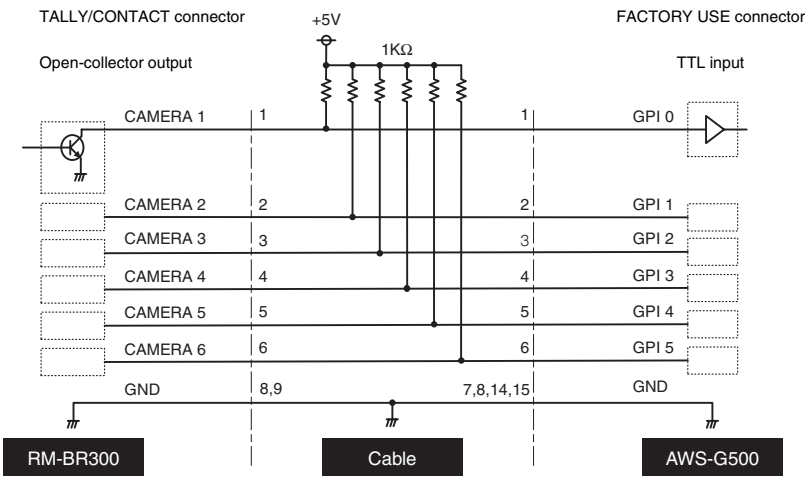
- When the video from a camera with the tally lit is being used for program output, then if you press the FTB button, the tally goes off.
- If you open a file on the hard disk in the source viewer assigned to the video from a camera with the tally lit, the tally goes off.

Operating the PGM and NEXT Selection Buttons From an External Device

When you connect an external device to the FACTORY USE connector on the unit, you can perform switching for the PGM and NEXT selection buttons from the external device.

Refer to the following diagram to prepare the cables.

Sample circuit diagram (RM-BR300)



* For details on other device models, consult your dealer or your Sony service representative.

Caution

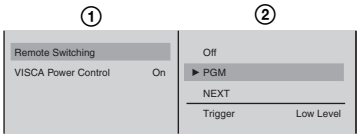
- Pull-up of all signal lines is necessary.
- On the unit, set [Trigger] under [Remote Switching] of [Video Utility] to [Low Level].
- On the RM-BR300, set the TALLY/CONTACT switch to CONTACT.

1 Connect the external device to the FACTORY USE connector.

2 Press the MENU button.

3 In the top menu, select [Video Utility].

4 ① Select [Remote Switching], and confirm; ② select the buttons to be controlled by the external device, and confirm.



The functions of the setting items are as follows.

[Off]: Disables switching from the external device.

[PGM]: Enables switching operations for PGM selection buttons 1 to 6 from the external device.

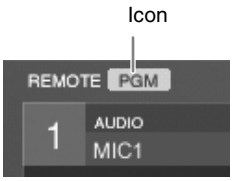
[NEXT]: Enables switching operations for NEXT selection buttons 1 to 6 from the external device.
Use this to perform VISCA camera control.
When the KEY button is lit, you can make key source selections.

Caution

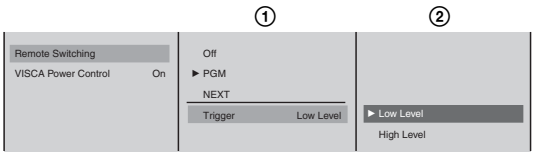
Connect the external device before configuring this setting.

Note

When [Remote Switching] is enabled, the following icon appears.
Example: When [PGM] is selected.



5 ① Select [Trigger], and confirm; ② select an input level, and confirm.



The functions of the setting items are as follows.

[Low Level]: Triggers remote switching when input levels become low.

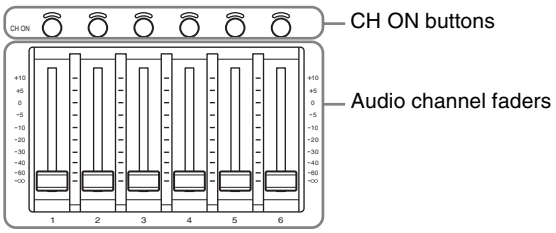
[High Level]: Triggers remote switching when input levels become high.

6 Press the MENU button to close the menu.

Audio Mixing

This section describes how to perform mixing on the audio signals input to the unit, and output the final audio (output program) from the PGM output connectors.
First assign the audio signals to channel faders, as described in "Audio Signal Related Settings" (page 71).

1 Press the CH ON button on the front panel to select the channels that you want to mix.



2 Adjust the levels with the audio channel faders, and carry out mixing.

For audio input/output signal fine adjustment settings, see "Video/Audio Signal Adjustments and Settings" (page 212).

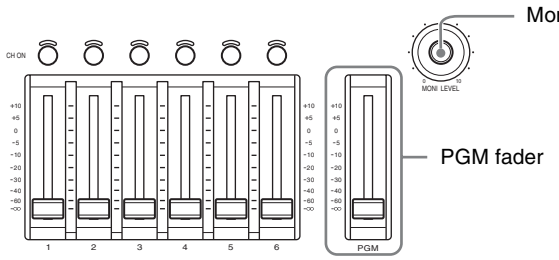
Adjusting the PGM output audio level

Use the PGM fader on the front panel to adjust the level of audio from the PGM output connectors.

Adjusting the monitored audio levels

Adjust the levels of the built-in speakers, headphones, and devices connected to the monitor output connectors with the monitor level adjustment knob on the front panel.

For the selection of audio to be monitored, see "Monitoring Output Audio" (page 210).



Recording Video and Audio to an External Hard Disk

Using the i.LINK connector (HDD) on an SD video interface module (BKAW-570) or serial digital interface module (BKAW-580), you can record to an external hard disk the program outputs from the unit and all the input sources to the unit.

i.LINK connector (HDD): connect an external hard disk to record each input material (video + audio) (page 178) and record program output (video + audio) (page 177). Perform recording operations on this unit.
You can also simultaneously record program output and each input material (ON LINE recording) (page 177).

Caution

When recording on the external hard disk, be sure to read the section, "External Hard Disk" (page 12).

Formatting an External Hard Disk

Format an external hard disk in order to use it with this unit.
This unit uses the ext3 file system format.

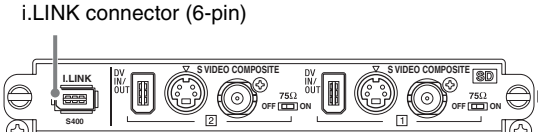
Note

We recommend that you reformat the external hard disk at regular intervals in order to avoid a drop in performance due to file fragmentation.

1 Connect the external hard disk to the i.LINK connector (6-pin) of the interface module.

Caution

Be sure to connect the external hard disk before powering on this unit.



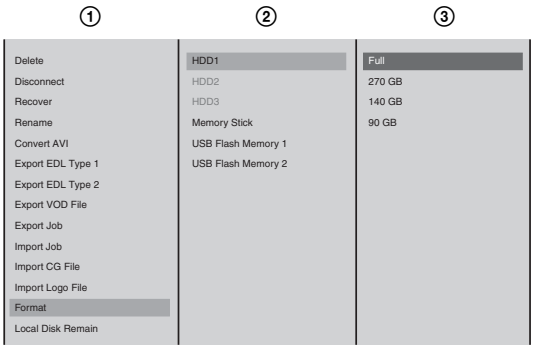
2 Power on the external hard disk.

3 Press the ⏻ (power) button on the side panel to start up this unit.
The operation screen appears.

4 Press the MENU button.

5 In the top menu, select [File Manager].

6 ① Select [Format] and confirm; ② select the hard disk number and confirm; ③ select the size, and confirm.



The functions of the items are as follows.

[Full]: Formats the entire disk.

[270 GB]: Formats so that 270 GB of space is available (approximately 20 hours of recording is possible).

[140 GB]: Formats so that 140 GB of space is available (approximately 10 hours of recording is possible).

[90 GB]: Formats so that 90 GB of space is available (approximately 7 hours of recording is possible).

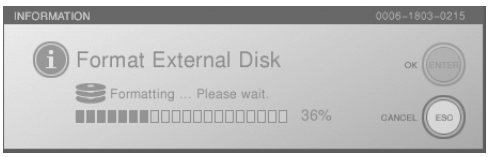
Note

Depending on the computer, the maximum size of hard disks capable of being connected is predetermined. When using multiple hard disks, format them using the appropriate method for your computer.
Example: When connecting three hard disks to a Windows computer, format so that 90 GB of space is available.

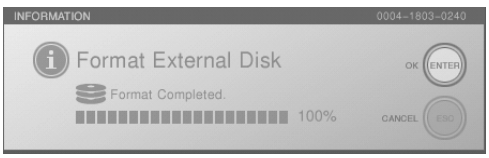
The following message appears.

7 Press the ENTER button.

Formatting starts.



When formatting is completed, the following message appears.



8 Press the ENTER button, to close the message.

9 Press the MENU button, to close the menu.

Preparing for Recording to an External Hard Disk

When you want to record program output or material to an external hard disk, follow the procedure below to connect the external hard disk and configure the settings for recording.

Caution

Always format an external hard disk from the unit before starting to record.

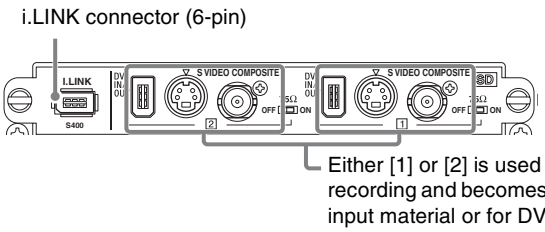
For details of formatting an external hard disk, see "Formatting an External Hard Disk" (page 172).

Connecting an external hard disk

1 Connect the external hard disk to the 6-pin i.LINK connector (HDD) of the interface module.

When recording program output

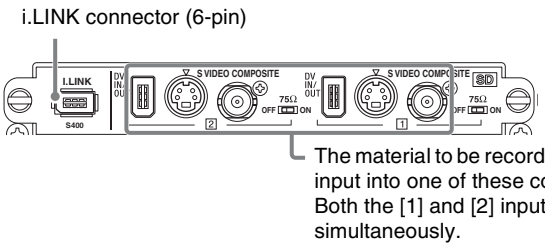
Although the external hard disk can be connected to any interface module, one of the two inputs of the interface module it is connected to will no longer be available for recording input material or for DV input. Therefore, we recommend connecting the external hard disk to an interface module inputting analog material that is not going to be recorded.



* You can also record by connecting to the 6-pin i.LINK connector of the serial digital interface module.

When recording material

Connect the disk to the same interface module as the input you want to record.



* You can also record by connecting to the 6-pin i.LINK connector of the serial digital interface module.

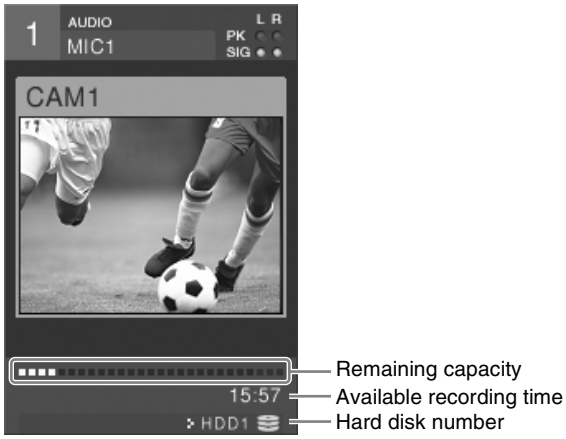
2 Power on the hard disk.

Caution

Always connect the hard disk and power it on before starting up this unit.

3 Press the ⏻ (power) button on the side panel to start up this unit.

The operation screen appears, and the source viewer shows the hard disk number, remaining capacity, and available recording time.



Caution

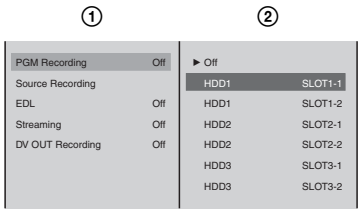
When recording two sources simultaneously, the indicated remaining capacity diminishes at twice the normal rate, and therefore the actual remaining recording time is approximately half of that shown.

Selecting the connector to use for program output recording

1 Press the MENU button.

2 Select [ON LINE Manager] in the top menu.

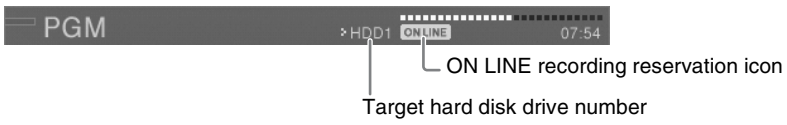
3 ① Select [PGM Recording], and confirm; ② select both the external hard disk to record program output and the input to use for recording, and confirm.



Note

When the PGM output aspect ratio is set to 16:9 HD, [PGM Recording] does not appear.

The target hard disk number and ON LINE recording reservation icon appear in the hard disk status display of the PGM viewer.



The source viewer of the input (SLOT x-x) specified for program output recording changes to the device status for program output recording.

Caution

The connector selected here will be used for recording program output and will no longer be available for recording input signals or for DV input.

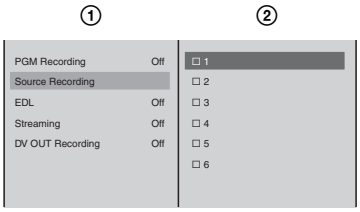
4 Press the MENU button to close the menu.

Selecting the material to record

1 Press the MENU button.

2 Select [ON LINE Manager] in the top menu.

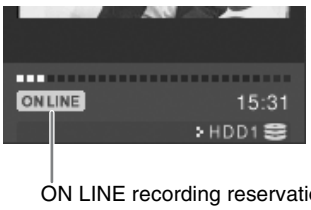
① Select [Source Recording], and confirm; ② select the source number of the input video to record, and confirm.



Note

You can select multiple materials to record.

The ON LINE recording reservation icon appears in the device status display of the source viewer of the selected number.



3 Press the MENU button to close the menu.

Material selection shortcut

In addition to selecting material to record via the top menu as described above, you can use the following shortcut.

Press a NEXT selection button while holding down the REC button to select the material assigned to that button for ON LINE recording.

To cancel the selection, press the NEXT selection button again while holding down the REC button.

Simultaneously Recording Input Material and Program Output to an External Hard Disk (ON LINE Recording)

You can use the ON LINE button to simultaneously record each input material and program output to the external hard disk drive.
For details on operations for ON LINE recording, see “Activating Each Function Simultaneously With the ON LINE Button” (page 266).

Caution

- When the PGM output aspect ratio is set to 16:9 HD, you cannot record program output.
- Before starting ON LINE recording, preset the system timecode. If you do not preset the system timecode, there may be a slight difference in the timecode of each source material. For details on operations, see “Setting the System Timecode” (page 54).

Notes

- See “Recorded settings and file details” (page 179) for details on files for recorded input material and “Recording files” (page 177) for details on files for recorded program output.
- If streaming, EDL creation, and DV OUT recording have been reserved, they are also started simultaneously when the ON LINE button is pressed.
- You can manually record additional input material (page 178), even while ON LINE recording is in progress, and vice versa.

Manually Recording Program Output on an External Hard Disk

You can manually record program output (video + audio) on an external hard disk connected to the i.LINK connector (HDD) of the interface module.
Use this function if ON LINE recording did not start for some reason or if you want to start recording program output again afterwards.

Caution

- For program output recording, the external hard disk can be connected to any interface module, but one of the two inputs of the interface module it is connected to will be used for recording program output and will no longer be able to be used for recording input signals.
- When the PGM output aspect ratio is set to 16:9 HD, you cannot record program output.

Recording files

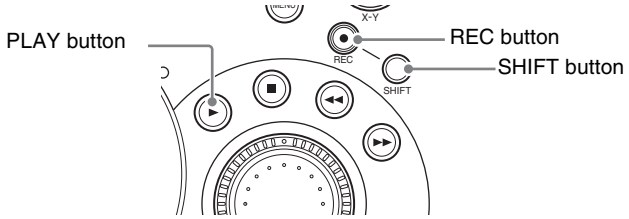
File name	YYMMDD-P-(3-digit suffix number).avi
File format	DV format (.avi)

Signal format (NTSC/PAL)	Same as the setting of [PGM OUT] of [Video Output] in the top menu.
Timecode	System timecode (page 54)

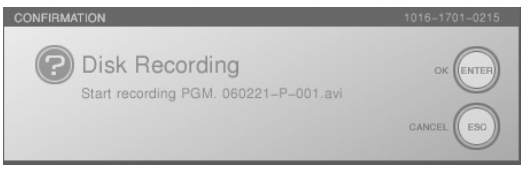
Starting program output recording

1 Configure the settings in “Preparing for Recording to an External Hard Disk” (page 174).

2 Press the PLAY button while holding down the SHIFT and REC buttons.



“REC PAUSE” appears in the hard disk status display of the PGM viewer and the following confirmation message appears.



3 Press the ENTER button or PLAY button.

The hard disk status indication changes to “REC,” and recording starts.

Stopping of program output recording

Press the STOP button while holding down the SHIFT and REC buttons to stop recording.

Manually Recording Each Input Material on an External Hard Disk

On an external hard disk connected to the i.LINK connector (HDD) of the interface module, you can manually record video inputted to the same interface model in combination with audio that has the same source number as the video. Use this function if ON LINE recording did not start for some reason or if you want to start recording material again afterwards.
Furthermore, you can simultaneously record two inputs of the interface module to one external hard disk.

For details of formatting an external hard disk, see “Formatting an External Hard Disk” (page 172).

Caution

It is not possible to record the material with an external recorder connected to the i.LINK connector (HDD).

Recorded settings and file details

Recorded settings

Video	ACCESS menu settings (Adjustment is not possible for DV video)
Audio	ACCESS menu [Input Trim] setting (analog audio only)
	Top menu [Audio MIC/LINE Level] setting

File details

File name	YYMMDD-(source number)–(3-digit suffix) (.avi)	
File format	DV format (.avi)	
Signal format (NTSC/PAL)	Same as the setting of [PGM OUT] of [Video Output] in the top menu.	
Timecode	DV material	The timecode included with DV material is recorded.
	Non DV material	System timecode (page 54)

Starting recording of material

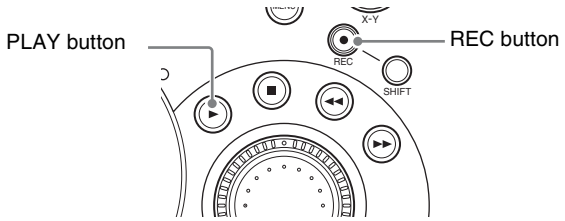
1 Configure the settings in “Preparing for Recording to an External Hard Disk” (page 174).

2 Select the source to be recorded in the NEXT selection buttons.

Caution

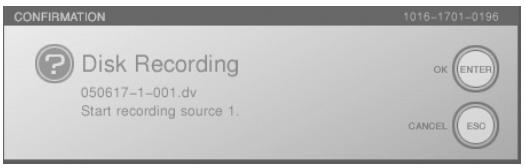
The inputs that can be recorded are only those to the interface module to which the external hard disk is connected (inputs for which the source viewer shows the hard disk number and recording status).

3 Hold down the REC button and press the PLAY button.



The source viewer device status shows “REC PAUSE.”

The following confirmation message also appears at the same time.



4 Press the ENTER button or PLAY button.

The device status indication changes to “REC,” and recording starts.

Note

You can repeat steps 1 to 3 for a different source, for simultaneous recording of multiple inputs.

Material recorded

Audio:

- The audio is recorded together with the video assigned to the same source number. It is not possible to record audio only.
- It is not possible to record DV video and analog audio together.
  If you start recording of DV video and analog audio, a confirmation message appears and DV audio is recorded combined with DV video.

Stopping recording of material

1 Select the source to be stopped recording in the NEXT selection buttons.

2 Hold down the REC button and press the STOP button.

In the device status of the source viewer, the “REC” indication disappears, and recording stops.

Operations on Files on the External Hard Disk

You can carry out operations on files stored on an external hard disk connected to the interface module.

Note

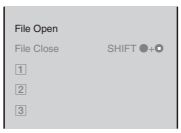
Operations can also carried out on .dv files recorded with an older version.

For the method of connection, see "Connecting an external hard disk" (page 174).

Playing Files

1 Press the NEXT selection button for the source viewer showing the hard disk number.

The HDD file guide menu appears in the menu display.



Note

When a DV connector of the SD video interface module with an external hard disk drive connected is set to be used for program output recording in [PGM Output] of [DV OUT] in the [Video Output] menu, the HDD file guide menu is not displayed.

2 Select [File Open], and confirm.

The file list appears.

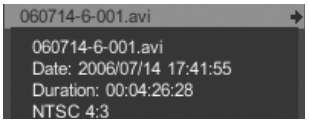
Caution

- Only files recorded on this unit appear.
- It is not possible to open a file while it is being recorded.

Note

File information display

Information on the selected file is displayed as shown below if you press and hold down the jog roller → button or the → key on the keyboard.



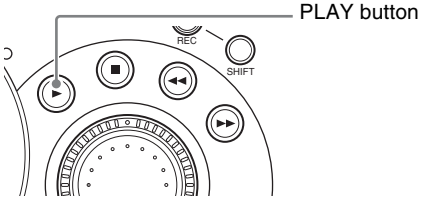
3 Select a file and confirm.

The frame of the file appears in the source viewer and PVW viewer, stationary.

Caution

There may be a delay until the file opens.

4 Press the PLAY button.



Playback starts in the source viewer and PVW viewer.

Rapid recall of the last file played

You can recall the last file played without needing to select it from the file list. In this case, press the NEXT selection button for the source viewer on which you played the file, then press the PLAY button to continue playback (without displaying a file list).

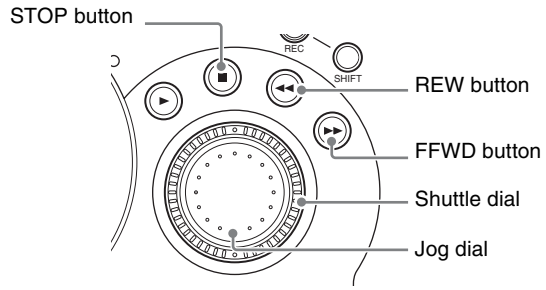
Caution

If you play back a file on the external hard disk drive while recording to the same external hard disk is in progress, gray screen and block noise may occur.

Other Playback Operations

1 Press the NEXT selection button with the same number as the source viewer for the file on which you want to operate.

2 Press any of the following buttons to carry out the operation.



STOP button

Press this during file playback to stop playback of the file.

REW button

Press this while a file is open to play back in the reverse direction.

Notes

- Each time you press, the reverse speed increases (x2, x4, x8, x16, x32, x64).
- If you press the REW button while holding down the SHIFT button, the play position skips to the beginning of the file.

FFWD button

Press this while a file is open to play back fast in the forward direction.

Notes

- Each time you press, the fast forward speed increases (x2, x4, x8, x16, x32, x64).
- If you press the FFWD button while holding down the SHIFT button, the play position skips to the end of the file.

Shuttle dial

Turning this dial clockwise plays a file in the forward direction at one of seven speeds corresponding to the amount the dial is turned (x1/8, x1/2, x1, x2, x4, x8, or x16). Turning this dial counterclockwise plays the file in the reverse direction at one of seven speeds corresponding to the amount the dial is turned (x1/8, x1/2, x1, x2, x4, x8, or x16).

Jog dial

Turning this dial while a file is open plays the file at a slow speed that corresponds to the speed at which the dial is turned.

Note

The speed by each operation appears in the device status of the source viewer and PVW viewer.

Auto Repeat Playback

You can set playback of a file to start again automatically from the beginning each time playback ends.
Specifying a playback start point and end point enables auto repeat playback of only part of the file.

1 Press the NEXT selection button of the source viewer displaying the hard disk number.

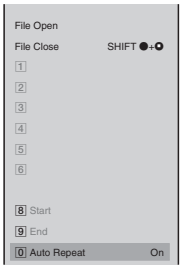
The HDD file guide menu appears in the menu display.

2 Open a file.

For details on opening files, see "Playing Files" (page 181).

3 Select [Auto Repeat].

The setting turns on or off each time it is selected.



[8 Start] and [9 End] become selectable, and an icon appears in the device status of the source viewer and PVW viewer.

Note

You can switch auto repeat on/off by pressing the [0] numeric button.

Setting the auto repeat range

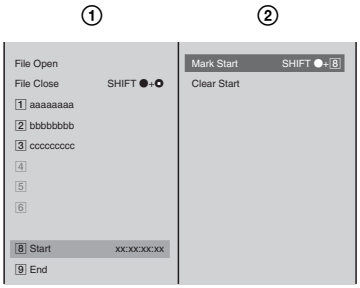
Set a playback start point and end point for auto repeat playback of part of a file.

1 Set [Auto Repeat] to On.

2 At the position you want auto repeat playback to start, press the [8] numeric button while holding down the SHIFT button.

Note

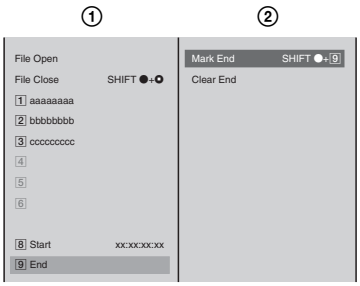
You can also specify start and end points via the HDD file guide menu.
① Select [8 Start], and confirm; ② select [Mark Start], and confirm.



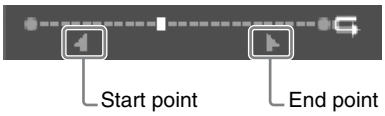
3 At the position you want auto repeat playback to end, press the [9] numeric button while holding down the SHIFT button.

Note

You can also specify start and end points via the HDD file guide menu.
① Select [9 End], and confirm; ② select [Mark End], and confirm.



When setting the auto repeat range, the timecodes for the start and end points appear in [8 Start] and [9 End] in the HDD file guide menu. Furthermore, the start point and end point are displayed in the playback position display of the source viewer and PVW viewer.



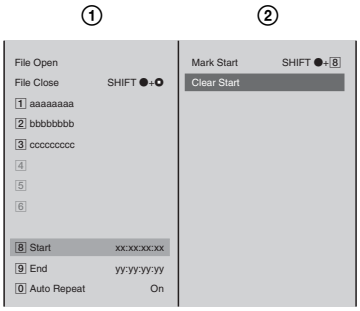
Note

When a start point and end point are set, pressing the [8] or [9] numeric button moves the playback position of the file to the start or end point. If they are not set, the playback position moves to the beginning or end of the file.

Clearing the start point and end point

1 Open the file in which the start and end points are set.

2 To clear the start point, ① select [8 Start], and confirm; ② select [Clear Start], and confirm.



3 To clear the end point, ① select [9 End], and confirm; ② select [Clear End], and confirm.

Closing a File

You can close a file in any of the following ways. Closing a file returns to the video and audio of the assigned input.

- Select [File Close] from the HDD file guide menu.
- Press the STOP button while holding down the SHIFT button.

About Deleting Files

For details on deleting files, see "Deleting Files" (page 240).

Displaying the System Timecode in Viewers

You can set the system timecode added to files to be displayed in the source viewer and PVW viewer during file playback.

For details on playing files, see "Operations on Files on the External Hard Disk" (page 181).

1 Press the MENU button.

2 Select [Display] in the top menu.

3 Select [File TC], and confirm.

The setting turns on or off each time it is selected.

4 Press the MENU button to close the menu.

Note

If [File TC] is set to [Off], a timecode starting at 00:00:00:00 is displayed at the beginning of the file.

Caution

If the version of the software used to record the file is prior to 1.40, a timecode starting at 00:00:00:00 is always displayed at the beginning of the file even if [File TC] is set to [On].

Registering Cue-Up Points

If you register any position of the file to one of the numeric buttons from 1 to 6, you can access that position by simply pressing that numeric button.

1 Open the file.

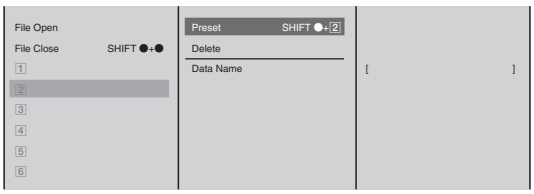
For details on opening files, see "Playing Files" (page 181).

2 Play to the position to be cued up.

3 In the HDD file guide menu, ① select the number to register the cue-up point to, and confirm; ② select [Preset], and confirm.

Example: When registering to numeric button [2].

① ②

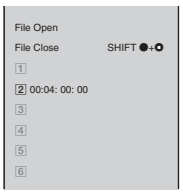


The cue-up point is registered to the corresponding numeric button on the front panel.

Note

You can also register the point by pressing numeric button [2] while holding down the SHIFT button.

The cue-up point is registered and the timecode of the position to be cued up is displayed.



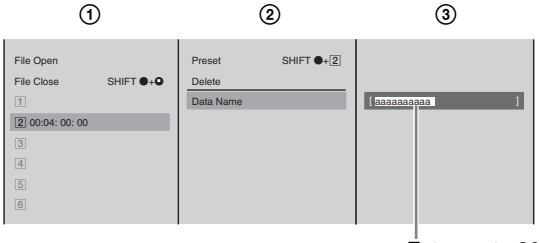
Note

To change the position to be cued up, repeat steps 2 and 3 above.

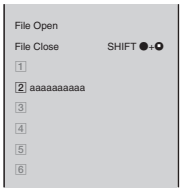
Naming cue-up points

1 Open the file in which the cue-up point is registered.

2 In the HDD file guide menu, ① select the cue-up point, and confirm; ② select [Data Name], and confirm; ③ enter the name of the cue-up point in the input box, and confirm.



The display for the number selected in step 2 changes from the timecode to the cue-up point name.



Accessing Cue-Up Points

1 Open the file containing the registered cue-up point.

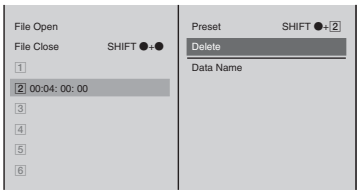
2 Press the numeric button to which the cue-up point is registered.

The video of the cue-up point appears and the screen stops.
The numeric button you pressed lights.

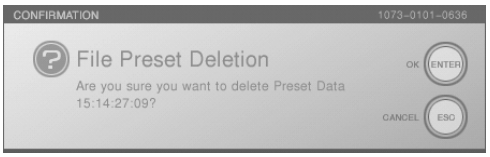
Deleting Cue-Up Points

1 Select the cue-up point you want to delete in the HDD file guide menu.

2 Select [Delete], and confirm.



The following confirmation message appears.



Note

By pressing the ENTER button while holding down the SHIFT button, you can delete all of the cue-up points simultaneously.

3 Press the ENTER button.

The cue-up point is deleted.

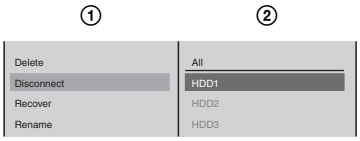
Disconnecting the External Hard Disk

When disconnecting the external hard disk, use the following procedure to disconnect safely.

1 Press the MENU button.

2 In the top menu, select [File Manager].

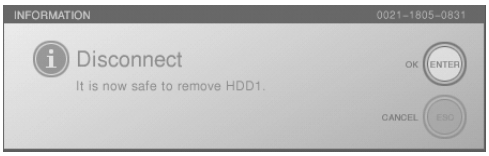
3 ① Select [Disconnect], and confirm; ② select the hard disk to disconnect, and confirm.



Note

To disconnect all of the hard disks together, select [All].

The following message appears.



4 Press the ENTER button, to close the message.

5 Power off the hard disk, and disconnect.

Recovering an External Hard Disk

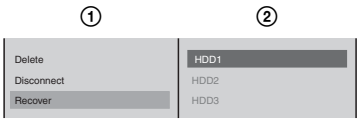
If as the result of one of the following operations the external hard disk has become inaccessible from another computer or from this unit, then carry out disk recovery.

- If the hard disk is disconnected without carrying out the proper procedure for disconnection on this unit
- If the hard disk is disconnected from a computer without the proper procedure for disconnection

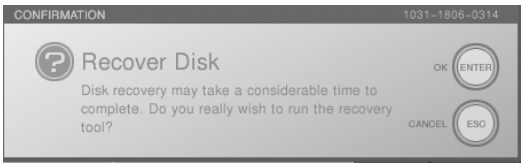
1 Press the MENU button.

2 In the top menu, select [File Manager].

3 ① Select [Recover], and confirm; ② select a hard disk to recover, and confirm.

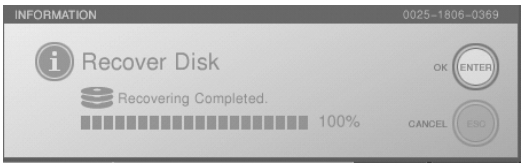


The following confirmation message appears.



4 Press the ENTER button.

Recovery starts.
When recovery is completed, the following message appears.



5 Press the ENTER button to close the message.

6 Press the MENU button, to close the menu.

Caution

If the hard disk was disconnected without carrying out the proper procedure, follow the messages that appear to carry out recovery. It may be possible to access files on the hard disk without carrying out the recovery procedure, but the content of such files is not guaranteed.

Recording Video and Audio to a VCR

Using the DV connectors on an SD video interface module (BKAW-570), the SDI output connector on a serial digital interface module (BKAW-580), the HD analog output connector on an HD video interface module (BKAW-560), or the HD SDI output connector on an HD serial digital interface module (BKAW-590), you can record to a VCR the program outputs from the unit.

Notes

- The types of devices and recording data supported differ among the DV, SDI output, HD analog output, and HD SDI output connectors.
- For details on adding the system timecode, see "Setting the System Timecode" (page 54).

DV connector (DV IN/OUT DV PGM): connect a VCR to record program output (video + audio). Perform recording operations on the VCR or unit.

SDI output connector (SDI OUT): connect an SDI input compatible VCR to record program output (video + audio). Perform recording operations on the VCR.

HD analog output connector (YPBPR OUT): connect to an HD analog input compatible VCR to record program output (video). The supported signal formats are 720p and 1080i. Perform recording operations on the VCR.

HD SDI output connector (HD SDI OUT): connect to an HD SDI input compatible VCR to record program output (video + audio). The supported signal formats are 720p and 1080i. Perform recording operations on the VCR.

Caution

If a signal subjected to special processing is input to the synchronization signal, normal recording may not be possible.

Recording Program Output to a VCR

When using the DV connector

By connecting a VCR to the DV connector (DV IN/OUT) of the SD video interface module (BKAW-570) on the rear panel, you can record the program output video in DV format.

Procedure for recording on a VCR

To begin recording to a VCR, select the DV connector to be used for recording. You can also simultaneously record input material and program output to a VCR using the ON LINE button.

For details, see "Operating the Unit to Record Program Outputs to a VCR" (page 195).

Caution

- If a DV connector is set to be used for recording, you cannot record onto the hard disk the material input from the composite video input connector and S-video input connector of the same module.

- When the PGM output aspect ratio is set to 16:9 HD, output from a DV connector is not available.

1 Connect the VCR to the DV connector.

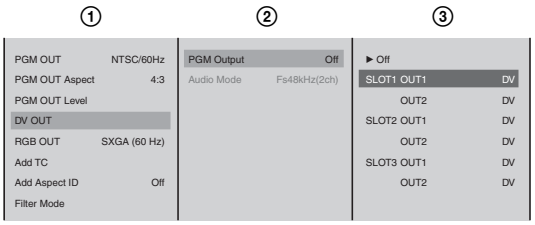
Note

Depending on the model of VCR, signal input/output settings may be required. Refer to the Operating Instructions for the device to be connected.

2 Press the MENU button.

3 In the top menu, select [Video Output].

4 ① Select [DV OUT], and confirm; ② select [PGM Output], and confirm; ③ select the DV connector to which the VCR is connected from the list, and confirm.

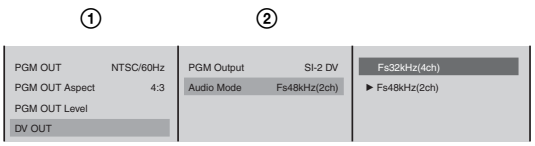


This sets the selected DV connector for program output, and program video is output.

Notes

- At this point, the selected DV connector is grayed out and unavailable in the [Video Input Assign] menu and [Audio Input Assign] menu.
- When an external hard disk is connected to an i.LINK connector of the same interface module as the selected DV connector, the hard disk status of the source viewer assigning images from each of the input connectors on that module disappears.

5 ① Select [Audio Mode], and confirm; ② select the audio sampling rate for the program output, and confirm.



The functions of the setting items are as follows.

Fs32kHz(4ch): 12 bit, 32 kHz sampling, 4-channel output (select this item if you want to later record to channels 3 and 4 on a device with an audio dubbing function).

The audio output is as follows.

1 ch: L
2 ch: R
3 ch: L (the same 1 ch)
4 ch: R (the same 2 ch)

Fs48kHz(2ch): 16 bit, 48 kHz sampling, 2-channel output

6 Press the MENU button, to close the menu.

7 Operate the VCR to start recording.

Notes

- To add a timecode, be aware that you may need to configure settings on the device to be connected.
- When connecting to DV devices, if the video or audio output is lost, or there is noise, disconnecting and reconnecting the cable, or powering the DV device or this unit off and on again may solve the problem.

When using the SDI connector

By connecting a VCR that supports SDI input to the SDI output connector (SDI OUT) of the serial digital interface module, you can record program output.

Procedure for recording on a VCR

Program video and audio are always output as SDI signals from the SDI output connector.
Connect the VCR to the SDI output connector, and operate the VCR to start recording.

Caution

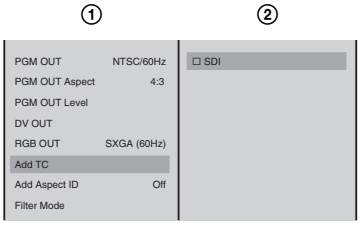
When the PGM output aspect ratio is set to 16:9 HD, program output from the SDI output connector is not available (a black image and silent audio signal is output).

Adding the system timecode to SDI signals (when using a serial digital interface module)

1 Press the MENU button.

2 In the top menu, select [Video Output].

3 ① Select [Add TC], and confirm; ② select [SDI] to set it [On], and confirm.
The setting turns on or off each time it is selected.



[On]: Adds the system timecode to SDI signals.
[Off]: Does not add the system timecode to SDI signals.

4 Press the MENU button to close the menu.

When using the HD analog output connector

When an HD video interface module is installed on the unit, you can record program output by connecting a VCR that supports HD analog input to the HD analog output connector (YPBPR OUT).

Procedure for recording on a VCR

Program video is always output as HD analog signals from the HD analog output connector.
Connect the VCR to the HD analog output connector, and operate the VCR to start recording.

Note

Recording is possible when the PGM output aspect ratio setting is 16:9 HD.
When recording is possible, the HD indicator to the left of the HD analog output connector is lit.

When using the HD SDI output connector

When an HD serial digital interface module is installed on the unit, you can record program output by connecting a VCR that supports HD SDI input to the HD SDI output connector (HD SDI OUT).

Procedure for recording on a VCR

Program video and audio are always output as HD SDI signals from the HD SDI output connector.
Connect the VCR to the HD SDI output connector, and operate the VCR to start recording.

Note

Recording is possible when the PGM output aspect ratio setting is 16:9 HD.
When recording is possible, the HD indicator to the left of the HD SDI output connector is lit.

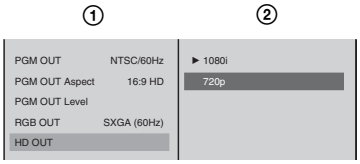
Setting the HD output signal format (when using an HD video interface module or HD serial digital interface module)

Select the format for the signal output from the HD analog output connector when the PGM output aspect ratio is set to 16:9 HD.

1 Press the MENU button.

2 In the top menu, select [Video Output].

3 ① Select [HD OUT], and confirm; ② select a signal format, and confirm.



[1080i]: Outputs 1080 interlace signals.
[720p]: Outputs 720 progressive signals.

For more on the NTSC (60 Hz) and PAL (50 Hz) setting, see "Selecting the Video Output Signal Format" (page 52).

4 Press the MENU button to close the menu.

Operating the Unit to Record Program Outputs to a VCR

You can record program output to a VCR connected to the DV connectors on an SD video interface module (BKAW-570) through operations on the unit.

Caution

- When the PGM output aspect ratio is set to 16:9 HD, you cannot record program output.
- If the status of the VCR is anything other than “STOP,” you cannot start recording.

Notes

- If recording to a hard disk, streaming, and EDL creation have been reserved, they are also started simultaneously when the ON LINE button is pressed. For details on operations, see “Activating Each Function Simultaneously With the ON LINE Button” (page 266).
- You cannot control the following devices.
  - Cameras (with playback functions) that are set to camera mode
  - Devices with remote switching functions, but with unconfigured remote settings
  - Devices that do not support AV/C protocol

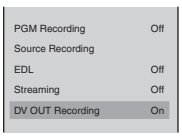
1 Configure the settings in “When using the DV connector” (page 191) of “Recording Program Output to a VCR.”

2 Press the MENU button.

3 In the top menu, select [ON LINE Manager].

4 Select [DV OUT Recording] to set it [On], and confirm.

The setting turns on or off each time it is selected.



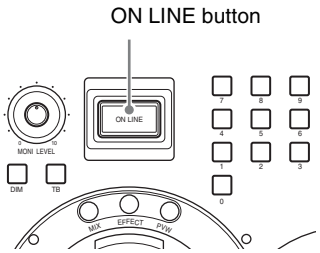
5 Press the MENU button to close the menu.

Note

When [DV OUT Recording] is set to [On], the ON LINE icon for VCRs appears in the PGM viewer.

ON LINE icon

6 Press the ON LINE button.



The ON LINE icon for VCRs disappears from the PGM viewer, “REC” appears in the VCR status display, and recording begins.

Controlling VCR Playback From the Unit

Playback operations for VCRs connected to the DV connectors on an SD video interface module (BKAW-570) can be performed from the unit. You can also register specific positions on a videotape to the numeric buttons, 1 to 6, and access them whenever necessary.

Note

You cannot control the following devices.
- Cameras (with playback functions) that are set to camera mode
- Devices with remote switching functions, but with unconfigured remote settings
- Devices that do not support AV/C protocol

Registering the VCR to be Controlled

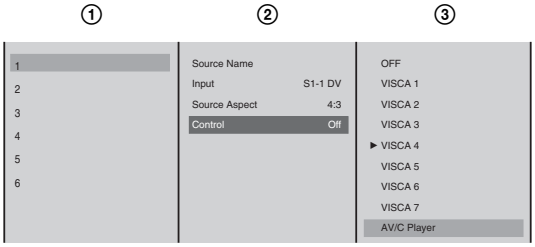
1 Connect the VCR to the DV connectors on the SD video interface module.

For details on VCR connection, see "Connecting a VCR" (page 61).

2 Assign input signals from the VCR to the selection buttons.

For details on assigning input signals, see "Assigning video input signals to the selection buttons" (page 67).

3 ① Select the number of the selection button that the VCR is assigned to, and confirm; ② select [Control], and confirm; ③ select [AV/C Player], and confirm.

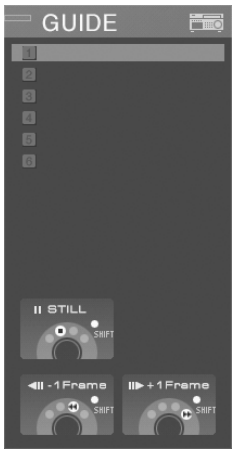


4 Press the MENU button to close the menu.

Performing Playback

1 Press the NEXT selection button to which the VCR to be controlled is assigned.

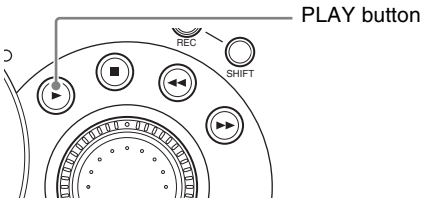
The VCR guide menu appears in the menu display.



Note

If a VCR is connected and the VCR guide menu does not appear, press the NEXT selection button again.

2 Press the PLAY button.



Playback starts in the source viewer and PVW viewer.

Other Playback Operations

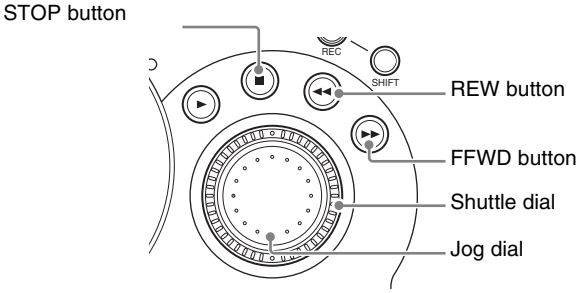
1 Press the NEXT selection button to which the VCR to be controlled is assigned.

The VCR guide menu appears in the menu display.

Note

If a VCR is connected and the VCR guide menu does not appear, press the NEXT selection button again.

2 Press any of the following buttons to carry out the operation.



STOP button
Stops playback.

Note

If you press the STOP button while holding down the SHIFT button, the video pauses.

REW button
Rewinds the videotape.

Note

If you press the REW button while holding down the SHIFT button, the video moves back one frame (and then pauses).

FFWD button
Fast-forwards the videotape.

Note

If you press the FFWD button while holding down the SHIFT button, the video moves forward one frame (and then pauses).

Shuttle dial
Turning this dial clockwise plays the video in the forward direction speed corresponding to the amount the dial is turned. Turning this dial counterclockwise plays the video in the reverse direction speed corresponding to the amount the dial is turned.

Jog dial
Plays the video at a slow speed that corresponds to the speed at which the dial is turned.

Notes

- Performance of the preceding functions is not guaranteed on all VCRs.
- Function speeds vary depending on the device.

Registering Cue-Up Points

If you register a position on the videotape to one of the numeric buttons from 1 to 6, you can access that position by simply pressing that numeric button.

1 Press the NEXT selection button to which the VCR to be controlled is assigned.

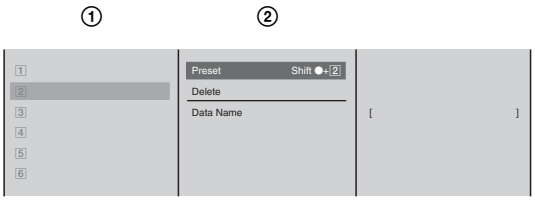
2 Play to the position to be cued up, and pause the video (STILL).

Caution

If the video is not in a pause (STILL) state, the cue-up point will not be registered accurately. Even in pause state, the accuracy of cue-up registration varies depending on the type of device used.

3 In the VCR guide menu, ① select the number to register the cue-up point to, and confirm; ② select [Preset], and confirm.

Example: When registering to numeric button [2].

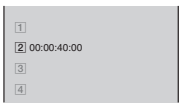


The cue-up point is registered to the corresponding numeric button on the front panel.

Note

You can also register the point by pressing numeric button [2] while holding down the SHIFT button.

The cue-up point is registered and the timecode of the position to be cued up is displayed.



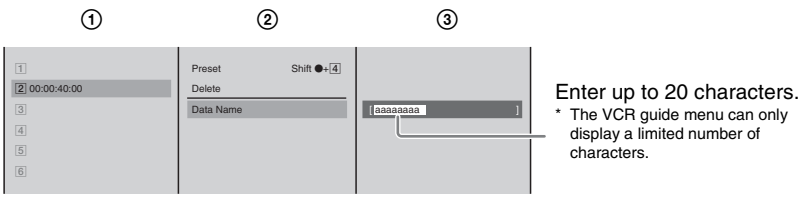
Note

To change the position to be cued up, repeat steps 2 and 3 above.

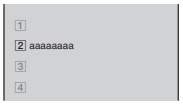
Naming cue-up points

1 Press the NEXT selection button to which the VCR to be controlled is assigned.

2 In the VCR guide menu, ① select the cue-up point, and confirm; ② select [Data Name], and confirm; ③ enter the name of the cue-up point in the input box, and confirm.



The display for the number selected in step 2 changes from the timecode to the cue-up point name.



Accessing Cue-Up Points

1 Press the NEXT selection button to which the VCR to be controlled is assigned.

The VCR guide menu appears in the menu display.

2 Press the numeric button to which the cue-up point is registered.

The video of the cue-up point appears and the screen is stopped.
The numeric button you pressed lights.

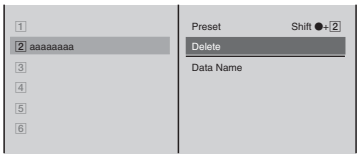
Caution

Operations that can make cue-up impossible such as inserting a different videotape from the one inserted at the time of cue-up point registration will have differing results depending on the VCR.

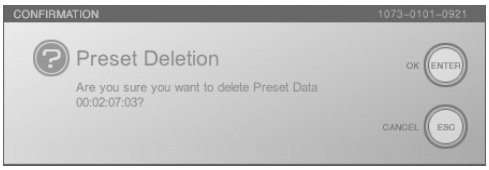
Deleting Cue-Up Points

1 Select the cue-up point you want to delete in the VCR guide menu.

2 Select [Delete], and confirm.



The following confirmation message appears.



Note

By pressing the ENTER button while holding down the SHIFT button, you can delete all of the cue-up points simultaneously.

3 Press the ENTER button.

The cue-up point is deleted.

Using AVI Files Created on Other Devices

You can copy AVI files created on other devices, such as your computer, onto an external hard disk and use the files on this unit.

Notes

- Connectivity with all nonlinear editing systems is not guaranteed. Commercially available software must be installed on the computer for recognization of the hard disk.
- Information on the driver software and file format (.avi) can be found on the following Anycast Station portal sites.
  https://servicesplus.us.sony.biz/SoftwarePlusSerch.aspx (for customers in U.S.A.)
  https://www.sonybiz.net/anycast (for customers in Europe, Middle East and Africa)
  https://www.ecspert.sony.biz/ecsite/ (for the other customers)

Supported AVI files

This unit supports AVI files created from DV captures and files output from nonlinear editing system as DV AVI files.

Caution

- Audio sampling rates of 48 kHz, 44.1 kHz, or 32 kHz are supported.
- Only file names containing alphanumeric characters (within 20 characters) are supported.
- The following files are not supported:

File type	Description
Non-AVI files	The file extension is not .avi (.dv, .mov, .mpg, .mp3, .wav, .m2t, etc.).
Files with codecs other than DV-SD	The codec identification code (FourCC) used in the AVI file is not dvsd.

Preparing AVI files created on other devices for use on this unit

As an example, the following describes the process of copying an AVI file from a computer and converting it for use on this unit.

Caution

- The external hard disk to be used must be formatted on the unit beforehand. For details on formatting, see “Formatting an External Hard Disk” (page 172).
- Before using an external hard disk, be sure to read “External Hard Disk” (page 12).

1 Install a driver software on the computer.

2 With an IEEE1394 cable, connect the external hard disk to the computer.

The external hard disk is recognized as two drives with the volume labels “system” and “data” that can be read and written to (this is referred to as “mounting”).

Caution

- If the external hard disk is not mounted automatically, mount it manually using the driver software.
- It may not be possible to mount the external hard disk, depending on its size. When formatting the external hard disk, select a size that allows connection to your computer. For details, see “Formatting an External Hard Disk” (page 172).

3 Copy the AVI files you want to use into the anycast/tmp folder found on the drive with the volume label “data”.

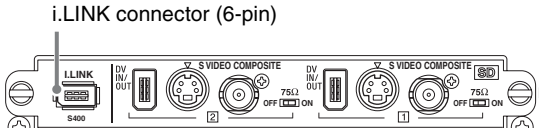
Note

If your external hard disk was formatted on an AWS-G500 with a software version older than 2.20, connect it to this unit and mount it again.

4 Disconnect the external hard disk from the computer, and connect it to the i.LINK connector (6-pin) on this unit.

Caution

Be sure to connect the external hard disk before powering on this unit.



5 Power on the external hard disk.

6 Press the ⏻ (power) button on the side panel to start up this unit.

The operation screen appears.

7 Press the MENU button.

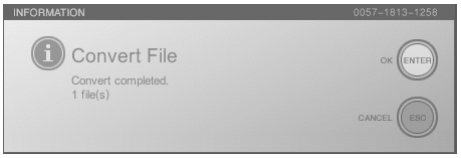
8 In the top menu, select [File Manager].

9 ① Select [Convert AVI], and confirm; ② select a hard disk number, and confirm; ③ select a file, and confirm.

Notes

- Only file names within 20 alphanumeric characters are displayed in the menu. Up to 255 files can be displayed.
- The file names may take some time to appear after selecting a hard disk number.

When file conversion is complete, the following message appears.



10 Press the ENTER button.

The AVI file can now be used on this unit.

File information after conversion

Logical name (appears only on this unit)	Retains the original file name (within 20 alphanumeric characters). • Files are displayed in a list under these names.
Physical name (created automatically by the unit during conversion)	Changes to the following, depending on the file type. (The physical name can be confirmed in the file information display.) AVI Type-1: date of conversion-CNV1-XXX AVI Type-2: date of conversion-CNV-XXX Example: 20070701-CNV-001
Date created	Date of conversion

Using a Computer To Play Files Recorded on an External Hard Disk

You can play files recorded with this unit, using a computer.

Notes

- Connectivity with all nonlinear editing systems is not guaranteed. Commercially available software must be installed on the computer for recognization of the hard disk.
- Information on the driver software and file format (.avi) can be found on the following Anycast Station portal sites.
  https://servicesplus.us.sony.biz/SoftwarePlusSerch.aspx (for customers in U.S.A.)
  https://www.sonybiz.net/anycast (for customers in Europe, Middle East and Africa)
  https://www.ecspert.sony.biz/ecsite/ (for the other customers)

1 Install a driver software on the computer.

2 With an IEEE1394 cable, connect the external hard disk to the computer.

The external hard disk is recognized as two drives with the volume labels “system” and “data” that can be read and written to (this is referred to as “mounting”).

Caution

- If the external hard disk is not mounted automatically, mount it manually using the driver software.
- It may not be possible to mount an external hard disk, depending on its size. When formatting the external hard disk, select a size that allows connection to your computer. For details, see “Formatting an External Hard Disk” (page 172).
- Depending on the application in use, the timecode recorded on the file may not be readable. In such a case, a timecode starting at 00:00:00:00 is displayed at the beginning of the file.

3 Select files from the folder anycast/data in the drive with volume label “data,” and play them back.

Disk partitioning

When the external hard disk is formatted on this unit, two partitions are created: a meta partition and a data partition.

Meta partition: administrative information; volume label: “system”
Data partition: storage for created files; volume label: “data”

Caution

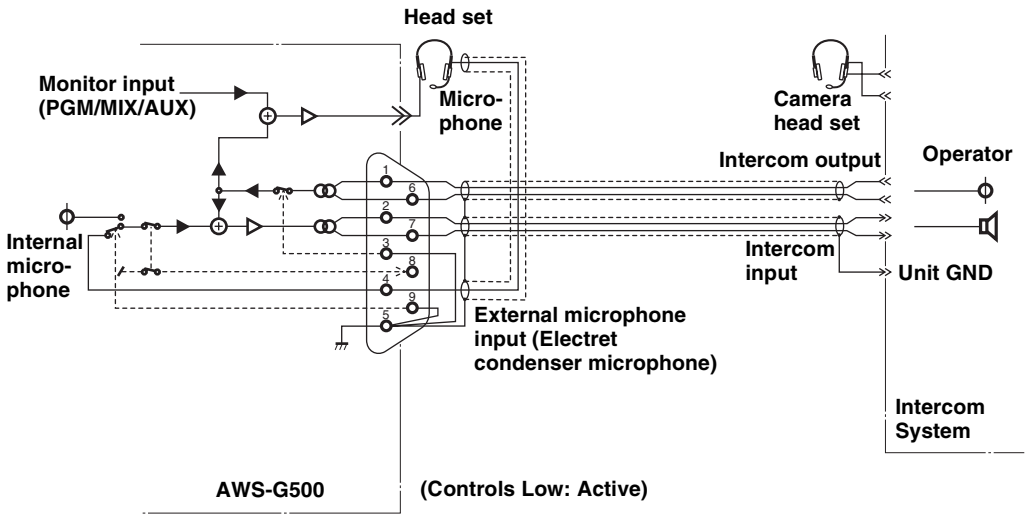
On the computer, if you alter the administrative information, or change file names, this will render the files unplayable on this unit.

Using the Intercom Function

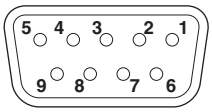
Connecting an external intercom system requires a connection operation by the customer.
An intercom system allows the operator to confer with camera operators and others in remote locations. You can use the built-in speakers of this unit and the front panel microphone.

Connecting the Intercom System

Connect the intercom system to the INTERCOM connector on the rear panel. The following shows a connection example of an intercom system.



When using a headset, connect the microphone connector to the INTERCOM connector, and connect the headphone connector to the HEADPHONES connector.

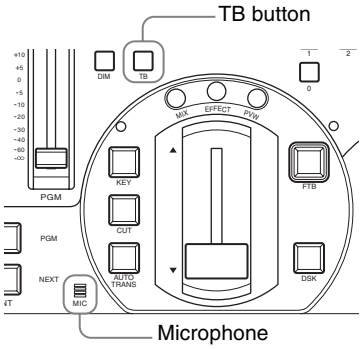


Pin No.	I/O	Signal name	Description
1	I	AUDIO IN (H)	INTERCOM AUDIO SIGNAL INPUT (H)
2	O	AUDIO OUT (H)	INTERCOM AUDIO SIGNAL OUTPUT(H)
3	I	CONTROL IN	INTERCOM RECEIVE CONTROL (LOW ACTIVE)
4	I	MIC IN (+)	ELECTRET CONDENSER MICROPHONE INPUT
5	-	GND	GROUND
6	I	AUDIO IN (C)	INTERCOM AUDIO SIGNAL INPUT (L)
7	O	AUDIO OUT (C)	INTERCOM AUDIO SIGNAL OUTPUT (L)
8	O	CONTROL OUT	TB CONTROL (LOW ACTIVE)
9	I	CONTROL IN	EXT MIC ACTIVE CMD (LOW ACTIVE)

Speaking on the Intercom System

1 Connect the external intercom system.

2 Press the TB (Talk Back) button, and speak into the front panel microphone (or headset microphone).



This transmits on the external intercom system.
You can listen on the external intercom system using the built-in speakers of this unit or headphones.

3 Press the TB button to finish conversation.

Note

While the TB button is lit, the DIM button lights. The relationship between the state of the TB button and the built-in speakers, headphones, and monitor output is as follows.

Monitoring state when using the intercom

Monitor output connector connection	TB button state	Internal speakers		Headphone output		Monitor output
		Output to be monitored *	Sound from the intercom system	Output to be monitored *	Sound from the intercom system	
Yes	On (lit)	Silence	Attenuated output **	Attenuated output **	Output	Output to be monitored * only is output continuously.
	Off	Silence	Output	Output	Output	
No	On (lit)	Attenuated output **	Attenuated output **	Attenuated output **	Output	
	Off	Output	Output	Output	Output	

* This indicates whichever of PGM, AUX1, AUX2, and MIX is selected for [Audio Monitor] in the [Audio Utility] top menu.

** The audio attenuation ("DIM") function reduces the output level by 20 dB from the normal value.

Monitoring Audio

Use the internal speakers or the connected headphones to monitor the audio input to the unit or the audio output from the unit.

Determining the Audio Signal Output Destinations

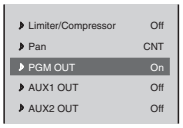
Select which output destinations to which the audio assigned for each channel fader should be routed. For the output destination, you can select the PGM output connectors, AUX output connectors, or MIX output connectors.

Output from the PGM output connectors

1 Press the ACCESS button in the same column of the channel fader to which the audio you want to be the program output is assigned.

2 In the top menu, select [PGM OUT], and confirm.

The setting turns on or off each time it is selected.



3 Press the ESC button to close the ACCESS menu.

Note

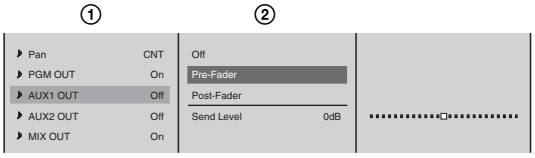
You can also close the menu by pressing the same ACCESS button again.

Output from the AUX output connectors

This unit has two sets of AUX output connectors (AUX1, AUX2), and you can create a mix balance with levels different from those of the PGM/MIX output.

1 Press the ACCESS button in the same column of the channel fader to which the audio you want to be the AUX output is assigned.

2 ① In the top menu, select [AUX1 OUT] or [AUX2 OUT]; ② in the submenu, select [Pre-Fader] or [Post-Fader], and confirm.



The functions of the setting items are as follows.

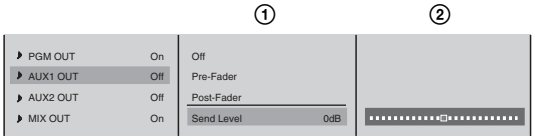
[Pre-Fader]: Outputs the audio before adjustment by the channel faders. In this case, the audio is output even when the CH ON button is Off.

[Post-Fader]: Outputs the audio after adjustment by the channel faders.

Note

In either case, when adjusting with the ACCESS menu, the output includes these adjustments (excluding pan).

3 After selecting [Pre-Fader] or [Post-Fader] and confirming, ① select [Send Level], and confirm; ② adjust the output level with the slider.



Press the ESC button, to close the ACCESS menu.

Caution

The AUX output connectors output the audio of mixing the left and right audio channels.

Output from the MIX output connectors

1 Press the ACCESS button in the same column as the channel fader to which the audio you want to be the MIX output is assigned.

2 In the top menu, select [MIX OUT] to set it [On], and confirm.
The setting turns on or off each time it is selected.

3 Press the ESC button to close the ACCESS menu.

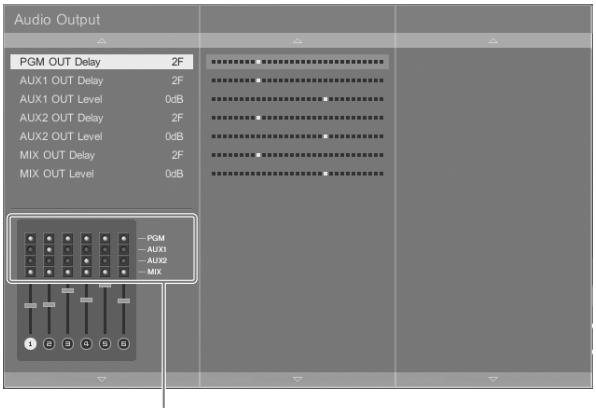
Displaying the Audio Signal Output Destinations

Check where the output destinations are set.

1 Press the MENU button.

2 In the top menu, select [Audio Output].

3 Check the output destination display.
The display lights green when set to [On] in the audio signal output destination settings (page 208).



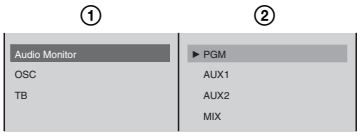
Monitoring Output Audio

You can select one audio output from this unit (program (PGM) output, AUX output, or MIX output), and listen to it on the internal speakers, speakers connected to the monitor output connectors, or headphones connected to the HEADPHONES connector.
Output sound level can be monitored using the audio level meters on the operation screen.

1 Press the MENU button.

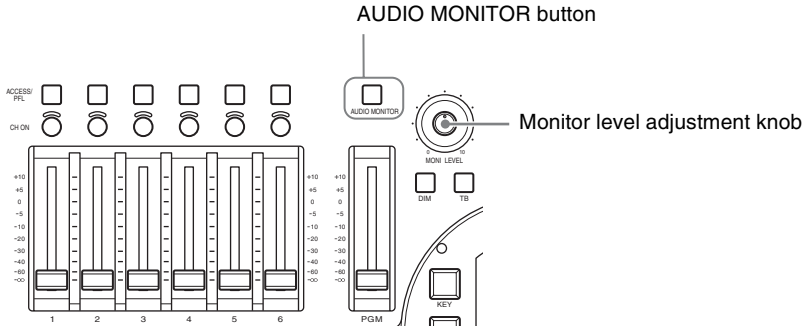
2 In the top menu, select [Audio Utility].

3 ① Select [Audio Monitor], and confirm; ② select the output to be monitored.

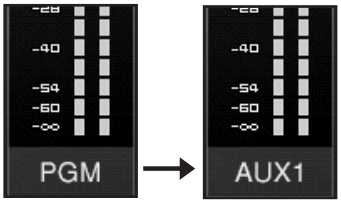


Notes

- Use the monitor level adjustment knob to adjust the level.
- Each time you press the AUDIO MONITOR button, the monitoring cycles through the following sequence. The output destination indication below the audio level meters also changes.



PGM → AUX1 → AUX2 → MIX → PGM ...



Monitoring the Audio of a Particular Channel Only

Use the Pre-Fader Listening (PFL) function to check the audio on a channel without the channel fader adjustments. You can do this, for example, on the internal speakers.
Hold down the ACCESS button for the channel you want to monitor for at least 0.5 seconds. While the button is held down, the audio for that channel is monitored.

When you release the ACCESS button, the monitoring is ended.

Notes

- If you press another ACCESS button for at least 0.5 second during PFL, the sound of the subsequently specified channel is added.
- This does not affect the program output, AUX output, or MIX output.

Video/Audio Signal Adjustments and Settings

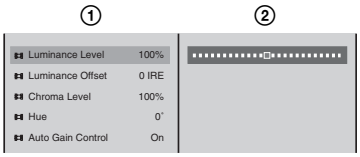
This section describes adjustments to the video and audio signals.
The image quality and sound quality of the inputs to this unit vary depending on factors such as the shooting conditions. This unit therefore has functions to adjust the video and audio of each input to this unit separately.
When using the ACCESS menu to adjust the video input, we recommend outputting the program video to an external monitor and confirming the results as you make adjustments.

Adjusting Analog Video Input Signals

The image quality of an analog video signal input from a composite input or S-video input connector may be adjusted.

1 Press the ACCESS button in the same column as the selection button for the video you want to adjust.

2 ① In the top menu, select the desired item; ② adjust with the sliders.



The functions of the setting items are as follows.
[Luminance Level]: Adjusts the luminance.
[Luminance Offset]: When inputting video with a 7.5 IRE setting to this unit, select [7.5 IRE].
[Chroma Level]: Adjusts the saturation.
[Hue]: Adjusts the hue.
[Auto Gain Control]: Adjusts the luminance signal to an optimal level.

Note

When applying an offset to the program output video, see “Applying an Offset to the Program Output Video” (page 215).

Caution

- The adjustment values given here are for reference only. Actual values may not match these theoretical values during operation.
- When [Auto Gain Control] is set to [On] and a dark object enters the frame while shooting with a bright background or a signal exceeding acceptable luminance levels is input, there may be a disturbance in video image quality. If this occurs, lower the [Luminance Level] slightly. If the problem persists, set [Auto Gain Control] to [Off].

3 Press the ESC button to close the ACCESS menu.

Note

You can also close the menu by pressing the same ACCESS button again.

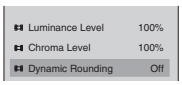
Making the Gradation of SDI Input Signals Appear Smooth (When Using a Serial Digital Interface Module or HD Serial Digital Interface Module)

Apply dynamic rounding to video signals input from an SDI or HD SDI connector to make the gradation appear smooth.
Dynamic rounding is applied by default. If you do not want to apply dynamic rounding, set this setting to [Off].

1 Press the ACCESS button in the same column as the selection button for the video signal you want to adjust.

2 In the top menu, select [Dynamic Rounding], and confirm.

The setting turns on or off each time it is selected.



3 Press the ESC button to close the ACCESS menu.

Note

If dynamic rounding is not performed, the video gradation will have visible contouring artifacts because this unit drops the lower 2 bits of 10 bit SDI or HD SDI input signals.

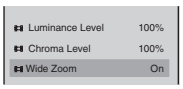
Converting 4:3 Source Materials to Wide Screen

Configure the following settings to convert 4:3 input materials to wide screen when the PGM output aspect ratio is set to 16:9 SD or 16:9 HD mode.

1 Press the ACCESS button in the same column as the selection button for the video you want to configure.

2 In the top menu, select [Wide Zoom] to set it [On], and confirm.

The setting turns on or off each time it is selected.



Caution

You cannot confirm this setting in the source viewer.

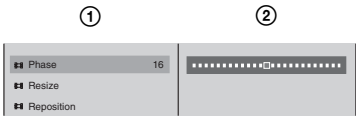
3 Press the ESC button to close the ACCESS menu.

Adjusting the Clock Phase of RGB Signals

Of the video signals assigned to the selection buttons, adjust the RGB signals input to the RGB input connectors.
Perform this adjustment to display small characters clearly.

1 Press the ACCESS button in the same column as the selection button for the RGB signal you want to adjust.

2 ① In the top menu, select [Phase], and confirm; ② adjust with the slider.

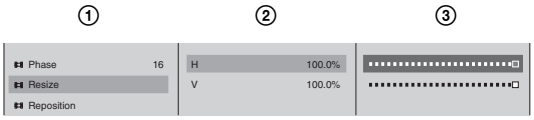


Adjusting the Screen Size of RGB Signals

You can adjust the screen size of RGB signals input from the RGB input connectors.

1 Press the ACCESS button in the same column as the selection button for the RGB signal you want to adjust.

2 ① Select [Resize] in the top menu, and confirm; ② select [H] or [V], and confirm; ③ adjust with the slider.



The functions of the setting items are as follows.
[H]: Adjusts the width reduction rate.
[V]: Adjusts the height reduction rate.

3 Press the MENU button to close the menu.

Note

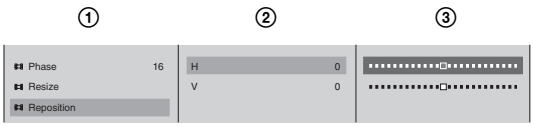
These settings are maintained even if the format of input RGB signals is changed.

Adjusting the Screen Position of RGB Signals

You can adjust the screen position of RGB signals input from the RGB input connectors.

1 Press the ACCESS button in the same column as the selection button for the RGB signal you want to adjust.

2 ① Select [Reposition] in the top menu, and confirm; ② select [H] or [V], and confirm; ③ adjust the position with the slider.



The functions of the setting items are as follows.
[H]: Adjusts the horizontal position.
[V]: Adjusts the vertical position.

3 Press the MENU button to close the menu.

Note

These settings are maintained even if the format of input RGB signals is changed.

Adjusting Color Matte

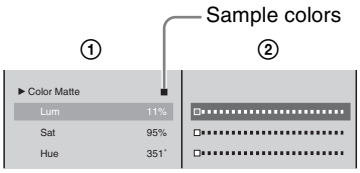
Adjust the colors used for color matte, used as single-color backgrounds and so on.

1 Press INT in the NEXT selection buttons.

The INT source selection menu appears.

2 ① Select the item (displayed under [Color Matte]) to be adjusted, and confirm; ② adjust with the sliders.

As you move the sliders, the sample colors shown in the menu change, so you can check while making the adjustment.



The functions of the setting items are as follows.
[Lum]: Adjusts the luminance.
[Sat]: Adjusts the saturation.
[Hue]: Adjusts the hue.

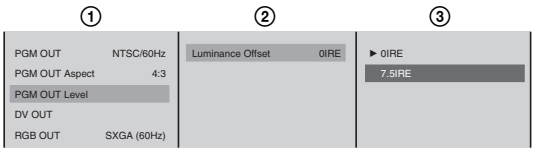
Applying an Offset to the Program Output Video

You can apply a 7.5 IRE offset to the program output video.

1 Press the MENU button.

2 In the top menu, select [Video Output].

3 ① Select [PGM OUT Level], and confirm; ② select [Luminance Offset] from the submenu, and confirm; ③ select [7.5 IRE], and confirm.



Note

Because there is no offset function for PAL, this setting is only enabled when [PGM OUT] is set to [NTSC].

4 Press the MENU button to close the menu.

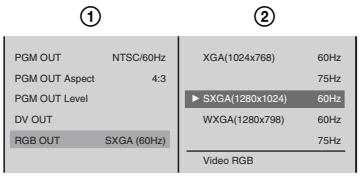
Setting the RGB Output Signal Format

Set the format of the signal output from the RGB output connectors on the rear panel.

1 Press the MENU button.

2 In the top menu, select [Video Output].

3 ① Select [RGB OUT], and confirm; ② select the combination of image size and frequency or [Video RGB], and confirm.



[XGA], [SXGA], [WXGA]: Output format for a computer monitor (computer RGB signals).
[Video RGB]: Output format for a video monitor (video RGB signals).

4 Press the MENU button to close the menu.

Caution

- Changing this setting may cause temporary breakup of the output video and the output reference signal.
- If the video output signal format is PAL, then when the [XGA], [SXGA], or [WXGA] setting is used, the top and bottom portions of the image will be missing in the output from the composite video and S-video output connectors. This can be remedied by setting [Video RGB], but in this case the computer monitor output will not be available.
- When inputting RGB signals to an external display, the images may be displayed at a different frame frequency from that of the RGB signal, depending on the display device you are using. On such devices, the images may appear to shake up and down slightly.

Notes

- When selecting [XGA], [SXGA], or [WXGA], we recommend that you select 60 Hz when the video output signal is NTSC format, and 75 Hz when the signal is PAL format.

- When [Video RGB] is selected, the number of valid scan lines is automatically set to 480 and the frequency to 60 Hz if the output signal format is NTSC, or to 576 lines and 50 Hz when the format is PAL.
- For details of the output signal format, see under video outputs in the Specification (page 300).
- The video image quality for each signal is as follows. Select the best setting for a particular requirement.

Signal name (connector name)	RGB video including fine text and similar	Video including motion
Computer RGB signal (RGB output connector)	Very clear	Depending on the combination, the motion may be slightly jerky*
Video RGB signal (RGB output connector)	Standard video quality (very slightly blurred)	Smooth
Composite/S-Video signal (composite video output connector/S-video output connector)	Standard video quality (somewhat more blurred than the Video RGB signal)	Smooth

* This occurs if the original frame frequency of the shot video and the RGB output frame frequency or signal processing frequency of a plasma display or projector are not in a whole number ratio.

Adding Aspect Ratio Information to Composite/S-Video Output Signals

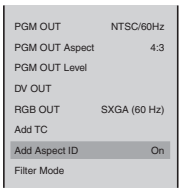
Aspect ratio information configured on the unit can be added to composite and S-video output signals.

1 Press the MENU button.

2 In the top menu, select [Video Output].

3 Select [Add Aspect ID] to set it [On], and confirm.

The setting turns on or off each time it is selected.



When the [PGM OUT Aspect] setting is 4:3, the ID added is also 4:3. When the setting is 16:9 SD or 16:9 HD, the ID added is 16:9 squeeze.

Note

On devices capable of receiving aspect ratio information, signals with a 16:9 squeeze ID attached are automatically stretched to 16:9 display.

4 Press the MENU button to close the menu.

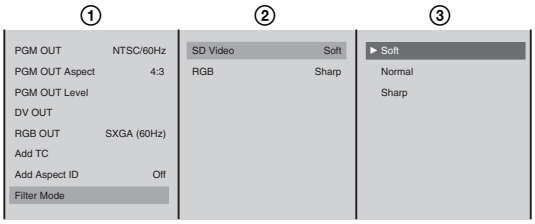
Applying Filters to the Program Output Video

Adjust this setting when the program output video appears blurry or the picture flickers.

1 Press the MENU button.

2 In the top menu, select [Video Output].

3 ① Select [Filter Mode], and confirm; ② select [SD Video] or [RGB] from the submenu, and confirm; ③ select [Soft], [Normal] (when [SD Video] is selected), or [Sharp], and confirm.



Caution

When [SXGA] or [WXGA] is selected for the RGB output signal format setting, you cannot apply a filter.

Notes

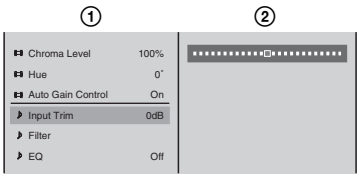
- Select [Sharp] when the picture is blurry and [Soft] when the picture flickers.
- When [Video RGB] is selected for the RGB output signal format setting, the [SD Video] filter settings is applied.

Adjusting the Audio Input Signal Levels

You can adjust individual channels of the audio signals input to this unit.

1 Press the ACCESS button for the channel fader to which the audio you want to adjust is assigned.

2 ① In the top menu, select [Input Trim]; ② adjust with the sliders.



3 Press the ESC button to close the ACCESS menu.

Note

You can also close the menu by pressing the same ACCESS button again.

Caution

When a file on an external hard disk is open, the adjustment value of [Input Trim] is used for file playback.

Cutting High Frequency or Low Frequency

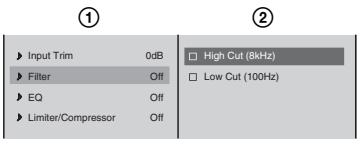
This cuts high frequencies or low frequencies.
Use these settings to suppress noise.

Notes

- To cut high frequencies select [High Cut], and to cut low frequencies select [Low Cut].
- You can set both [High Cut] and [Low Cut].

1 Press the ACCESS button in the same column as the channel fader to which the audio you want to adjust is assigned.

2 ① In the top menu, select [Filter]; ② select [High Cut (8kHz)] or [Low Cut (100Hz)].



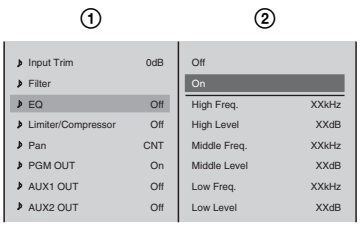
3 Press the ESC button to close the ACCESS menu.

Adjusting the Equalizer

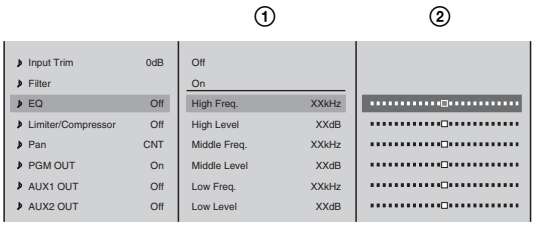
You can adjust the audio quality by using the equalizer to set frequencies in the high, middle, and low audio ranges.

1 Press the ACCESS button in the same column as the channel fader to which the audio you want to adjust is assigned.

2 ① In the top menu, select [EQ]; ② select [On], and confirm.



3 ① Select an adjustment item from the list, select [On], and confirm; ② adjust with the slider.



The functions of the setting items are as follows.

[High Freq.]: Adjusts the center frequency of the high-frequency band.

[High Level]: Adjusts the level of the high-frequency band.

[Middle Freq.]: Adjusts the center frequency of the middle-frequency band.

[Middle Level]: Adjusts the level of the middle-frequency band.

[Low Freq.]: Adjusts the center frequency of the low-frequency band.

[Low Level]: Adjusts the level of the low-frequency band.

4 Press the ESC button to close the ACCESS menu.

Using the Limiter or Compressor

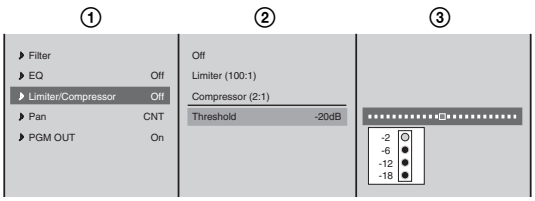
Use the limiter or compressor when inputting audio with large level differences. The limiter restricts the peak components of an audio signal with large level differences. It also compresses the sound exceeding a certain threshold volume so that the threshold level is not exceeded, thus preventing excess outputs.
The compressor gently compresses the level of audio at and above the threshold level, thus smoothing out an audio signal with large level differences.

1 Press the ACCESS button in the same column as the channel fader to which the audio you want to adjust is assigned.

2 ① In the top menu, select [Limiter/Compressor]; ② select [Limiter] or [Compressor], and confirm; ③ with the threshold slider set the level at which the limiter or compressor takes effect.

Note

A gain reduction meter appears to the right of the menu, and shows the current compression.

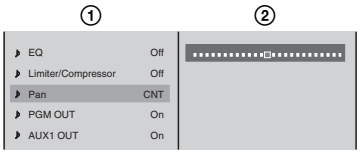


3 Press the ESC button to close the ACCESS menu.

Adjusting the Audio Left and Right Channel Balance

1 Press the ACCESS button in the same column as the channel fader to which the audio you want to adjust is assigned.

2 ① In the top menu, select [Pan]; ② adjust the left and right channel balance with the slider.



3 Press the ESC button to close the ACCESS menu.

Adjusting the Output Levels for Each Destination

Adjust the output audio level for each destination.

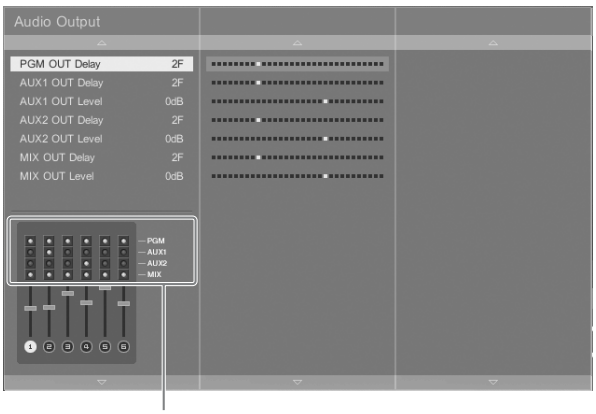
1 Press the MENU button.

2 In the top menu, select [Audio Output].

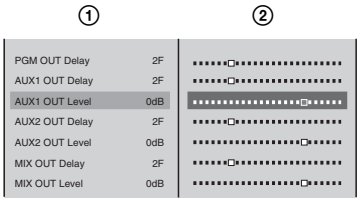
The [Audio Output] menu appears.

Note

This menu graphically displays the output destination for each channel set in "Determining the Audio Signal Output Destinations" (page 208).



3 ① Select the item you wish to adjust the level, and confirm; ② adjust with the slider.



The items for which you can adjust the level are as follows.

[AUX1 OUT Level]: Sets the output level for the audio output from the AUX1 connector.

[AUX2 OUT Level]: Sets the output level for the audio output from the AUX2 connector.

[MIX OUT Level]: Sets the output level for the audio from the MIX output.

Note

Adjust the audio level output from the PGM audio output connectors using the PGM fader on the front panel (page 171).

4 Press the MENU button to close the menu.

If the Output Video Is Delayed With Respect to the Audio

If the output video is delayed with respect to the audio, by delaying the audio you can resynchronize it with the video.

1 Connect monitor devices to the PGM video output connectors.

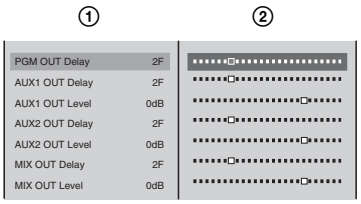
2 Connect devices to the PGM/AUX/MIX audio output connectors.

3 Press the MENU button.

4 In the top menu select [Audio Output].

The [Audio Output] menu appears.

5 ① Select the item connected to the connector in step 2, and confirm;
② while watching the video connected in step 1, adjust it with the slider.



The items for which you can adjust the delay time are as follows.

[PGM OUT Delay]: Sets the delay time for the program output audio in frame units.

[AUX1 OUT Delay]: Sets the delay time for the audio output from the AUX1 connector in frame units.

[AUX2 OUT Delay]: Sets the delay time for the audio output from the AUX2 connector in frame units.

[MIX OUT Delay]: Sets the delay time for the audio from the MIX output in frame units.

Caution

- As the duration for one frame in 720p signal format is half of that in 1080i format, you must set the audio delay time to half the value set for 1080i when using 720p.
- Adjusting the delay time may cause noise to occur.

- Video displayed on the PGM viewer lags several frames behind the video output from the PGM video output connectors.

6 Press the MENU button, to close the menu.

Adjusting the Output Using the Oscillator Signal

This is for setting the output oscillator signal for use during adjustment.

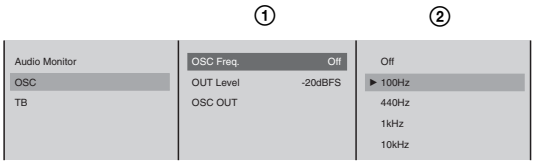
1 Press the MENU button.

2 In the top menu, select [Audio Utility].

3 Select [OSC], and confirm, and set the oscillator signal output.

Setting the oscillator signal frequency

① Select [OSC Freq.], and confirm; ② select the frequency from the submenu, and confirm.

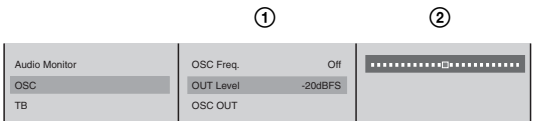


Note

When the output destination is set with [OSC OUT], and a selection other than [Off] is made, the DIM button lights, and the levels of the internal speakers, the headphones, and monitor outputs are automatically reduced.

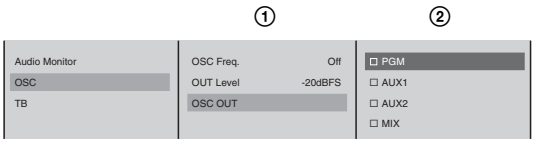
Setting the oscillator signal output level

① Select [OUT Level], and confirm; ② adjust the output level with the slider.



Setting the oscillator signal output destination

① Select [OSC OUT], and confirm; ② select the output destination to output the oscillator signal, and confirm.



Note

You can select multiple output destination.

4 Press the MENU button to close the menu.

Saving and Loading Various Settings

You can simultaneously save various settings of the unit and information of camera presets, and then load them when necessary. Saving the optimal settings beforehand eliminates the need to reconfigure settings each time you, for example, work on site or use multiple configurations for events.

Storable Data

You can save the following settings and adjustment data.

Storable settings and adjustments		Details of settings
Input/output	Audio input/output settings and adjustments	[Audio Input Assign] settings [Audio MIC/LINE Level] settings [Audio Output] settings
	Video input/output settings and adjustments	[Video Input Assign] settings [Video Output] settings
Preset data	Camera preset data	Camera preset settings registered in the camera guide menu
	VCR cue-up point data	Cue-up points registered in the VCR guide menu
	Graphics files	Graphics files registered in the graphics preset menu
	Video effect snapshot data	Video effect settings registered in [Effect Pattern]
Various adjustments	Audio adjustments	ACCESS menu settings for the inputs 1 to 6
	Video adjustments	ACCESS menu settings for the inputs 1 to 6
Streaming	Streaming configuration file	[Streaming] settings However, the [Output] setting is not applicable (it is set to [Off] for loading data).
Video utility		Settings of the [VISCA Power Control] menu
Audio utility		[Audio Utility] settings
Effects	Video effect settings	[Video Effect] settings
	Downstream key settings	[DSK] settings
	Fade to black settings	[Fade To Black] settings
	Streaming file settings	[Logo] settings

Storable settings and adjustments		Details of settings
Other	Network settings	[Network] settings
	EDL file name	[File Name] setting of [EDL]
	Camera control settings	Settings of the camera guide menu
	File control settings of external hard disks	[Auto Repeat] settings of the HDD file guide menu
	System timecode settings	[System TC] settings of [System]
	Language settings	[Language] settings
	Display settings	[Display] settings
	Aspect ratio for 4:3 graphics files	[Wide Zoom] settings of the INT guide menu
	Selection status of audio channels	On/Off status of the CH ON button

Saving Various Settings Data

You can simultaneously save the current settings of the unit.

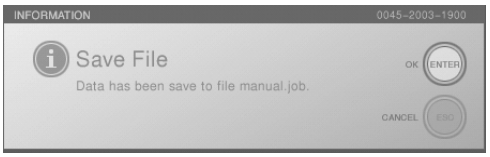
1 Press the MENU button.

2 Select [Job] in the top menu.

3 ① Select [Save], and confirm; ② enter the name of the data in the input box, and confirm.

Enter up to 20 alphanumeric characters.

The following confirmation message appears.



4 Press the ENTER button.

The message closes and saving completes.

5 Press the MENU button to close the menu.

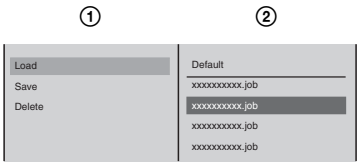
Loading Various Saved Settings Data

You can load saved job data.

1 Press the MENU button.

2 Select [Job] in the top menu.

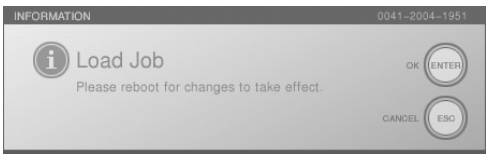
3 ① Select [Load], and confirm; ② select the name of the data to load, and confirm.



Notes

- The data names are sorted in alphabetical order from top to bottom.
- You can restore the default settings by selecting [Default].

The following confirmation message appears.



4 Press the ENTER button.

The end message appears.
The operating software ends and the power turns off.

5 Press the ⏻ power button on the side panel.

The unit starts and the settings you loaded are applied.

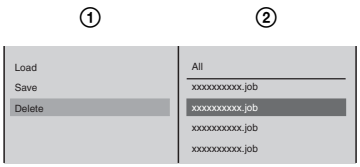
Deleting Various Saved Settings Data

You can delete the job data you no longer require.

1 Press the MENU button.

2 Select [Job] in the top menu.

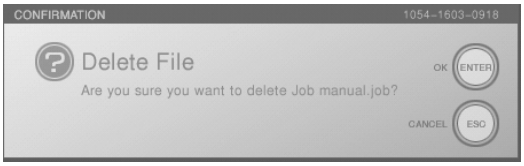
3 ① Select [Delete], and confirm; ② select the name of the data to delete, and confirm.



Notes

- The data names are sorted in alphabetical order from top to bottom.
- You can delete all of the job data by selecting [All].

The following confirmation message appears.



4 Press the ENTER button.

The job data is deleted.

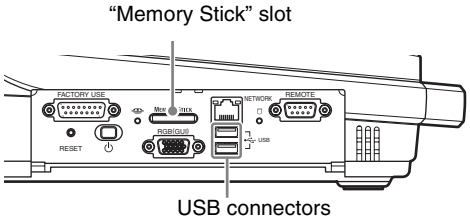
5 Press the MENU button to close the menu.

Exporting Various Settings Data

You can export the job data saved on the unit to a “Memory Stick” or USB flash memory.

1 Insert the “Memory Stick” or USB flash memory in the “Memory Stick” slot or USB connector on the side panel.

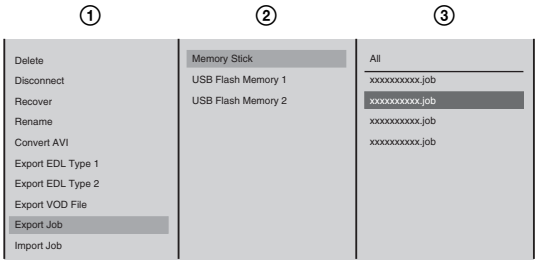
The upper USB connector is number 1 and the lower connector is number 2.



2 Press the MENU button.

3 Select [File Manager] in the top menu.

4 ① Select [Export Job], and confirm; ② select [Memory Stick], [USB Flash Memory 1], or [USB Flash Memory 2], and confirm; ③ select the job data to export, and confirm.



Notes

- The data names are sorted in alphabetical order from top to bottom.
- If you select [All] in ③, all files are exported. If files of the same name already exist on the “Memory Stick” or USB flash memory when exporting all files, an overwrite confirmation message appears. When you want to overwrite all of the existing files with the same name, press the ENTER button while holding down the SHIFT button. When you want to

skip all of the files with the same name and only export file names that do not already exist, press the ESC button while holding down the SHIFT button.

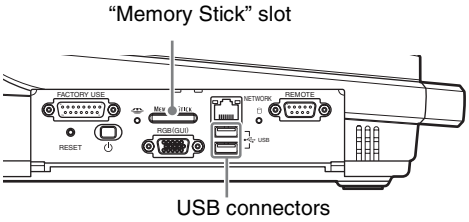
The job data is exported to the “Memory Stick” or USB flash memory. When the export is complete, a completion message appears.

5 Press the ENTER button.

6 Press the MENU button to close the menu.

Importing Various Settings Data

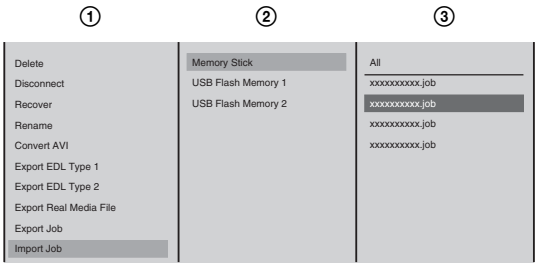
You can import the job data saved on a “Memory Stick” or USB flash memory. Insert the “Memory Stick” or USB flash memory containing the job data in the “Memory Stick” slot or USB connector on the side panel. The upper USB connector is number 1 and the lower connector is number 2.



1 Press the MENU button.

2 Select [File Manager] in the top menu.

3 ① Select [Import Job], and confirm; ② select [Memory Stick], [USB Flash Memory 1], or [USB Flash Memory 2], and confirm; ③ select the job data to import, and confirm.



Notes

- The data names are sorted in alphabetical order from top to bottom.
- If you select [All] in ③, all of the job data is imported. If files of the same name already exist on the internal hard disk when importing all files, an overwrite confirmation message appears. When you want to overwrite all of the existing files with the same name, press the ENTER button while holding down the SHIFT button. When you want to skip all of the files with the same name and only import file names that do not already exist, press the ESC button while holding down the SHIFT button.

The job data is imported.
When the import is complete, a completion message appears.

4 Press the ENTER button.

5 Press the MENU button to close the menu.

Using the Switching Information of the Unit on a Nonlinear Editing System

You can save the timing of switching performed on this unit or information on used materials as an EDL (Edit Decision List).
To make the editing process easier, the created EDL can be exported to a "Memory Stick" or USB flash memory and then used on a nonlinear editing system together with material recorded to an external hard disk.

Creating EDL

Created EDL

The created EDL is saved in the CMX3600 format.
Information on nonlinear editing systems and other information related to EDLs can be found on the following Anycast Station portal sites.
https://servicesplus.us.sony.biz/SoftwarePlusSerch.aspx (for customers in U.S.A.)
https://www.sonybiz.net/anycast (for customers in Europe, Middle East and Africa)
https://www.ecspert.sony.biz/ecsite/ (for the other customers)

Conditions of EDL

- Audio combined with video signals is output as data at the same timing as video switching.
- Mix, wipe, and picture-in-picture are replaced with the cut information.
- Information such as keying, downstream keying, logos, and fade to black is not output.

Caution

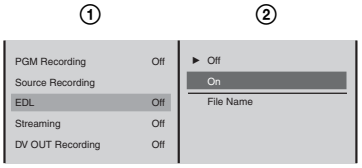
- When using an EDL on a nonlinear editing system, use a file recorded on an external hard disk with simultaneous ON LINE recording. A file that has been recorded manually may not be able to be used properly due to timecode inconsistencies between the EDL and the file.
- Use the reference signals output from the unit's reference output connectors to synchronize the unit with input devices such as cameras.

Preparing for EDL creation

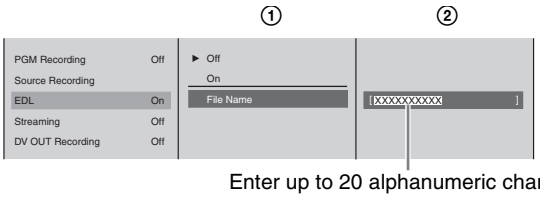
1 Press the MENU button.

2 Select [ON LINE Manager] in the top menu.

3 ① Select [EDL], and confirm; ② select [On], and confirm.



4 ① Select [File Name], and confirm; ② enter the name of the EDL file in the input box, and confirm.

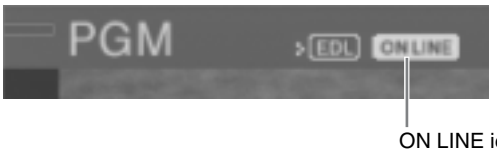


5 Press the MENU button to close the menu.

You are now ready to start creating an EDL.

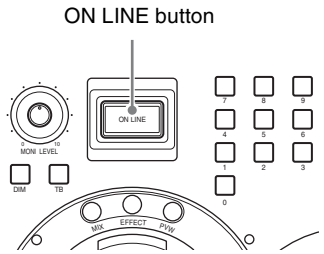
Note

When [Output] for [EDL] is set to [On], the ON LINE icon for VCRS appears in the PGM viewer.



Starting EDL creation

If you press the ON LINE button, EDL creation starts and subsequent switching operation information is recorded.



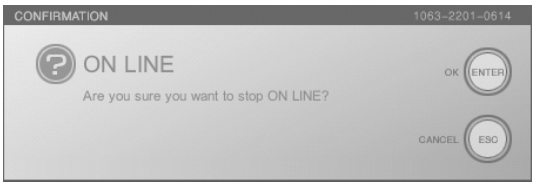
Note

You can also activate all of the reserved functions for the ON LINE button simultaneously. For details, see “Activating Each Function Simultaneously With the ON LINE Button” (page 266).

Ending EDL creation

1 Press the ON LINE button.

The following confirmation message appears.



2 Press the ENTER button.

EDL creation ends.

Caution

After pressing the ENTER button, EDL creation will take approximately 10 seconds to end completely. Do not perform operations such as system shutdown or starting up the Text Typing Tool during this period.

Notes

- If you press the ON LINE button while holding down the ESC button in step 1, EDL creation ends without a confirmation message display.
- A consecutive number (1 to 999) is added automatically to each EDL file name to enable the next EDL to be created.

Creating the next new EDL

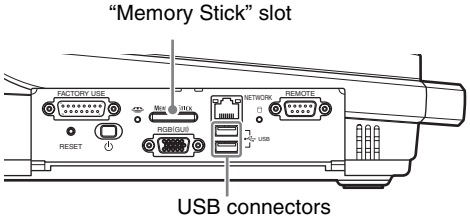
To create another EDL, press the ON LINE button.
There is no need to enter a new file name because a consecutive number is added automatically to each EDL file name.
To create an EDL with a different file name, repeat step 4 of "Preparing for EDL creation" (page 230).

Exporting EDL

You can export an EDL file to a "Memory Stick" or USB flash memory.

1 Insert the "Memory Stick" or USB flash memory in the "Memory Stick" slot or USB connector on the side panel.

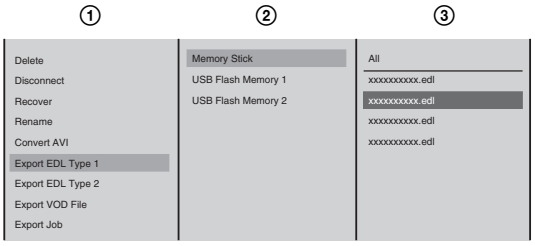
The upper USB connector is number 1, and the lower connector is number 2.



2 Press the MENU button.

3 In the top menu, select [File Manager].

4 ① Select [Export EDL Type 1] or [Export EDL Type 2], and confirm; ② select [Memory Stick], [USB Flash Memory 1], or [USB Flash Memory 2], and confirm; ③ select the EDL file, and confirm.



Type1: This EDL is compatible with Final Cut Pro 5.
Final Cut Pro is a registered trademark of Apple Computer, Inc. in the United States and other countries.

Type2: This EDL is compatible with Adobe Premiere Pro 2.0.
Adobe Premiere Pro is a registered trademark of Adobe Systems Incorporated in the United States and other countries.

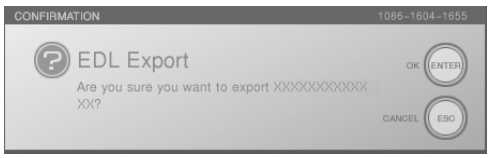
Caution

Compatibility of EDL files exported from this unit is not guaranteed by Apple Computer, Inc. or Adobe Systems Incorporated.

Notes

- The file names are arranged in alphabetical order.
- If you select [All] in ③, all files are exported. If files of the same name already exist on the "Memory Stick" or USB flash memory when exporting all files, an overwrite confirmation message appears. When you want to overwrite all of the existing files with the same name, press the ENTER button while holding down the SHIFT button. When you want to skip all of the files with the same name and only export file names that do not already exist, press the ESC button while holding down the SHIFT button.

The following confirmation message appears.



5 Press the ENTER button.

The EDL file is exported to the "Memory Stick" or USB flash memory. When the export is complete, a completion message appears.

6 Press the MENU button to close the menu.

Note

The "type" for the exported file is added to the file name.
Example: When a file, "aaa.edl," is exported as Type 1, the file name becomes "aaa-type1.edl."

Deleting EDL Files

For details on deleting EDL files on the internal hard disk of this unit, see "Deleting Files" (page 240).

Using an EDL Created on the Unit on a Nonlinear Editing System

An EDL file created by the unit can be used on a nonlinear editing system together with input materials recorded by the unit through ON LINE recording.

Notes

- Connectivity with all nonlinear editing systems is not guaranteed. Commercially available software must be installed on the computer for recognization of the hard disk.
- Information on this function, including the driver software information, can be found on the following Anycast Station Web portals.
  https://servicesplus.us.sony.biz/SoftwarePlusSerch.aspx (for customers in U.S.A.)
  https://www.sonybiz.net/anycast (for customers in Europe, Middle East and Africa)
  https://www.ecspert.sony.biz/ecsite/ (for the other customers)

1 Install a driver software in the computer.

2 Insert the “Memory Stick” or USB flash memory containing the EDL file into the computer, and connect the external hard disk containing the recorded materials to the computer.

Note

Make sure that hard disk is mounted as two drives with the volume labels “system” and “data.”

3 Start up the nonlinear editing system.

4 Load the EDL.

5 Perform a media link (reconnection) for each .avi file found in each of the input materials displayed.

6 Perform editing.

Importing, Renaming, and Deleting Files

Using the [File Manager] menu, you can carry out the following file operations.

- Importing graphics files and logo files from a “Memory Stick” or USB flash memory
- Renaming files
- Exporting VOD files
- Deleting EDL files, graphic files, and logo files saved on the internal hard disk of this unit
- Deleting files recorded on an external hard disk
- Checking the remaining capacity of the internal hard disk
- Formatting a “Memory Stick,” USB flash memory, or external hard disk

Importable Files

You can import graphics files in the sizes listed below. Depending on the size of a graphics file, it may be resized on import.

Sizes allowed for import

You can import any files with a width of 720 to 1,920 and an aspect ratio of one of the following: 4:3, 5:4, 5:3, 16:9, or 16:10.

Importable file types and extensions

File type	File extension
Targa	.tga .vda .icb .vst
Tiff	.tif .tiff
BMP	.bmp
JPEG	.jpeg .jpg .jpe

Notes

- You can use the alpha channel of a graphics file as the key source, allowing for higher quality materials to be inserted.
- For details on the output display of graphics files, see “Relation between aspect ratio settings and output signals” (page 53).
- The unit may not support some graphics files in which centimeters (cm) were specified during creation in Microsoft PowerPoint. Files in which inches were specified are ok. If you do specify centimeters, the recommended size is 45.15 cm × 25.4 cm.

Caution

If you create a graphics file with Microsoft PowerPoint for use in downstream keying or luminance keying, save it in BMP format.

Importing Graphics Files

By importing a graphics file to the internal hard disk, you can use it for downstream keying or luminance keying.

1 Insert the “Memory Stick” or USB flash memory holding the graphics file in the “Memory Stick” slot or USB connector in the side panel.

Caution

- Use a “Memory Stick” or USB flash memory that has been formatted using this unit.
- The graphics file must have been placed in the designated folder MSSONY/PRO/LPS/ANYCAST/CG for graphics files.

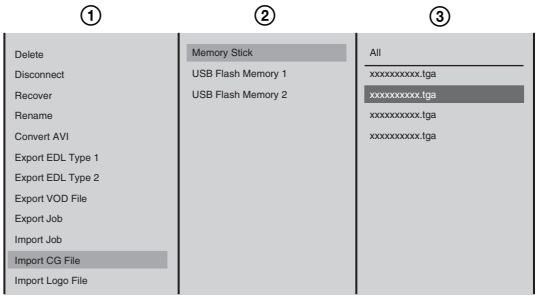
For details of formatting a “Memory Stick,” see “Formatting a “Memory Stick” (page 243), and for details of formatting a USB flash memory, see “Formatting a USB Flash Memory” (page 245).

2 Press the MENU button.

3 In the top menu, select [File Manager].

4 ① Select [Import CG File], and confirm; ② Select [Memory Stick], [USB Flash Memory 1], or [USB Flash Memory 2], and confirm; ③ Select the graphics file to be imported, and confirm.

The upper USB connector is number 1, and the lower connector is number 2.



Note

If you select [All] in step ③, all of the files are imported. If files of the same name already exist on the internal hard disk when importing all files, an overwrite confirmation message appears. When you want to overwrite all of the existing files with the same name, press the ENTER button while holding down the SHIFT button. When you want to skip all of the files with the same name and only import file names that do not already exist, press the ESC button while holding down the SHIFT button. However, depending on the list order of the files on the internal hard disk, the overwrite confirmation message may appear again.

Caution

- Characters other than alphanumeric characters cannot be displayed correctly.
- If you execute an auto transition or fade to black while import is in progress, the image quality of the program output may deteriorate.

This imports the graphics file.
When the import is completed, a completion message appears.

5 Press the ENTER button.

6 Press the MENU button to close the menu.

Note

The imported graphics file can be used in “Using the Downstream Key (DSK) Function To Add Text or an Image” (page 90), “Using Luminance Keying” (page 99), or “Using Chroma Keying” (page 103).

Importing Logo Files

By importing a logo file to the internal hard disk, you can display an image (logo) for the purpose of copyright protection.

1 Insert the “Memory Stick” or USB flash memory holding the logo file in the “Memory Stick” slot or USB connector in the side panel.

Caution

- Use a “Memory Stick” or USB flash memory that has been formatted using this unit.
- The logo file must have been placed in the designated folder MSSONY/PRO/LPS/ANYCAST/LOGO for logo files.

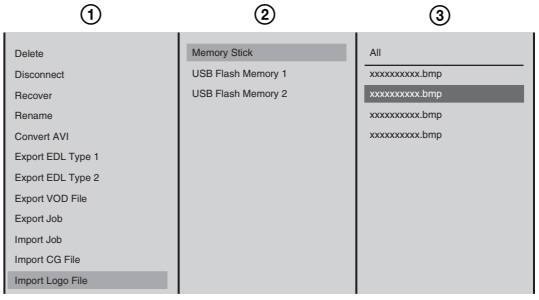
For details of formatting a “Memory Stick,” see “Formatting a “Memory Stick”” (page 243), and for details of formatting a USB flash memory, see “Formatting a USB Flash Memory” (page 245).

2 Press the MENU button.

3 In the top menu, select [File Manager].

4 ① Select [Import Logo File], and confirm; ② select [Memory Stick], [USB Flash Memory 1], or [USB Flash Memory 2], and confirm; ③ select the logo file to be imported, and confirm.

The upper USB connector is number 1, and the lower connector is number 2.



Note

If you select [All] in step ③, all of the files are imported. If files of the same name already exist on the internal hard disk when importing all files, an overwrite confirmation message appears. When you want to overwrite all of the existing files with the same name, press the ENTER button while holding down the SHIFT button. When you want to skip all of the files with the same

name and only import file names that do not already exist, press the ESC button while holding down the SHIFT button.

Caution

Characters other than alphanumeric characters cannot be displayed correctly.

This imports the logo file.
When the import is completed, a completion message appears.

5 Press the ENTER button.

6 Press the MENU button to close the menu.

Note

The imported logo file can be used in "Showing a Logo on the Screen" (page 97).

Renaming Files

You can rename the following file types.
- AVI files (.avi) stored on an external hard disk
- VOD files (.rmvb)

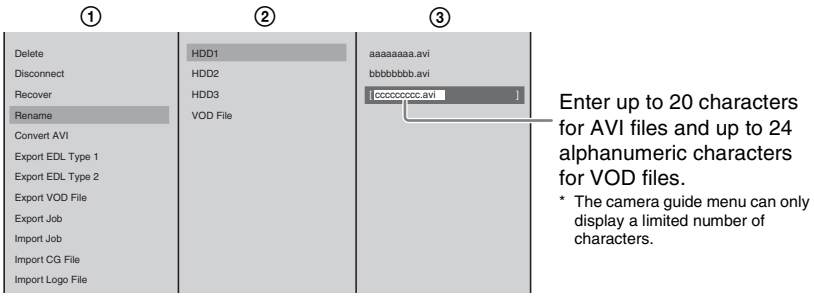
Caution

File names for converted AVI files appear only on this unit. The name shown in the file information display (physical name) appears when the external hard disk is connected to a computer.

1 Press the MENU button.

2 In the top menu, select [File Manager].

3 ① Select [Rename], and confirm; ② select a hard disk number or [VOD File], and confirm; ③ select the file to rename, input the new name, and confirm.



4 Press the ENTER button.

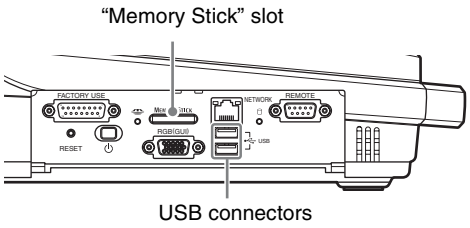
5 Press the MENU button to close the menu.

Exporting VOD Files

You can export a VOD file to a "Memory Stick" or USB flash memory.

1 Insert the “Memory Stick” or USB flash memory in the “Memory Stick” slot or USB connector on the side panel.

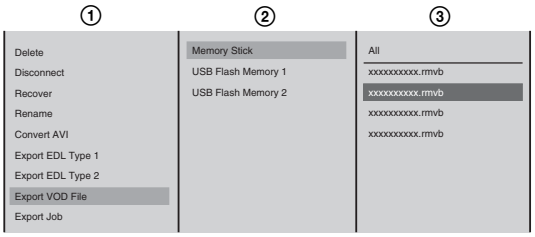
The upper USB connector is number 1, and the lower connector is number 2.



2 Press the MENU button.

3 In the top menu, select [File Manager].

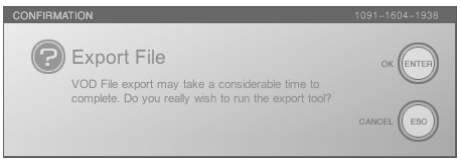
4 ① Select [Export VOD File], and confirm; ② select [Memory Stick], [USB Flash Memory 1], or [USB Flash Memory 2], and confirm; ③ select the VOD file to export, and confirm.



Notes

- The file names are arranged in alphabetical order.
- If you select [All] in step ③, all of the files are exported. If files of the same name already exist on the “Memory Stick” or USB flash memory when exporting all files, an overwrite confirmation message appears. When you want to overwrite all of the existing files with the same name, press the ENTER button while holding down the SHIFT button. When you want to skip all of the files with the same name and only export file names that do not already exist, press the ESC button while holding down the SHIFT button.

The following confirmation message appears.



5 Press the ENTER button.

The VOD file is exported to the “Memory Stick” or USB flash memory. When the export is complete, a completion message appears.

6 Press the MENU button to close the menu.

Caution

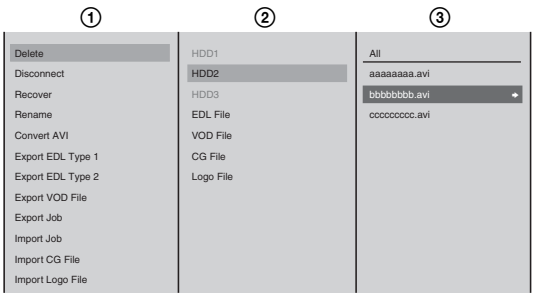
Exporting VOD files can take time. A 128 MB file takes about 3 minutes to export, while a 2 GB file takes about 1 hour.

Deleting Files

1 Press the MENU button.

2 In the top menu, select [File Manager].

3 ① Select [Delete], and confirm; ② select [EDL File], [VOD File], [CG File], [Logo File] or the hard disk No., and confirm; ③ select the file to be deleted, and confirm.

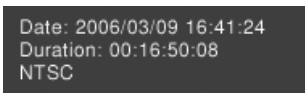


Notes

- It is not possible to delete files on the hard disk that are being used for recording. End the recording before deleting them.
- The file names are arranged in alphabetical order.
- If you select [All] at step ③, all files are deleted.
- **File information (for the hard disk, EDL file, graphics file, logo file, and VOD file)**
  Information on the selected hard disk or EDL file and a thumbnail are displayed as shown below if you press and hold down the → button of the jog roller or the → key on the keyboard.

Hard disk

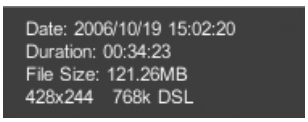
EDL file



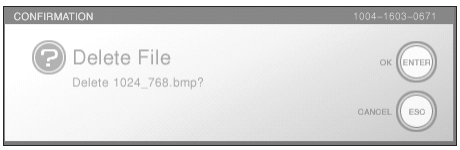
Graphics file

Logo file

VOD file



The following confirmation message appears.



4 Press the ENTER button.

The deletion message appears and the file is deleted.

Caution

If the system is shut down or Text Typing Tool is started while a file in the internal hard disk is being deleted, the hard disk will need to be recovered.

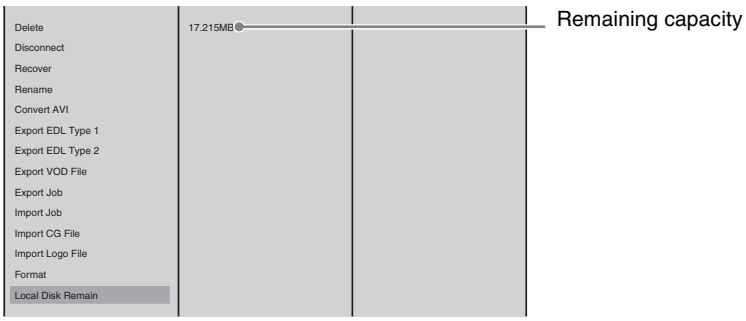
5 Press the MENU button to close the menu.

Checking the Internal Hard Disk Remaining Capacity

1 Press the MENU button.

2 In the top menu, select [File Manager].

In the [File Manager] menu, the remaining capacity is shown as [Local Disk Remain].



Formatting a “Memory Stick”

Format a “Memory Stick” so that it can be used with this unit.

In this unit, use the following “Memory Stick” types.

“Memory Stick” type	Use for reading/ writing on this unit
“Memory Stick” “Memory Stick” (with memory select function) “Memory Stick Duo”	Yes
“Memory Stick” (Magicgate/high-speed data transfer support) “Memory Stick Duo” (Magicgate/high-speed data transfer support)	Yes*
Magicgate “Memory Stick” Magicgate “Memory Stick Duo”	Yes*
“Memory Stick PRO”	Yes*, **
“Memory Stick PRO Duo”	Yes*, **

* It is not possible to read or write data that requires the Magicgate function.
** This unit does not support parallel data transfer (high-speed data transfer).

Caution

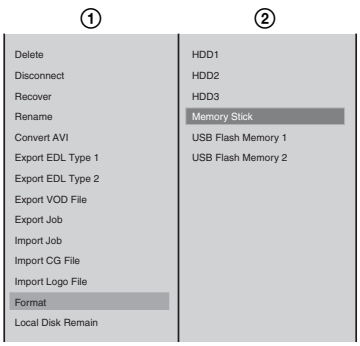
Operation with all types of “Memory Stick” media is not guaranteed.

1 Insert the “Memory Stick” in the “Memory Stick” slot on the side panel.

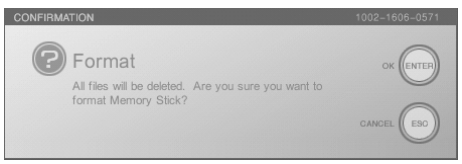
2 Press the MENU button.

3 In the top menu, select [File Manager].

4 ① Select [Format], and confirm; ② [Memory Stick], and confirm.

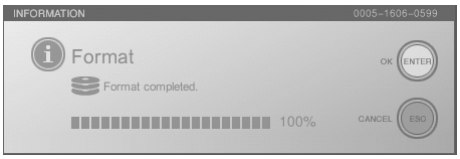


The following message appears.



5 Press the ENTER button.

The formatting begins.
When the formatting ends, the following message appears.



6 Press the ENTER button, to close the message.

Note

Formatting a “Memory Stick” on this unit automatically creates the following directory structure on the “Memory Stick.”
MSSONY/PRO/LPS/ANYCAST/INSTALL
/JOB
/LICENCE
/CG
/LOGO
/VOD
/EDL
/FONT

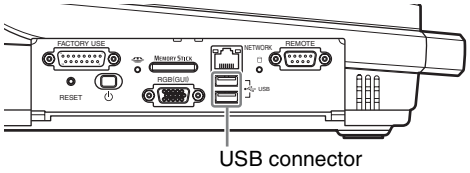
7 Press the MENU button to close the menu.

Formatting a USB Flash Memory

Format a USB flash memory in order to use it with this unit.

1 Insert the USB flash memory into the USB connector on the side panel.

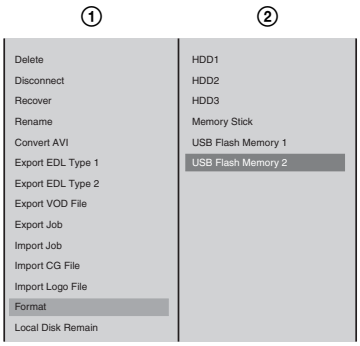
The upper USB connector is number 1, and the lower connector is number 2.



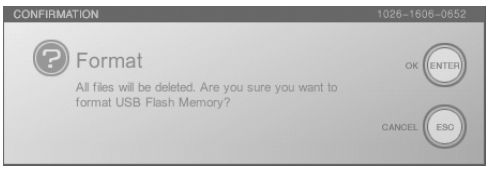
2 Press the MENU button.

3 In the top menu, select [File Manager].

4 ① Select [Format], and confirm; ② select [USB Flash Memory 1] or [USB Flash Memory 2], and confirm.

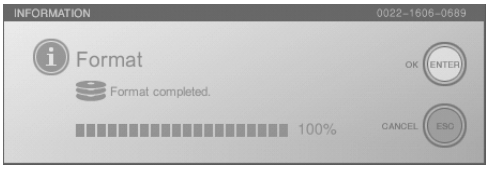


The following confirmation message appears.



5 Press the ENTER button.

Formatting starts.
When formatting is completed, the following message appears.



6 Press the ENTER button, to close the message.

Note

Formatting USB flash memory on this unit automatically creates the following folder structure in the USB flash memory.

MSSONY/PRO/LPS/ANYCAST/INSTALL
/JOB
/LICENCE
/CG
/LOGO
/VOD
/EDL
/FONT

7 Press the MENU button, to close the menu.

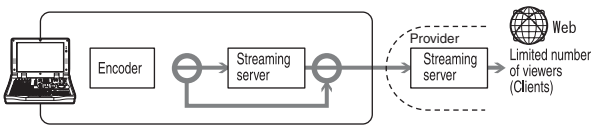
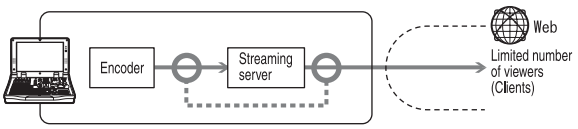
Streaming

You can encode the program output into Real Media streaming file format (.rm) within this unit, and broadcast it on the network.

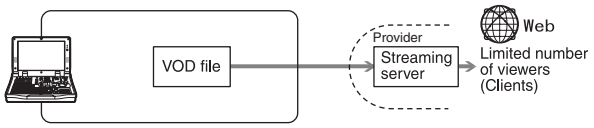
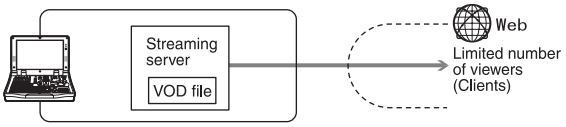
What Is Streaming?

Streaming is one method of the transmitting multimedia data. Video and audio data is sent across a network, and may be played in real time.
To carry out live streaming with this unit, the program video and audio is encoded in the format used by Real Player, and transmitted.
Encoding takes place on the unit. There are the following two transmission methods.

Live Streaming

Transmission method	Features
Using your provider's streaming server	• The results of encoding are sent from the unit to your provider's streaming server, and the viewers access the streaming server to view the live content.  • To some extent you can select such things as the number of clients that can view the content and delivery transfer rate because it is possible to obtain high network bandwidth, depending on your subscription with the provider. • There is a cost for use of a streaming server. • Obtain a subscription with a provider that provides a server that supports the RealMedia streaming file format (.rm).
Using this unit as the server	• The results of encoding are sent to the streaming server in the unit, and the viewers access this unit to view the live contents.  • Since viewers directly access this unit, the number of viewing clients and the data transfer rates are limited by the network linking this unit to the viewers. • There is no cost for a streaming server.

Using VOD

Transmission method	Features
Using your provider's streaming server	• Export a VOD file created on the unit, and place it on your provider's streaming server. Viewers access the streaming server and view the content. 
Using this unit as the server	• Viewers access the VOD files stored on the unit's internal streaming server and view the content. 

Caution

You cannot encode the program output into a format other than Real Media streaming file format (.rm). If you want to encode into another format, you need to input the program output of this unit into another encoder and encode it.

Configuring the Network Settings

With the network environment set up, make the network settings for this unit. Ask your network administrator for further information about your network.

1 Connect a network cable to the NETWORK connector of this unit.

Caution

In order to meet EMC standards, use an STP (shielded twisted pair) type Ethernet cable.

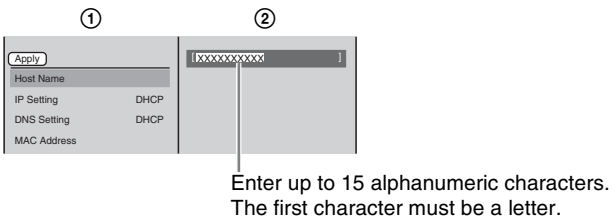
2 Press the MENU button.

3 In the top menu, select [Network].

4 Set the following items in the submenu.

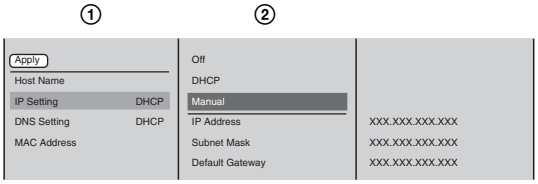
Entering the host name

① Select [Host Name], and confirm; ② enter the host name in the input box, and confirm.



Setting the IP address

① Select [IP Setting], and confirm; ② make a selection, and confirm.



[Off]: When not setting an IP address
[DHCP]: When the address is automatically obtained from the DHCP server
[Manual]: When inputting the address manually

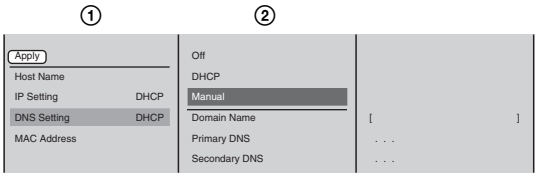
When [Manual] is selected, enter the following items, and confirm.
Input the default gateway if required.
[IP Address]: Enter the IP address.
[Subnet Mask]: Enter the subnet mask.
[Default Gateway]: Enter the default gateway address.

Caution

Because the unit uses "172.27.72.0 netmask 255.255.255.0" internally, the unit will not operate correctly if settings are configured to include "172.27.72.0 netmask 255.255.255.0."

Making DNS settings

① Select [DNS Setting], and confirm; ② make a selection, and confirm.



[Off]: When not setting an IP address
[DHCP]: When the address is automatically obtained from the DHCP server
[Manual]: When inputting the address manually

When [Manual] is selected, enter the following items, and confirm.
[Domain Name]: Enter the domain name. Enter from 3 to 63 alphanumeric characters. The first character must be a letter.
[Primary DNS]: Enter the address of the primary DNS server.
[Secondary DNS]: Enter the address of the secondary DNS server (Enter as required).

5 Select [Apply], and confirm.

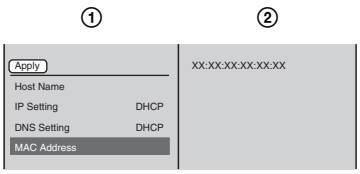
A network setting update message appears.

Note

If the network settings are not changed, [Apply] is grayed out, and cannot be selected.

Displaying the MAC address

Select [MAC Address] to display the MAC address of the internal network card.



6 Press the MENU button to close the menu.

Setting Live Streaming Transmission

Setting the menu

These settings make it possible for the program output from this unit to be encoded in Real Media streaming file format (.rm), and transmitted by live streaming.
You can also configure settings to save the contents of live streaming onto the unit's internal hard disk as files for VOD (Video On Demand) while the contents are being transmitted.

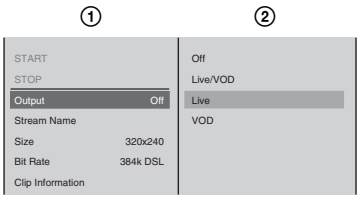
1 Press the MENU button.

2 In the top menu, select [Streaming].

3 Set the following items in the submenu.

Selecting live transmission

① Select [Output], and confirm; ② select [Live] or [Live/VOD], and confirm.
Select [Live/VOD] when saving the VOD file onto the internal hard disk while transmitting live.

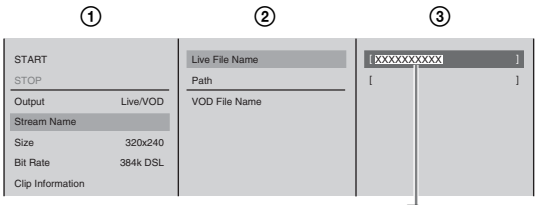


Caution

- When the above operation is done, the PGM viewer on the operation screen becomes smaller.
- Even if left set to [Live] or [Live/VOD], when this unit is powered on again, the setting returns to [Off].
- If VOD file creation stops after the internal hard disk becomes full while transmitting live and creating the VOD file at the same time, the live transmission will also stop.

Entering the file name

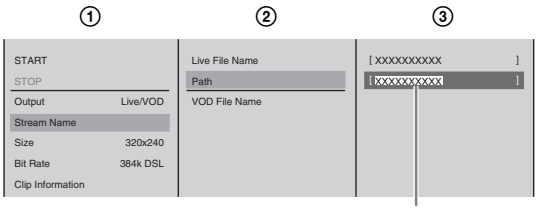
① Select [Stream Name] and confirm; ② select [Live File Name], and confirm; ③ enter the file name in the input box, and confirm.



Setting the streaming output path

If multiple encoders connect to the streaming server, enter the path for identification. Set the path as necessary.

① Select [Stream Name], and confirm; ② select [Path], and confirm; ③ enter the path following the default mount point (/broadcast/) in the input box and confirm.



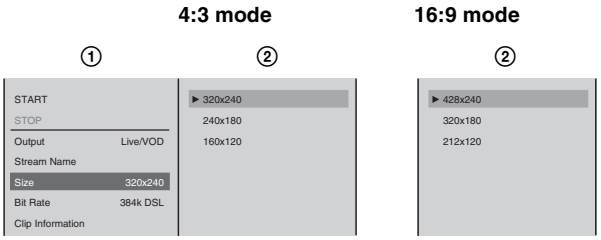
Example:
If “anycast/test” was entered, access and view material by entering rtsp://xxx.xxx.xxx.xxx/broadcast/anycast/test/xxx.rm on a client.

Caution

You cannot set paths for VOD files.

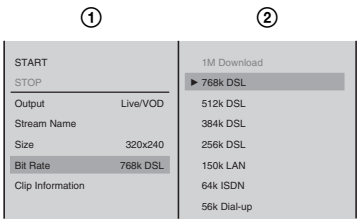
Setting the video size

① Select [Size], and confirm; ② select the size of video to be output, and confirm.



Setting the transfer rate

① Select [Bit Rate], and confirm; ② select the transfer rate, and confirm.



Notes

- The actual transfer rates are as follows.

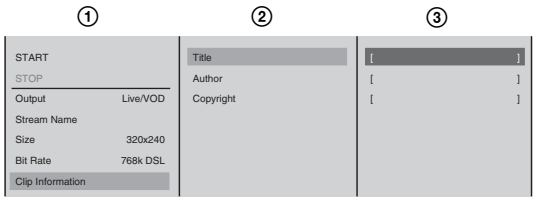
1 M Download	→ 1000 kbps	(Video: 903.5 kbps Audio: 96.5 kbps)
768 k DSL	→ 700 kbps	(Video: 603.5 kbps Audio: 96.5 kbps)
512 k DSL	→ 450 kbps	(Video: 353.5 kbps Audio: 96.5 kbps)
384 k DSL	→ 350 kbps	(Video: 285.9 kbps Audio: 64.1 kbps)
256 k DSL	→ 225 kbps	(Video: 180.9 kbps Audio: 44.1 kbps)
150 k LAN	→ 150 kbps	(Video: 118.0 kbps Audio: 32.0 kbps)
64 k ISDN	→ 50 kbps	(Video: 39.0 kbps Audio: 11.0 kbps)
56 k Dial-up	→ 34 kbps	(Video: 26.0 kbps Audio: 8.0 kbps)

- The following are recommended for combinations of video size and transfer rate:

320 × 240 (428 × 240)	→	384 k DSL
240 × 180 (320 × 180)	→	256 k DSL
160 × 120 (212 × 120)	→	150 k DSL

Entering content information

① Select [Clip Information], and confirm; ② select the item to set, and confirm; ③ enter the information in the input box, and confirm.



The items you can set are as follows.
[Title]: Enter a title of not more than 50 characters.
[Author]: Enter an author name of not more than 100 characters.
[Copyright]: Enter an owner name of not more than 100 characters.

4 Press the MENU button to close the menu.

Configuring the settings for connecting to a server

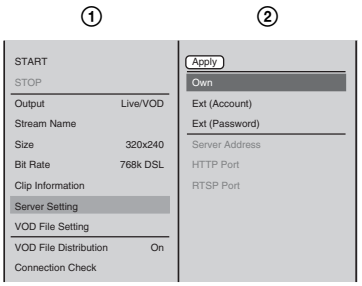
When using the internal server

Use the internal server of the unit for streaming transmission.

1 Press the MENU button.

2 Select [Streaming] in the top menu.

3 ① Select [Server Setting], and confirm; ② select [Own], and confirm.



4 Select [Apply] and confirm.

When using an external server

Configure the settings to enable a connection to be established to the external server (Helix server of RealNetworks, inc.) to be used for streaming transmission. There are two methods: Account-based login and password-only login.

For the following procedure, select [Ext (Account)] for account-based login or select [Ext (Password)] for password-only login. Then, contact the server administrator for details on the information to set (IP address, port, listen address, port range, protocol, user name, and password).

Note

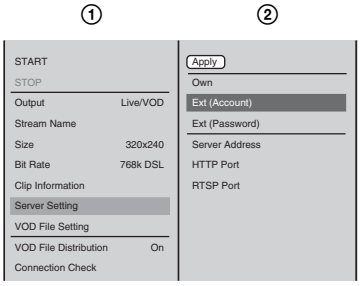
"Helix Administrator" mentioned in the following procedure refers to the configuration and administration screen for Helix Server.

1 Press the MENU button.

2 Select [Streaming] in the top menu.

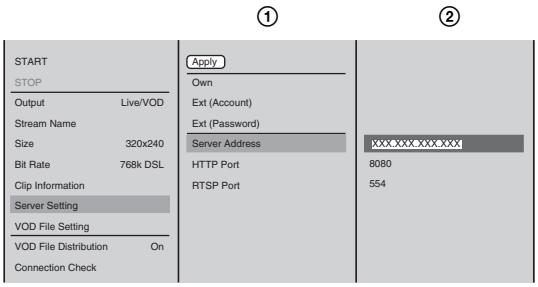
3 ① Select [Server Setting], and confirm; ② select [Ext (Account)] or [Ext (Password)], and confirm.

The subsequent setting items differ for [Ext (Account)] and [Ext (Password)].



It is now possible to configure [Server Address] and the items below.

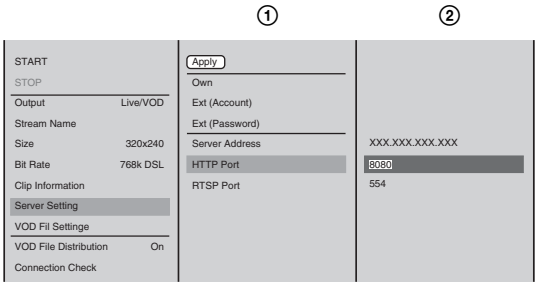
4 ① Select [Server Address], and confirm; ② enter the IP address of the external server in the input box, and confirm.



Note

For [Ext (Password)], enter the IP address of the unit (which is seen from the external server when network address translation [NAT] is used) in [Transmitter Address] of [Receiver] in the [Broadcast-Distribution] settings of Helix Administrator.

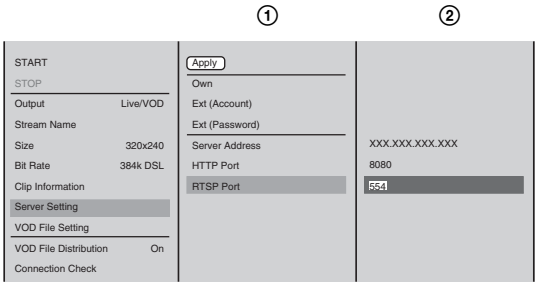
5 ① Select [HTTP Port], and confirm; ② enter the HTTP port set on the external server in the input box, and confirm.



Note

Enter the HTTP port in [Ports] in the [Server Setup] settings of Helix Administrator.

6 ① Select [RTSP Port], and confirm; ② enter the RTSP port set on the external server in the input box, and confirm.



Note

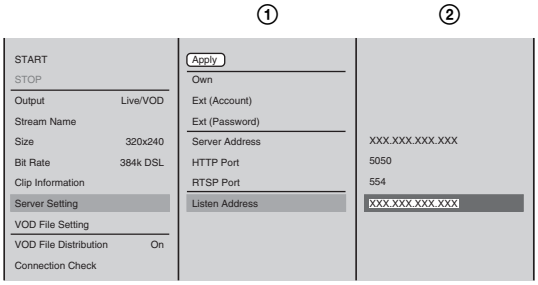
Enter the RTSP port in [Ports] in the [Server Setup] settings of Helix Administrator.

7 For [Ext (Account)], ① select [Listen Address], and confirm; ② enter the IP address of the unit which is seen from the external server when network

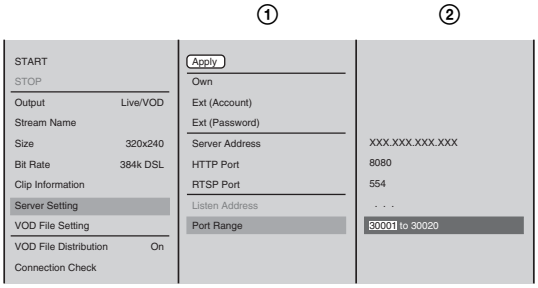
address translation [NAT] is used, and confirm.

Note

There is no need to enter an IP address if network address translation will not be used.



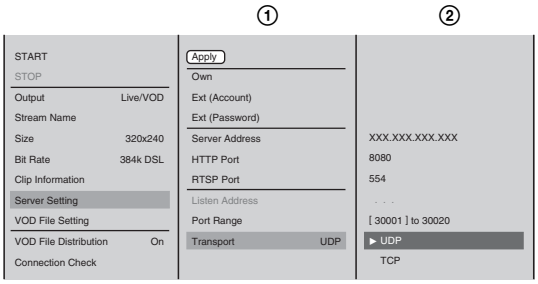
8 For [Ext (Password)], ① select [Port Range], and confirm; ② enter the port range set on the external server in the input box, and confirm.



Notes

- Enter the same port range as that in [Receiver] of the [Broadcast-Distribution] settings of Helix Administrator. Also, make sure the firewall and other settings are configured so that communication between the unit and Helix Administrator is not rejected.
- For [Ext (Account)], there is no need to configure the port range setting on the unit, but match the firewall and other settings to the port range of [RealNetworks Encoding] in the [Broadcasting] settings of the Helix Administrator with which the unit will communicate.

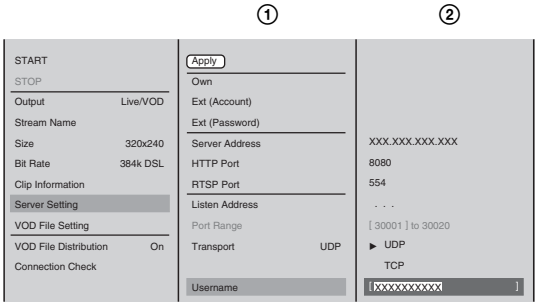
9 ① Select [Transport], and confirm; ② select the protocol to use for communication with the external server, and confirm.



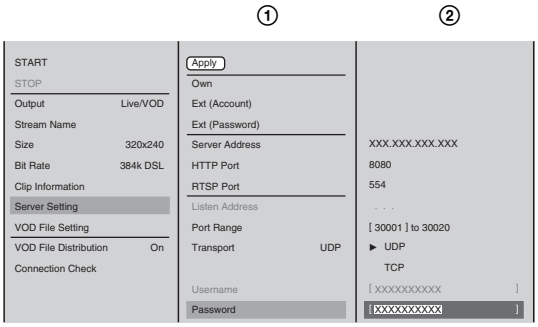
Note

For [Ext (Password)], set the same protocol as that set in [Receiver] in the [Broadcast-Distribution] settings of Helix Administrator.
UDP communicates with “udp/unicast.” Also check other settings such as the firewall settings.

10 For [Ext (Account)], ① select [Username], and confirm; ② enter the user name to use for connecting to the external server in the input box, and confirm.



11 ① Select [Password], and confirm; ② enter the password to use for connecting to the external server in the input box, and confirm.



Note

Set the same password as that set in [Receiver] in the [Broadcast-Distribution] settings of Helix Administrator.

12 Select [Apply], and confirm if you modified any settings in Steps 3, 4, 5, and 6.

This operation is not required if you only modified settings in Steps 7, 8, 9, 10, and 11.

13 Press the MENU button to close the menu.

Checking connections to other devices

You can check whether it is possible to connect to the default gateway set for [IP Setting] of [Network] in the top menu, the external server set for [Server Setting] of [Streaming] in the top menu, or another computer.

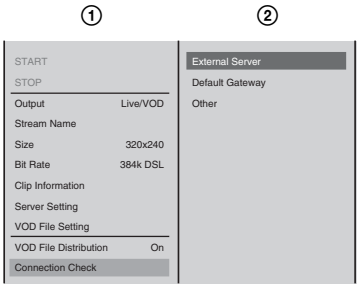
1 Press the MENU button.

2 Select [Streaming] in the top menu.

3 Check the connection to each computer in the submenu.

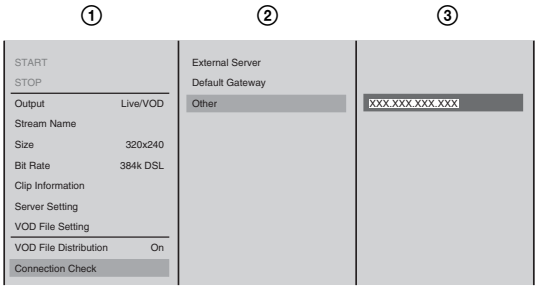
For the default gateway or external server

① Select [Connection Check], and confirm; ② select the device for which to check the connection from the list, and confirm.

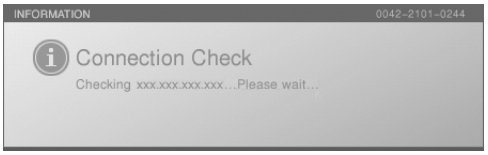


For a device other than the above

① Select [Connection Check], and confirm; ② select [Other] and confirm; ③ enter the IP address of the device for which to check the connection in the input box, and confirm.



The following message appears and the communication check begins.



A message notifies you whether the connection succeeded or failed.

4 Press the ENTER button.

5 Press the MENU button to close the menu.

Saving Live Streaming Transmissions as Files for VOD

You can save live streaming transmissions onto the unit's internal hard disk as files for VOD.

Note

You can confirm the list of saved files under [Rename] of [File Manager] or [Export VOD File].

Configuring settings for VOD file creation

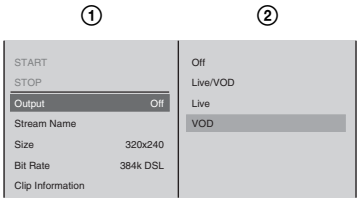
1 Press the MENU button.

2 Select [Streaming] in the top menu.

3 ① Select [Output], and confirm; ② select [VOD] or [Live/VOD], and confirm.

Caution

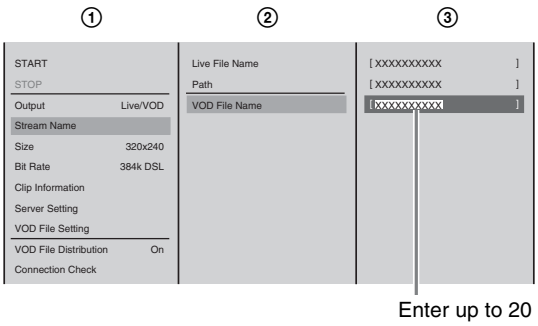
If live transmission stops due to an error on the server while creating a VOD file and transmitting live at the same time, VOD file creation will also stop.



4 Configure the settings for creating a VOD file.

Entering the file name

① Select [Stream Name], and confirm; ② select [VOD File Name], and confirm; ③ enter the file name in the input box, and confirm.



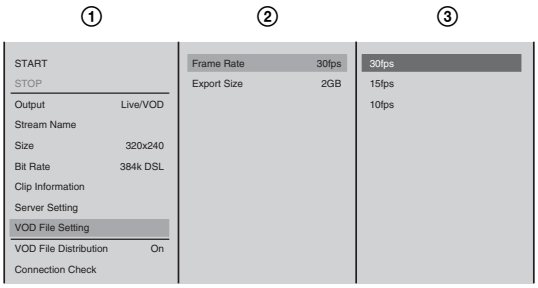
Selecting the video size, transfer rate, and content information

Configuration procedures are the same as those for live transmission.

For details, see "Setting the video size" (page 252), "Setting the transfer rate" (page 252), and "Entering content information" (page 253) under step 3 of "Setting the menu."

Selecting the frame rate

① Select [VOD File Setting], and confirm; ② select [Frame Rate], and confirm; ③ select a frame rate, and confirm.



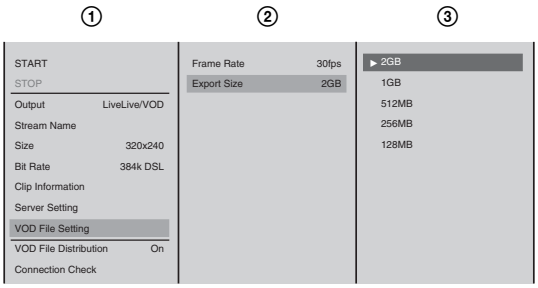
Caution

If [Live/VOD] is selected for [Output], you cannot configure the frame rate.

Selecting the file size

When recording for long periods of time, select a size for the created files to be broken up to.

① Select [VOD File Setting], and confirm; ② select [Export Size], and confirm; ③ select a size for each segment, and confirm.



The following is a guide for the lengths of time the recording will be broken up to.

Example: When [Size] is set to “320×240,” [Bit Rate] is set to “1M Download,” and [Frame Rate] is set to “30 fps.”

File Size	Length
2 GB	4 hours
1 GB	2 hours
512 MB	1 hour
256 MB	30 minutes
128 MB	20 minutes

* The lengths of time vary depending on the video and settings. Use this only as a guide.

Note

When the size of a file reaches the size you specify, that file completes and file creation continues with a new file. A number (starting with 1 and increasing with each successive file) follows the file name you specify.

Example: live1.rmvb

5 Press the MENU button to close the menu.

Transmitting a stored VOD file

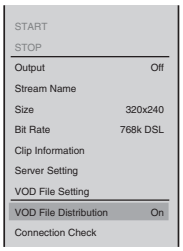
Start the unit's internal server to transmit VOD files stored on the unit's internal hard disk.

1 Press the MENU button.

2 Select [Streaming] in the top menu.

3 Select [VOD File Distribution], and confirm.

The setting turns on or off each time it is selected.



The VOD file is transmitted.

Note

Viewers can view the content of the VOD file by accessing "rtsp://the unit's address/VOD/the specified file name.rmvb" from Real Player.

While the internal server is running, the VOD icon appears as follows. The icon is grayed out while the internal server is running.

VOD icon

Caution

To close accessibility to stored content, delete or rename that content's file.

Starting and Stopping Streaming

Caution

If you import a graphics file while streaming is in progress, the image will distort. Be aware of this especially when creating VOD files.

Starting streaming

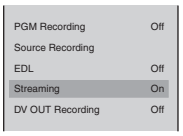
1 Make the settings described in "Configuring the Network Settings" (page 248) and "Setting Live Streaming Transmission" (page 251).

2 Press the MENU button.

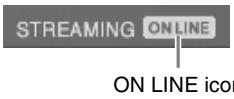
3 In the top menu, select [ON LINE Manager].

4 Select [Steaming] to set it [On], and confirm.

The setting turns on or off each time it is selected.

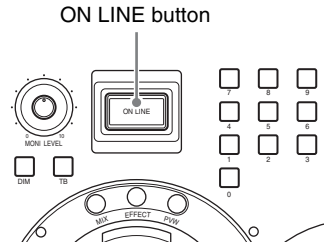


When [Streaming] is set to [On], the ON LINE icon for streaming appears.



5 Press the ON LINE button.

The ON LINE button lights red, and a transmission starts.



Caution

Be sure to have a client computer available to check that a signal is being transmitted, using Real Player.

Note

You can also activate all of the reserved functions for the ON LINE button simultaneously. For details, see “Activating Each Function Simultaneously With the ON LINE Button” (page 266).

Note

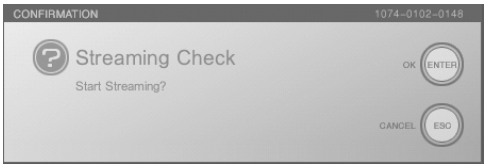
You can also start streaming via the top menu.

1 Press the MENU button.

2 Select [Streaming] in the top menu.

3 Select [START], and confirm.

The following confirmation message appears.



4 Press the ENTER button.

Streaming starts.

Stopping streaming

1 Press the ON LINE button.

A confirmation message appears.

2 Press the ENTER button.

The ON LINE button dims, and transmission ends.

Note

If you press the ON LINE button while holding down the ESC button in step 1, transmission stops without a confirmation message being displayed.

Note

You can also end streaming via the top menu.

1 Press the MENU button.

2 Select [Streaming] in the top menu.

3 Select [STOP], and confirm.

Streaming ends.

Settings Required for Viewing Streaming

This section describes how to configure settings on the computer for viewing material streamed from this unit. Perform these settings on network-ready computers.

Downloading Real Player

Download Real Player from the Web site of RealNetworks, Inc.

Viewing streamed material from the unit

1 Start Real Player.

2 Click [Open] on the [File] menu.

3 Follow the procedure below to enter an URL.

When using the rtsp protocol for access

rtsp://Server Address[:Port]/broadcast/[Stream Path]/File Name.rm

* If port number 554 is to be used, you can omit [:Port] after the server address.

When using the http protocol for access

http://Server Address[:Port]/ramgen/broadcast/[Stream Path]/File Name.rm

* If port number 80 is to be used, you can omit [:Port] after the server address.

Note

For “Server Address,” “Stream Path,” and “File Name,” enter the character strings set on the unit.

4 Press the Enter key.

Note

Select [Preferences] on the [Tools] menu in Real Player, and configure your connection settings in accordance with your network environment.

Guidelines for number of Real Player connections depending on transfer rate (for Own)

The following table shows the number of Real Player connections possible for each transfer rate.
The figures are guidelines only, and depend on the operating conditions of the network.

Transfer rate	768k/512k	384k/256k	150k/64k/56k
Number of Real Player connections	5	10	20

When video/audio deteriorates or stops during streaming

Streaming video/audio deteriorates or stops primarily due to network traffic, the player software or settings, or insufficient processing power in the computer running the player software.
If such problems occur, check the above.

When the message “Please wait for a while and reconnect.” appears (for Own)

If Real Player connects to the unit when the ON LINE button of [Live] or [Live/VOD] of [Output] in the internal server settings (Own) is not pressed, the following “Please wait for a while and reconnect.” standby clip is played. The standby clip is not played when the external server (Ext) settings are configured.

Placing Streaming Links in a Web Site

This section describes how to offer streaming material to viewers using a Web page.

Perform these settings on network-ready computers.

1 Open a text editor such as Notepad, and enter the URL for the streaming content in Real Media format as shown below.
rtsp://IP address of the unit or the external server (Helix Server)/broadcast (path)/specified filename.rm
Example: rtsp://xxx.xxx.xxx.xxx/broadcast/live.rm

2 Save the file with the extension ".ram."

Note

This file becomes the metafile of the Real Media format.

3 Upload to the Web server the metafile saved in step 2.

4 Insert a link to the metafile in the Web page on which you want to publish the stream.

Activating Each Function Simultaneously With the ON LINE Button

You can activate all five of the reserved functions for the ON LINE button simultaneously.

Preparation

See the following sections to prepare each function and allow them to be activated with the ON LINE button.

- For [PGM Recording] and [Source Recording], see “Preparing for Recording to an External Hard Disk” (page 174).
- For [EDL], see “Preparing for EDL creation” (page 230).
- For [Streaming], see “Setting Live Streaming Transmission” (page 251).
- For [DV OUT Recording], see “Operating the Unit to Record Program Outputs to a VCR” (page 195) and “Configuring settings for VOD file creation” (page 259).

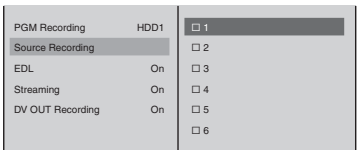
Activating the Functions With the ON LINE Button

1 Perform preparations for each of the functions.

2 Press the MENU button.

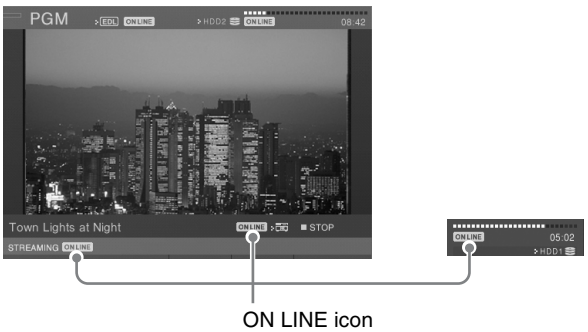
3 In the top menu, select [ON LINE Manager].

4 Confirm that the functions you want to activate are selected or set to [On].

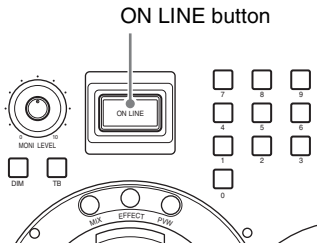


5 Press the MENU button to close the menu.

The ON LINE icon for activation appears.



6 Press the ON LINE button.

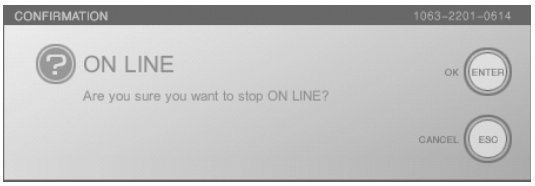


The ON LINE icon disappears, and the various status displays change.

Deactivating the Functions With the ON LINE Button

1 Press the ON LINE button.

The following confirmation message appears.



The ON LINE icon flashes while this message is displayed.

Note

If you press the ON LINE button while holding down the ESC button, each function deactivates without a confirmation message being displayed.

2 Press the ENTER button.

Each of the functions deactivate, and the ON LINE icon appears.

Appendix

Maintenance

This section describes how to check the operating software version, and upgrade.

Checking the Operating Software Version

You can check the version number of the operating software and hardware constituting this unit and the interfaces modules installed in this unit, as well as the unit's serial number.

1 Press the MENU button.

2 In the top menu, select [Version], and then check the displayed version information.

The items you can check are as follows.

Main Application: You can check the version number of the operating software.
Text Typing Tool: You can check the version number of the Text Typing Tool software.
Effect Board: You can check the firmware and hardware version of the effects board.
Audio Board: You can check the firmware and hardware version of the audio board.
Interface Modules 1 to 3: You can check the firmware and hardware version of the rear panel interface modules.
Panel: You can check the firmware version of the front panel.
Serial No. XXXXX

Caution

The interface module version only appears when the module is installed.

3 Press the MENU button to close the menu.

Upgrading the Operating Software

This section describes how to upgrade when there are improvements to the operating software and hardware firmware.

Caution

When the external hard disk is connected to the unit, always disconnect it before upgrading the operating software.

Information on upgrades

Information on software upgrades is available from the Anycast Station portal site operated by Sony.
The following site also provides links to the portal site and information on upgrades.
https://servicesplus.us.sony.biz/SoftwarePlusSerch.aspx (for customers in U.S.A.)
https://www.sonybiz.net/anycast (for customers in Europe, Middle East and Africa)
https://www.ecspert.sony.biz/ecsite/ (for the other customers)
Download to a “Memory Stick” or USB flash memory.

Upgrade procedure

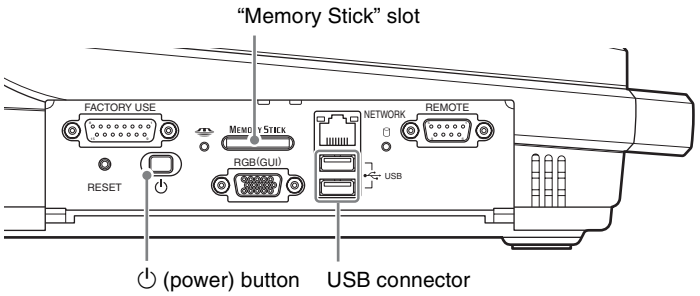
1 Insert a “Memory Stick” or USB flash memory holding the installation program in the “Memory Stick” slot or USB connector on the side panel.

Caution

Before carrying out the following operation, plug the device into the “Memory Stick” slot or USB connector used for installation only, and remove other devices.

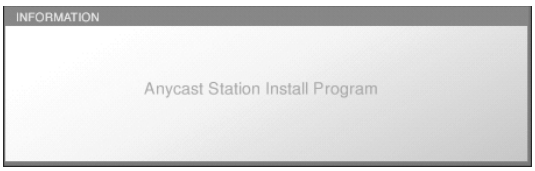
2 Press the ⏻ (power) button on the side panel.

This powers on the unit.



3 After the startup screen, press the F10 (Fn+0) key on the keyboard while the message is displayed indicating that function key input is possible.

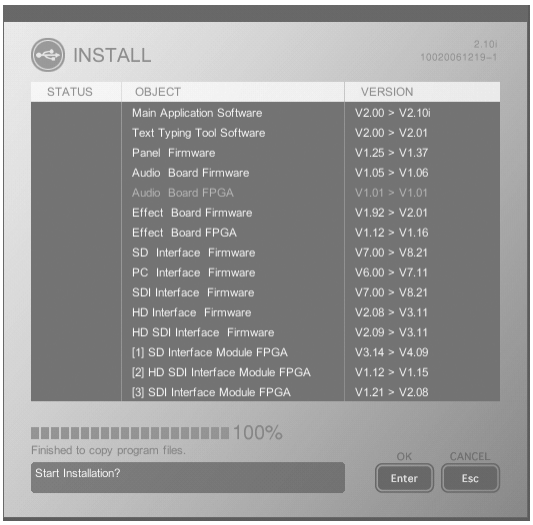
The following screen appears.



The “INSTALL” screen appears after a few moments, and “C:Copying Program files...” appears.

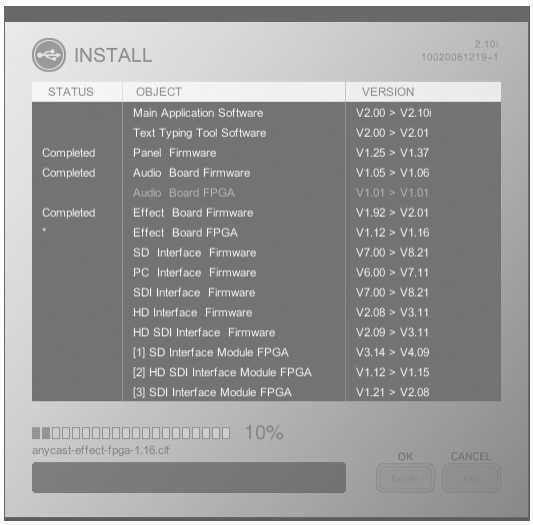
Notes

- If the same version is already installed, this object is grayed out, and excluded from the upgrade.
- The “C:” in “C: Copying Program files...” refers to the “Memory Stick,” and “D:” and “E:” refer respectively to the upper and lower ports to which the USB flash memory is connected.



4 Check that the progress indication has reached 100%, and press the keyboard ENTER key.

The installation starts.
Installation does not begin if you click the Enter button on the front panel.



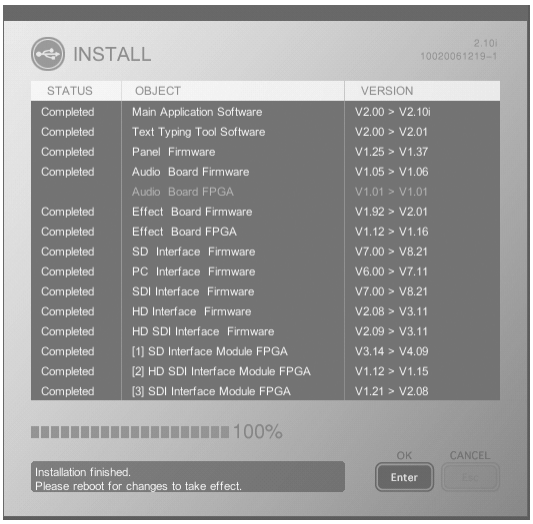
Note

In the “STATUS” column, an asterisk (*) blinks while the operating software is being installed. When installation ends successfully, “Completed” is displayed, and if installation has failed, “Error” is displayed instead.

Caution

Do not turn the unit off or remove a “Memory Stick” or USB flash memory from the unit while data is being read or written; otherwise the file may be destroyed.

When the installation completes, the following message appears.



5 Check the installation completed message, then press the keyboard ENTER key.

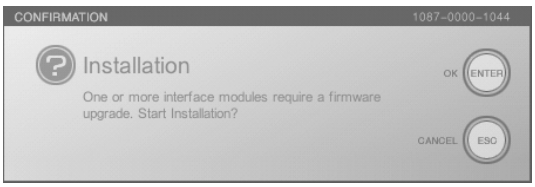
This powers off the unit.
When you next power on the unit, the operating software starts.

Caution

- During the installation, if the "STATUS" indication shows "Error," repeat the installation process from the beginning. If this does not clear the problem, consult your dealer or your Sony service representative.
- Users who purchased the optional BKAW-550/BKAW-560/BKAW-570/BKAW-580/BKAW-590 should install the optional equipment and then perform the same version upgrade.

When an interface module with older software is installed

The software versions of installed interface modules are automatically compared to that of the unit during startup, and if there is an interface module running on older software, the following message appears.



Press the enter button, and perform the procedure from step 3 (after pressing the F10 (Fn+0) key) of "Upgrade procedure" (page 270). After performing this procedure, the software versions of the interface module and unit will match.

Menu Items

Top Menu

Main heading	Subheading 1	Subheading 2	Description	Default
Video Effect	Effect Pattern	User Program 1 to 6	Names of registered video effect snapshots are displayed.	–
		1080 (mix)		1080 (mix)
		1100 (picture-in-picture)		
		0001 to 0022 (wipe)		
	Transition Time			20F
	Edge	Off		Off
		On		–
		Width		5
		Softness		20%
		Color Matte		–
		Lum		100%
		Sat		0%
		Hue		0°
	Key Type	Luminance Key		Luminance Key
		Chroma Key		
	Key Adjust	Clip		0%
		Gain		50
		Hue	Can only be configured for Chroma Key.	0°
		Density		100%
		Key Invert	Off/On	Off
		Color Cancel	Off/On Can only be configured for Chroma Key.	Off
	Auto Chroma Key	Size	• Can only be configured for Chroma Key. • X/Y can also be specified with the positioner.	50
		Location		–
		X/Y		X=0, Y=0
	Crop	Off		Off
		On		–
		Top		270
		Left		-350
		Right		350
		Bottom		-270

Main heading	Subheading 1	Subheading 2	Description	Default
Video Effect	Size	Large		Medium
		Medium		
		Small		
	Location	X/Y	This can also be specified with the positioner.	X=200, Y=-150
	Preset	User Program 1 to 6	Names of registered video effect snapshots are displayed.	–
	Delete	User Program 1 to 6	Names of registered video effect snapshots are displayed.	–
	Data Name	User Program 1 to 6	Names of registered video effect snapshots are displayed.	–
DSK	IN Trans. Time			20F
	OUT Trans. Time			0F
	Key Adjust	Clip		0%
		Gain		50
		Density		100%
		Key Invert	Off/On	Off
	Crop	Off		Off
		On		–
		Top		270
		Left		-350
		Right		350
		Bottom		-270
Fade To Black	Transition Time			20F
Logo	Logo Source	None	A list of the imported file names can be displayed from [Import CG File] of [File Manager].	–
	Clip			0%
	Gain			50
	Density			100%
	Location	X/Y	This can also be specified with the positioner.	X=290, Y=210
File Manager	Delete	HDD1 to 3	• You can select from files on the external hard disk drives. • File names are listed below “All.”	–
		EDL File	File names are listed below “All.”	–
		VOD File	File names are listed below “All.”	–
		CG File	File names are listed below “All.”	–
		Logo File	File names are listed below “All.”	–
	Disconnect	All/HDD1 to 3	You can select from the external hard disk drives.	–
	Recover	HDD1 to 3	You can select from the external hard disk drives.	–

Main heading	Subheading 1	Subheading 2	Description	Default
File Manager	Rename	HDD1 to 3	You can select from files on the external hard disk drives.	–
		VOD File		–
	Convert AVI	HDD1 to 3	File names are listed below “All.”	–
	Export EDL Type1	Memory Stick	File names are listed below “All.”	–
		USB Flash Memory 1		–
		USB Flash Memory 2		–
	Export EDL Type2	Memory Stick	File names are listed below “All.”	–
		USB Flash Memory 1		–
		USB Flash Memory 2		–
	Export VOD File	Memory Stick	File names are listed below “All.”	–
		USB Flash Memory 1		–
		USB Flash Memory 2		–
	Export Job	Memory Stick	File names are listed below “All.”	–
		USB Flash Memory 1		–
		USB Flash Memory 2		–
	Import Job	Memory Stick	File names are listed below “All.”	–
		USB Flash Memory 1		–
		USB Flash Memory 2		–
	Import CG File	Memory Stick	File names are listed below “All.”	–
		USB Flash Memory 1		–
		USB Flash Memory 2		–
	Import Logo File	Memory Stick	File names are listed below “All.”	–
		USB Flash Memory 1		–
		USB Flash Memory 2		–
	Format	HDD1 to 3	You can select from the external hard disk drives.	–
		Full		–
		270 GB		–
		140 GB		–
		90 GB		–
		Memory Stick		–
		USB Flash Memory 1		–
		USB Flash Memory 2		–
	Local Disk Remain			–
Job	Load	File names are listed below “Default.”		–
	Save			–
	Delete	File names are listed below “All.”		–

Main heading	Subheading 1	Subheading 2	Description	Default
ON LINE Manager	PGM Recording	Off	• Does not appear in 16:9 HD mode. • The HDD name and slot number do not appear when there is no interface module capable of recording.	Off
		HDD1 to 3 and slot number		
	Source Recording	Off/On for 1 to 6		Off
	EDL	Off		Off
		On		
		File Name	Enter up to 20 alphanumeric characters.	Anycast.edl
	Streaming	Off/On		Off
	DV OUT Recording	Off/On		Off
Streaming	START			–
	STOP			–
	Output	Off		Off
		Live/VOD		
		Live		
		VOD		
	Stream Name	Live File Name	Does not appear when [Output] is set to [VOD].	–
		Path		–
		VOD File Name	Does not appear when [Output] is set to [Live].	–
	Size	320×240 (428×240)		320×240 (428×240)
		240×180 (320×180)		
		160×120 (212×120)		
	Bit Rate	1M Download	Cannot be selected when [Output] is set to [Live] or [Live/VOD].	384k DSL
		768k DSL		
		512k DSL		
		384k DSL		
		256k DSL		
		150k LAN		
		64k ISDN		
		56k Dial-up		
	Clip Information	Title		–
		Author		–
		Copyright		–

Main heading	Subheading 1	Subheading 2		Description	Default
Streaming	Server Setting	Own			Own
		Ext (Account)			–
		Ext (Password)			–
		Server Address		The remaining settings cannot be configured when [Server Setting] is set to [Own].	–
		HTTP Port			80
		RTSP Port			554
		Listen Address		Cannot be configured when [Server Setting] is set to [Ext (Password)].	–
		Port Range		Cannot be configured when [Server Setting] is set to [Ext (Account)].	30001 to 30020
		Transport	UDP		UDP
			TCP		–
		Username		Cannot be configured when [Server Setting] is set to [Ext (Password)].	–
		Password			–
	VOD File Setting	Frame Rate		Does not appear when [Output] is set to [Live].	15 fps
			30 fps		
			15 fps		
			10 fps		
		Export Size			2 GB
			2 GB		
			1 GB		
			512 MB		
			256 MB		
			128 MB		
	VOD File Distribution	Off/On			Off
	Connection Check	External Server			–
		Default Gateway			–
		Other			–
Network	Host Name				anycast
	IP Setting	Off			–
		DHCP			–
		Manual			–
		IP Address			–
		Subnet Mask			–
		Default Gateway			–

Main heading	Subheading 1	Subheading 2	Description	Default
Network	DNS Setting	Off		–
		DHCP		–
		Manual		–
		Domain Name		–
		Primary DNS		–
		Secondary DNS		–
	MAC Address			–
Video Input Assign	Source Name		Enter up to 20 characters.	–
	Input	No Assign		–
		SLOT 1 to 2 (IN1 to 2)	The setting display differs depending on the interface module installed.	–
		Composite		
		S-Video		
		DV		
		SLOT3 (IN1 to 2)		–
		RGB		–
	Source Aspect	4:3		4:3
		16:9 SQ		
	Control	Off		Off
		VISCA 1 to 7		
		AV/C Player	Enabled when DV signals are assigned.	
Audio Input Assign	Source Name		Enter up to 20 characters.	–
	Input (L)	MIC/LINE (1 to 6)	The setting display differs depending on the interface module installed.	–
		LINE (7 to 8)		–
		SLOT (1 to 3)		–
	Input (R)	MIC/LINE (1 to 6)	The setting display differs depending on the interface module installed.	–
		LINE (7 to 8)		–
		SLOT (1 to 3)		–
	Link to Video	Off/On		Off
Video Output	PGM OUT	NTSC/60 Hz		NTSC/60 Hz
		PAL/50 Hz		
	PGM OUT Aspect	4:3		4:3
		16:9 SD		
		16:9 HD	Appears when an HD video or HD serial digital interface module is installed.	
	PGM OUT Level	Luminance Offset		0 IRE
		0 IRE		
		7.5 IRE		

Main heading	Subheading 1	Subheading 2		Description	Default
Video Output	DV OUT	PGM Output			Off
			Off		
			SLOT 1 to 3		
		Audio Mode			Fs48 kHz (4ch)
			Fs32 kHz (4ch)		
			Fs48 kHz (2ch)		
	RGB OUT	XGA (1024×768)			SXGA (1280×1024) 60 Hz
			60 Hz		
			75 Hz		
		SXGA (1280×1024) 60 Hz			
		WXGA (1280×768)			
			60 Hz		
			75 Hz		
		Video RGB			
	HD OUT	1080i			1080i
		720p			
	Add TC	SDI			Off
					–
	Add Aspect ID	Off/On			Off
	Filter Mode	SD Video			Normal
			Soft		
			Normal		
			Sharp		
		RGB			Sharp
			Soft		
			Sharp		
Audio Output	PGM OUT Delay				2F
	AUX1 OUT Delay				2F
	AUX1 OUT Level				0dB
	AUX2 OUT Delay				2F
	AUX2 OUT Level				0dB
	MIX OUT Delay				2F
	MIX OUT Level				0dB

Main heading	Subheading 1	Subheading 2		Description	Default
Audio MIC/ LINE Level	MIC/LINE 1 to 6	High (+4 dB)			Middle (-20 dB)
		Middle (-20 dB)			
		Low (-44 dB)			
Video Utility	Remote Switching	Off			Off
		PGM			–
		NEXT			–
		Trigger			Low Level
			Low Level		
			High Level		
	VISCA Power Control	Off/On			On
Audio Utility	Audio Monitor	PGM			PGM
		AUX1 to 2			–
		MIX			–
	OSC	OSC Freq.			Off
			Off		
			100 Hz		
			440 Hz		
			1 kHz		
			10 kHz		
		OUT Level			-20 dBFS
		OSC OUT			–
			PGM		–
			AUX1 to 2		–
			MIX		–
	TB	TB OUT			–
			PGM		–
			AUX1 to 2		–
			MIX		–
		TB OUT Level			-20 dB
System	Date/Time				–
	Time Zone				–
	System TC	Local Time		Uses the time set in [Date/Time].	Local Time
		User Preset			
		Timecode			

Main heading	Subheading 1	Subheading 2	Description	Default
System	Language	Chinese (Simplified)		English (US)
		Chinese (Traditional)		
		English (UK)		
		English (US)		
		French		
		German		
		Italian		
		Japanese		
		Korean		
		Portuguese		
		Spanish		
Display	LCD Backlight			–
	Viewer Priority	PGM		PGM
		PVW		
	File TC	Off/On		Off
	English Panel	Off/On		Off
Version	Software	Main Application		–
		Text Typing Tool		–
	Hardware	Effect Board		–
		Audio Board		–
		Interface Module	The setting display differs depending on the interface module installed.	–
		Panel		–
		Serial No.		–

ACCESS Menu

Main heading	Subheading	Description	Default
Luminance Level			100%
Luminance Offset	0 IRE		0 IRE
	7.5 IRE		–
Chroma Level			100%
Hue			0°
Phase			16
Auto Gain Control	Off/On		On
Wide Zoom	Off/On		On
Resize	H		100%
	V		100%
Reposition	H		0
	V		0
Dynamic Rounding	Off/On		On
Input Trim			0 dB

Main heading	Subheading	Description	Default
Filter	Off		Off
	High Cut (8kHz)		–
	Low Cut (100Hz)		–
EQ	Off		Off
	On		–
	High Freq.		4.75 khz
	High Level		0 dB
	Middle Freq.		1.28 kHz
	Middle Level		0 dB
	Low Freq.		114.10 Hz
	Low Level		0 dB
Limiter/Compressor	Off		Off
	Limiter (100:1)		–
	Compressor (2:1)		–
	Threshold		-20dB
Pan			CNT (Center)
PGM OUT	Off/On		On
AUX1 OUT	Off		Off
	Pre-Fader		–
	Post-Fader		–
	Send Level		0 dB
AUX2 OUT	Off		Off
	Pre-Fader		–
	Post-Fader		–
	Send Level		0 dB
MIX OUT	Off/On		On

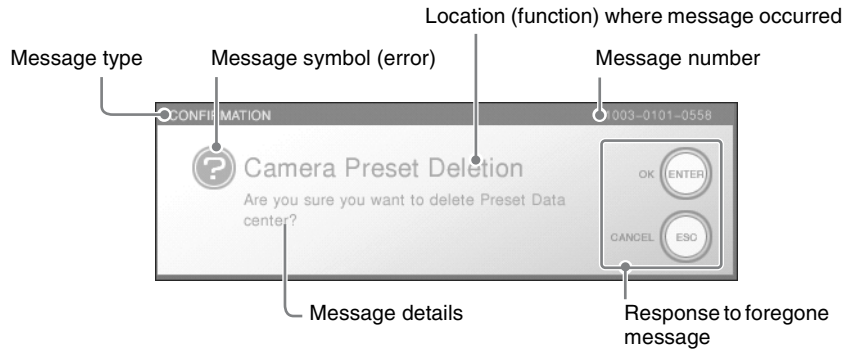
Messages

If any problem occurs during operation of this unit, a message appears. Before asking your dealer for help, use the information in this section to try to solve the problem. If this is not successful, make a note of the displayed message number, and consult your dealer or your Sony service representative.

Message Structure

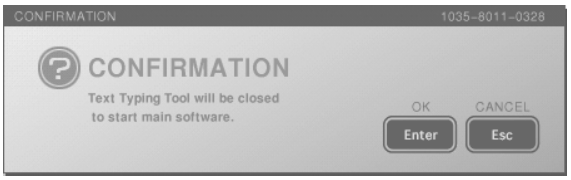
The messages that appear during operation of this unit consist of the following parts.

Anycast Station main software messages

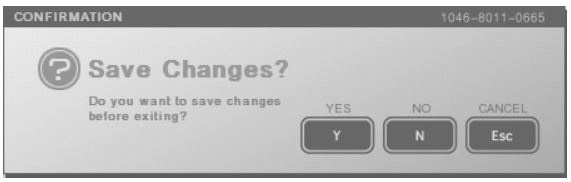


To select [OK], press the ENTER button or Enter key on the keyboard.
To select [CANCEL], press the ESC button or Esc key on the keyboard.

Text Typing Tool software messages



To select [OK], click [Enter], or press the Enter key on the keyboard.
To select [CANCEL], click [Esc], or press the Esc key (Fn+~/` key) on the keyboard.



To select [YES], click [Y], or press the Y key on the keyboard.
To select [NO], click [N], or press the N key on the keyboard.
To select [CANCEL], click [Esc], or press the Esc key (Fn+~/` key) on the keyboard.

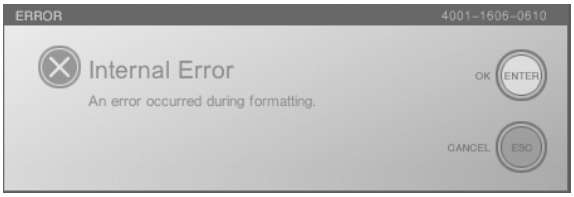
Message types

The significance of the message type is as follows.

Error message

Message type: ERROR
Message number: 4XXX-YYYY-ZZZZ (begins with 4)

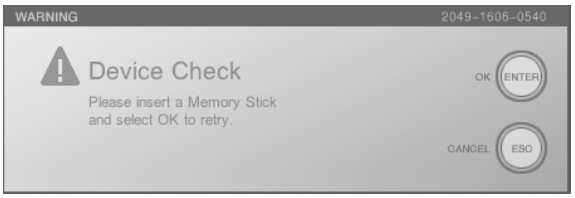
As a result of an operation, an error occurred.



Warning message

message type: WARNING
message number: 2XXX-YYYY-ZZZZ (begins with 2)

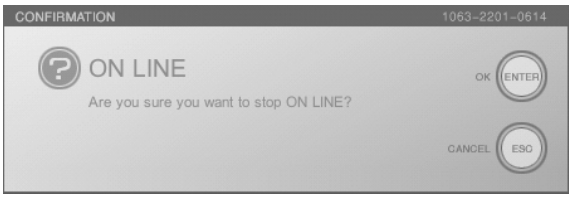
This appears when a preliminary check before carrying out an operation discovered a problem.



Confirmation message

Message type: CONFIRMATION
Message number: 1XXX-YYYY-ZZZZ (begins with 1)

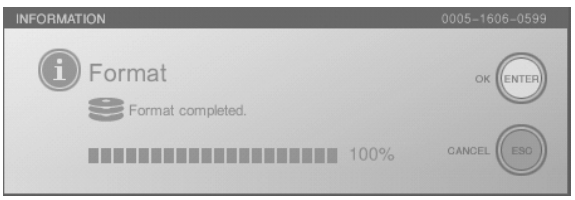
This type of message requests user confirmation, and can be cancelled.



Informational message

Message type: INFORMATION
Message number: 0XXX-YYYY-ZZZZ (begins with 0)

This provides information to the user.



List of Messages

If a message on this list is displayed and still appears after trying the operation again, consult your dealer or your Sony service representative.

Number	Message Text
0001	Data has been exported to directory xx:xx.
0002	Deleting... Please wait. xx
0003	Exporting... Please wait. xx
0004	Format completed.
0005	
0006	Formatting... Please wait.
0007	
0008	Import completed.
0009	Importing... Please wait. xx
0010	Shutting Down. Saving System Settings.
0011	Updating Network Settings.
0012	Installation finished. Please reboot for changes to take effect.
0013	Anycast Station Install Program
0014	Checking Memory Device.
0015	“Memory Stick” device was found.
0016	USB Flash Memory device was found.
0017	Installation canceled. Shutting down.
0018	Shutting Down.
0020	The changes will take effect after the next reboot.
0021	It is now safe to remove HDDX.
0022	Format completed.
0023	Formatting... Please wait.
0024	To re-mount the HDD, please ensure it is properly connected and re-start the unit.
0025	Recovery completed.
0026	Recovering... Please wait.
0027	Shutting Down. Cannot save the file during editing.
0028	One font file was copied.
0029	xx font files were copied.
0030	Please wait.
0031	Please wait. Importing... xx/xx fonts.
0032	Please wait.
0033	
0034	Please wait. Exporting... xx/xx sheets.
0035	Please wait.
0036	Please wait. Saving... xx/xx sheets.
0038	One or more frames were dropped during recording file xx. Please check that the recording quality is sufficient.
0039	Deleting... Please wait. xx
0040	Loading has been canceled.
0041	Please reboot for changes to take effect.
0042	Checking xxx.xxx.xxx.xxx ...Please wait.
0043	No answer from xxx.xxx.xxx.xxx.

Number	Message Text
0044	xxx.xxx.xxx.xxx is alive.
0045	Data has been save to file xx.
0046	File xx has not been recorded because video input signal was not detected.
0047	EDL data has been divided into the following files. xx-xx.
0048	EDL data has been divided into some files.
0049	An error occurred again. The problem persists. Please contact the service center.
0052	Installing... Please wait.
0053	Setting has been canceled.
0055	Aborting... Please wait.
0056	Converting… Please wait.
0057	Convert completed. xx file(s)
0058	The changes will take effect after the next reboot.
0059	Starting...
0060	VOD File Distribution will also be started simultaneously.
0061	Deleting... Please wait.
1001	Abort Installation? All Software will be returned to Previous Version.
1002	All files will be deleted. Are you sure you want to format “Memory Stick”?
1004	Delete xx?
1005	File xx already exists. Overwrite?
1006	xx is currently being used as the LOGO or INT source. Do you really wish to delete this file?
1007	xx is currently being used as the LOGO or INT source. Do you really wish to overwrite this file?
1009	Start Installation?
1010	Audio Source also will be set to Analog. L:xx R:xx
1011	When selecting DV Audio, Embedded DV Video will be selected automatically.
1012	When selecting DV Video, Embedded DV Audio will be selected automatically.
1013	Delete xx? All files on HDDX will be closed.
1014	All files will be deleted. Are you sure you want to format disk? xx File System:ext3
1015	A file on HDDX is currently being used. Do you really wish to format the HDD?
1016	Start recording X.xxxx.avi.
1017	Slot xx-xx DV interface has already been assigned as an input. Would you like to cancel the assignment and re-assign to the PGM Output.
1018	When the audio input assignment is changed, opened files will be closed automatically.
1020	When the PGM Output assignment is changed, any opened files will be closed automatically.
1021	When the video input assignment is changed, opened files will be closed automatically.
1024	Main software will be closed to start Text Typing Tool. Recording and Streaming will be stopped.
1025	A file in HDDX is currently being used. Do you really wish to disconnect the HDD?
1026	All files will be deleted. Are you sure you want to format USB Flash Memory?
1027	Are you sure you want to set the Power Off Timer? The system will be shutdown in 2 hours.
1029	Recording of the audio assigned to Source xx is not supported. The DV embedded audio will be recorded.
1030	This source has already been assigned to Source No. xx. Would you like to assign it to Source No. xx instead?
1031	Disk recovery may take a considerable time to complete. Do you really wish to run the recovery tool?
1032	Disk recovery may take a considerable time to complete. Do you really wish to run the recovery tool? All files will be closed.
1033	Do you want to delete xx?

Number	Message Text
1034	File Name, Saved Day
1035	Text Typing Tool will be closed to start main software.
1036	○Memory Stick ○USB Flash Memory 1 ○USB Flash Memory 2
1037	File Name, Saved Day
1038	
1039	○all sheets ○current sheet
1040	○Memory Stick ○USB Flash Memory 1 ○USB Flash Memory 2
1041	○Duplicate current sheet ○Create a blank sheet
1042	Do you want to save changes before creating a new file?
1043	Do you want to save changes before opening a new file?
1044	A file with this name already exists. Overwrite?
1045	File Name, Saved Day
1046	Do you want to save changes before exiting?
1047	File Name, Saved Day
1048	○4:3 ○16:9
1051	When selecting SDI Audio, Embedded SDI Video will be selected automatically.
1052	When selecting SDI Video, Embedded SDI Audio will be selected automatically.
1053	CH1/2 and CH3/4 of the same source may not be assigned simultaneously. X/X is already assigned. Would you like to assign Y/Y instead?
1054	Are you sure you want to delete xx?
1055	xx already exists. Overwrite?
1057	Do you want to delete xx?
1059	xx were not found. Do you want to select an alternative font?
1060	One or more interface modules require a firmware upgrade.
1061	File Name, Saved Day
1062	
1063	Are you sure you want to stop ON LINE?
1064	Slot xx-xx DV interface has already been assigned as an input. Would you like to cancel the assignment and record PGM Output?
1065	When the PGM Output is assigned, recording of xx will be canceled.
1066	Slot xx-xx DV interface has already been assigned as DV OUT. Would you like to cancel the assignment and record PGM Output?
1067	When the PGM Recording is assigned, recording of xx will be canceled.
1069	xx already exists. Overwrite?
1070	An error occurred during installation. Retry installation?
1071	Please reboot for changes to take effect.
1073	Are you sure you want to delete Preset Data xx?
1074	Start Streaming?
1075	When selecting HD SDI Audio, Embedded Video will be selected automatically.
1076	When selecting HD SDI Video, Embedded Audio will be selected automatically.
1077	When selecting 16:9HD, DV / SDI Output and PGM recording will be not available.
1078	When the input assignment is changed, recording of source xx xx will be canceled.

Number	Message Text
1079	When selecting “Live”, the transmission rate of 1M cannot be selected. It changes the maximum rate which can be selected.
1080	Are you sure you want to abort?
1083	Distribution of VOD File is stopped.
1084	xx was not found. Do you want to select an alternative font?
1085	Slot xx-xx DV interface has already been scheduled for DV OUT recording. Would you like to cancel recording?
1086	Are you sure you want to export EDL for xx?
1087	One or more interface modules require a firmware upgrade. Start Installation?
1088	Are you sure you want to delete all Preset Data (1 - xx)?
1090	Streaming of ON LINE Manager will also be halted.
1091	VOD File export may take a considerable time to complete. Do you really wish to run the export tool?
1092	The settings of Streaming will also be halted.
2001	Could not find file xx.
2002	Please insert “Memory Stick” or USB flash memory containing Installation Software and select OK to retry installation.
2004	Cannot read this type of “Memory Stick”.
2005	This “Memory Stick” needs formatting by the Anycast Station.
2006	This USB Flash Memory needs formatting by the Anycast Station.
2007	This “Memory Stick” needs formatting by the Anycast Station.
2008	Cannot read this type of “Memory Stick”.
2009	This type of compressed image file is not supported. xx
2011	Insufficient Space on “Memory Stick”. xx (xx)
2012	Internal Disk Full.
2013	
2014	Invalid Date and Time. YYYY/MM/DD HH:MM
2015	Less than 500 MB of free space remaining on Internal Hard Disk.
2016	“Memory Stick” is Write Protected. Please remove Write Protection and re-insert.
2018	Only images of size 160×120 are supported. xx
2019	Only the following sizes of CG file are supported. Width 720 - 1920 Aspect 4:3 5:4 5:3 16:9 16:10 xx
2020	Please complete the current transiting before pressing the KEY button.
2021	Please complete the Network Settings before starting streaming.
2022	Please complete the Streaming Settings before starting streaming.
2024	Please enter Network Settings for Streaming.
2025	Please insert a USB Flash Memory and select OK to retry.
2026	The characters ¥\ / : , ; * ? " < > | [ ] = cannot be used.
2027	Streaming, EDL and Recording functions currently unavailable. Please enter the necessary settings to continue.
2031	To use the DSK, a CG file must be selected as the INT source. Please select a CG file.
2035	HDDX has been removed. To avoid file corruption before removing the HDD, please execute “Disconnect” from the File Manager menu.
2036	HDDX is full.
2037	Cannot record to HDDX. The disk is not formatted, or has been formatted with an unrecognized file system.
2038	HDDX is not recognized.
2041	The number of files on HDDX has exceeded the system limit.
2042	Cannot change the audio input assignment while recording to HDD.

Number	Message Text
2043	Cannot change the video input assignment while recording to HDD.
2044	Cannot change the PGM Output assignment while recording to HDD.
2046	Insufficient Space on USB Flash Memory. xx (xx)
2047	This USB Flash Memory needs formatting by the Anycast Station.
2048	Cannot change Disk Recording settings while recording to HDD.
2049	Please insert a “Memory Stick” and select OK to retry.
2051	USB Flash Memory is Write Protected. Please remove Write Protection and re-insert.
2052	Problems have been found on HDDX. To avoid errors during HDD recording and playback, please run the recover tool from the File Manager menu.
2053	More than one device is connected to the HDD port (HDDX). Only one HDD can be connected.
2054	Capture function is not ready. Please start main application first.
2055	Internal Disk Full.
2056	Could not create directory xx.
2057	USB Flash Memory full.
2058	“Memory Stick” full.
2059	This USB Flash Memory is write protected. Please remove Write Protection and re-insert.
2060	This “Memory Stick” is write protected. Please remove Write Protection and re-insert.
2062	This USB Flash Memory needs formatting by the Anycast Station.
2063	This “Memory Stick” needs formatting by the Anycast Station.
2065	Please insert a USB Flash Memory and select OK to retry.
2066	Please insert a “Memory Stick” and select OK to retry.
2067	There was an invalid Font file, “xx.ttf.”
2068	No Font file were found on the USB Flash Memory. Please ensure the Font files are placed in directory. xx:/MSSONY/PRO/LPS/ANYCAST/FONT/
2069	No Font file were found on the “Memory Stick”. Please ensure the Font files are placed in directory. c:/MSSONY/PRO/LPS/ANYCAST/FONT/
2070	File Name contains illegal characters. The characters ¥\ / : , ; * ? " < > | [ ] = % cannot be used.,
2071	There were invalid Font files, “xx.ttf, xx.ttc, …”.
2072	Recording of this type of source to HDD is not possible.
2073	No files were found on the “Memory Stick”. Please ensure the files are placed in directory. c:xx
2074	No files were found on the USB Flash Memory. Please ensure the files are placed in directory. x:xx
2075	Recording of this source to HDD is not possible while DV (SlotX-X) is being used for DV OUT.
2076	Could not find file xx.
2077	HDDX has been formatted by a later version of Anycast Station, and is incompatible with this version.
2078	More than two storage devices were found. Please ensure only one device is inserted.
2079	Internal Disk Full. Please delete unwanted files.
2080	Please enter the Job file name.
2081	Could not find Job xx.
2082	Please enter xx Settings, then select “Apply”.
2083	Please enter Default Gateway Settings, then execute “Connection Check”.
2084	Please enter Other Settings, then execute “Connection Check”.
2085	Please enter Server Address Settings, then execute “Connection Check”.
2086	Connection to external server failed. Please check the Anycast Setup, and the status of the External Server and Network. (xx)

Number	Message Text
2087	Please enter xx Settings.
2090	Please turn off the PinP effect before pressing the PVW button.
2093	Please enter IP Address Settings, then select “Apply”.
2094	Please enter Primary DNS Settings, then select “Apply”.
2095	Please enter Subnet Mask Settings, then select “Apply”.
2096	The Subnet Mask contains an invalid bit pattern. Please re-enter then select “Apply”.
2097	Invalid Default Gateway address. Please re-enter then select “Apply”.
2098	When using DHCP to assign DNS Server settings, IP address settings must also be assigned by DHCP. Please re-enter then select “Apply”.
2099	Domain Names must be 3 characters or longer. Please re-enter then select “Apply”.
2100	Domain Names must start with an alphabetic character. Please re-enter then select “Apply”.
2101	Host Names must start with an alphabetic character. Please re-enter then select “Apply”.
2102	Domain Name cannot end with a hyphen or a period. Please re-enter then select “Apply”.
2103	Host Names cannot end with a hyphen. Please re-enter then select “Apply”.
2105	Please close opened file before performing this operation.
2108	Recording of this source to HDD is not possible while Slot xx-xx is being used for PGM Recording.
2111	Please make sure the device is ready to record before executing ON LINE.
2112	Please select DV OUT port before performing this operation.
2113	xx is an unsupported file.
2114	Recording PGM Output to HDD is not possible while DV (Slot xx-xx) is being recorded.
2116	The number of files on HDDX has exceeded the system limit (255). xx file(s) can be converted.
2117	Please set Streaming Output before performing this operation.
2118	The character " cannot be used.
2119	File xx already exists. Please input other file names.
2120	Less than 500 MB of free space remaining on Internal Disk. Please ensure this is sufficient. Do you wish to continue?
2121	Less than 500 MB of free space remaining on Internal Disk. Live distribution is also stopped when capacity is lost during file creation. Do you wish to continue?
2122	It is incompatible with this version.
2123	Filename xx has been reserved for VOD generation. Please input other file name.
2124	No files were found on HDDX. Please ensure the files are placed in directory. data:/anycast/tmp
2125	xx unsupported file(s) found. Make sure that the file name is within 20 alphanumeric characters. Only AVI files can be converted.
2126	SD_Safe_Area.tga is protected by the system.
4001	An error occurred during formatting.
4002	An error occurred when loading file.
4003	An error occurred when reading file.
4004	An error occurred when writing file.
4005	An error occurred while deleting the file. xx
4006	An error occurred while exporting. xx
4007	An error occurred while importing. xx
4008	An error occurred while opening CG file.
4009	Cannot execute encode process. Please restart the unit.
4010	An error occurred while applying Network Settings.

Number	Message Text
4012	Unable to start due to Hardware Fault.
4013	
4014	
4015	FATAL ERROR:Helix DNA Server.
4016	Unable to start due to Hardware Fault.
4017	
4020	
4021	
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4049	Failed to acquire Network Settings from DHCP server. To retry please select “Apply” from the Network Menu.
4051	Unable to start due to Hardware Fault. Installation canceled.
4062	Invalid executable program for installation.
4063	Unable to start due to Hardware Fault.
4064	Invalid program file was detected. Installation canceled. Shutting down.
4069	Unable to start due to Hardware Fault.
4070	HDDX is full. Recording stopped.
4071	HDDX is not recognized. Recording stopped.
4072	Recording failed due to unspecified error.
4075	An error occurred during disconnecting. (HDDX)
4077	HDDX is not recognized.
4078	An error occurred while recovering.
4079	More than one device is connected to the HDD port (HDDX). Only one HDD can be connected. Recording stopped.
4080	An error occurred while deleting xx.
4082	An error occurred when opening xx.

Number	Message Text
4083	An error occurred when reading xx.
4084	An error occurred when writing xx.
4085	Memory allocation error.
4086	An error occurred while opening TTF font file xx.
4087	An error occurred while reading file xx. Read permission denied or file does not exist.
4088	An error occurred while checking the version compatibility of xx.
4089	Opening file failed.
4091	Signal format of input source xx has been changed. Recording stopped.
4092	Connection timeout between encoder and server.
4093	The unusual end of the encoder was carried out.
4094	Cannot connect to the wnn server.
4095	An error occurred connecting to the wnn server.
4096	An error occurred while loading Job.
4097	An error occurred while saving Job.
4098	The system had failed in last shutdown. Please restart the unit.
4101	Cannot start recording xx. HDDX is not recognized.
4102	
4103	Cannot start recording xx. HDDX is full.
4104	Cannot start recording xx. A file is opened.
4105	An error occurred while saving EDL.
4106	Cannot start recording xx. The number of files on HDDX has exceeded the system limit.
4107	An error occurred while setting.
4110	An error occurred while converting a file. xx
4111	An error occurred while renaming.
4113	Cannot start recording. The device is not ready to record.
4114	Cannot read Time code.
4115	Internal disk is full. Creating file was stopped.
4116	The devise is not recognized. DV OUT recording stopped.
4117	Cannot start recording xx.

If the following message appears, immediately turn off the power to the unit and consult your dealer or your Sony service representative.

Number	Message text
4045	A fault has developed with the internal fan. To avoid damage please shutdown the system as soon as possible.
4046	
4081	

Troubleshooting

Check this section before consulting your dealer or your Sony service representative. If the unit still does not function properly, consult your dealer or your Sony service representative.

Problem	Possible causes	Possible solutions	See page
Video-related			
Video does not appear in the source viewer.	The connected device is not turned on.	Turn the connected device on.	–
	The cables are not connected properly.	Check that the cables are connected properly.	56
	The input signal is not assigned correctly.	Check that the input signal is assigned correctly.	66
Video does not appear in the PGM viewer.	The FTB button is lit.	Turn off the FTB button.	89
The PGM does not switch.	The [KEY] indicator on the operation screen is lit red.	While the KEY button on the front panel is lit green, press the CUT button.	99
The video in the source viewer is compressed.	In 4:3 mode, 16:9 video material displays are squeezed.	Set to 16:9 mode.	52
4:3 materials display in wide screen.	In 16:9 mode, 4:3 video material displays appear in wide screen.	Set to 4:3 mode.	54
The selection buttons switch on their own.	[Remote Switching] of [Video Utility] is set to something other than [Off], even when there is no external device connected to the FACTORY USE connector.	Set [Remote Switching] to [Off].	169
Audio-related			
No sound is emitted from the speakers or headphones (the audio level meter does not move).	The connected device is not turned on.	Turn the connected device on.	–
	The cables are not connected properly.	Check that the cables are connected properly.	56
	The input signal is not assigned correctly.	Check that the input signal is assigned correctly.	66
	The CH ON button is not lit.	Turn on the CH ON button.	171
	The audio channel fader has been left turned down.	Turn up the audio channel fader.	171
	The PGM fader has been left turned down.	Turn up the PGM fader.	171
	The monitor target is set to AUX.	Set the monitor destination displayed below the audio level meter to PGM.	210
No sound is emitted from the speakers or headphones (the audio level meter moves).	The monitor output level is turned down.	Turn up the monitor output level with the monitor level adjustment knob.	171
	The TB button or the DIM button is lit.	Turn off the TB button or the DIM button.	207
No sound is emitted from the internal speakers.	A device is connected to the monitor output connector.		–

Problem	Possible causes	Possible solutions	See page
Audio-related (continued)			
The peak indication does not disappear.	The control of the peak indication is not possible if the input audio is DV or SDI.	Check the input signal.	–
DV input			
Noise occurs in the video or audio. No video or audio is output.	The signal is not being received clearly.	Disconnect and then reconnect the cables. After reconnecting the cables, restart the connected DV device and the unit.	–
DV output			
DV signals are not output.	The DV output settings are not configured.	Configure the DV output settings.	191
	The aspect ratio is set to 16:9 HD mode.	Set to 4:3 or 16:9 SD mode.	52
SDI output			
SDI signals are not output.	The aspect ratio is set to 16:9 HD mode.	Set to 4:3 or 16:9 SD mode.	52
Picture-in-picture			
The NEXT selection button flashes and the picture-in-picture effect is not applied.	An attempt was made to use the same image for picture-in-picture as the one being used for keying.	Select a different image.	87
	An attempt was made to use the image assigned to INT for picture-in-picture.	Select a different image.	87
	An attempt was made to use the same image for picture-in-picture as the one being used for program output.	Select a different image.	87
Luminance keying, chroma keying, and downstream keying			
Keying does not work.	Keying is hidden because of the Crop setting.	Change the Crop setting.	109
	Keying is hidden because of the Clip, Gain, or Density settings.	Change the values set for Clip, Gain, or Density.	93, 102
Keying adjustments do not take effect.	A keying source created with PowerPoint was saved in Tiff format.	Save keying sources created with PowerPoint in BMP format.	235
Keying does not disappear when the KEY button is pressed.	The KEY button is not an On/Off button for keying.	Make the KEY button light green, and perform a transition, such as with the CUT button.	100
Keying does not disappear when the DSK button is pressed.	Luminance or chroma keying is being performed.	Make the KEY button light green, and perform a transition, such as with the CUT button.	100
Keying does not disappear when a transition is performed with the KEY button lit.	Downstream keying is being performed.	Turn off the DSK button.	92
Colors specified with the cursor are not removed.	The correct color cannot be determined because the cursor frame is too small.	Enlarge the cursor frame.	106
Logos			
Keying does not work.	Keying is hidden because of the Clip, Gain, or Density settings.	Change the values set for Clip, Gain, or Density.	98

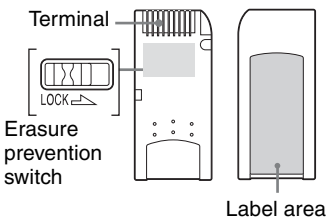
Problem	Possible causes	Possible solutions	See page
Camera controls			
The camera cannot be controlled.	The VISCA cables are not connected properly.	Check that the VISCA cables are connected properly (to the VISCA connector on the unit and the VISCA IN connector on the camera).	56
	The camera has not been registered for control.	Register the camera for control.	69
	The NEXT selection button assigned to the video feed from the camera you want to control is not selected.	Select the NEXT selection button assigned to the video feed from the camera you want to control.	160
	The camera status is No Response.	Reset the camera.	165
The camera preset disappears.	The backup switch on the camera (EVI-D100/EVI-D100P) is not set to ON.	Set the backup switch on the camera (EVI-D100/EVI-D100P) to ON before saving the preset.	160
Streaming media			
The video message, “Please wait for a while and reconnect,” appears in Real Player.	The ON LINE button has not been pressed.	Press the ON LINE button.	261
	The file name is wrong.	Check that the file name set on this unit and the file name set in Real Player are the same.	251, 263, 264
The ON LINE button does not turn off.	Only the ON LINE button is pressed.	Hold down the ESC button and press the ON LINE button.	263
The live contents cannot be viewed using Real Player.	The necessary settings for viewing the live contents are not set.	Set the necessary settings for viewing the live contents.	263
	Real Player is stopped.	Start Real Player playback.	–
	The streaming server does not transmit the live contents on the network.	Once set for [Off] in [Output] on the top menu under [Streaming], and then set for [Live] or [Live/VOD] again.	251
[Reconnecting] keeps appearing for the status.	A connection cannot be established because of the settings of the unit, network environment, status of the external server, etc.	Check the settings of the unit, network environment, and status of the external server.	–
USB device connection			
Cannot enter characters from a USB keyboard, even after disconnecting and reconnecting it.	The USB keyboard was not recognized because it was connected when the computer was busy performing processing for the software.	Try connecting to the other USB connector, or once set for [Off] in [Output] on the top menu under [Streaming]. Or, connect the USB keyboard beforehand when turning on the power.	26, 251
Text Typing Tool			
Even with [Paint] selected and a transparency set in the [BG] tab, the background is not transparent.	[BG] is selected in the view operation section.	Select [Checker] or [Live] in the view operation section.	141, 152
Even with [Transparent Black] or [Transparent White] selected in the [BG] tab, the background is not black or white.	[Checker] or [Live] is selected in the view operation section.	Select [BG] in the view operation section.	141, 152

Problem	Possible causes	Possible solutions	See page
External hard disk			
The hard disk number does not appear in the source viewer.	The source viewer is set to “No Assign.”	Set the input with [Video Input Assign] on the top menu.	67
	The source viewer shows “No Interface Module.”	Connect the interface module correctly.	65
	The hard disk is not recognized.	Disconnect the cable, then reconnect, and restart this unit.	178, 189
	Program output recording is reserved.	Set [PGM Recording] of [ON LINE Manager] in the top menu to [Off].	175
	The DV connector is set for program output recording.	Set [PGM Output] of [DV OUT] of [Video Output] in the top menu to [Off].	191
Attempts at recovery yield repeated messages, “An error occurred while recovering.”	The hard disk data is unrecoverable.	Use [File Manager] on the top menu → [Format]. * This erases the data.	172
The [PGM Recording] menu does not appear.	The aspect ratio is set to 16:9 HD mode.	Set to 4:3 or 16:9 SD mode.	52
The hard disk number remains grayed out.	The hard disk is being recovered automatically.	If the hard disk number does not display properly after waiting a few moments, restart the unit.	–
HD video interface module or HD serial digital interface module			
The HD indicator does not light.	The aspect ratio is not set to 16:9 HD mode.	Set to 16:9 HD mode.	25, 52
Keyboard			
The keyboard does not work.	The keyboard is out of range of the infrared sensor.	Use the keyboard within range of the infrared sensor.	48
	The keyboard batteries are depleted (when the keyboard is detached for use).	Replace the batteries.	47

“Memory Stick” Media

Notes on Using “Memory Stick” Media

- When you set the “Memory Stick” erasure prevention switch to “LOCK,” data cannot be recorded, edited, or deleted.



The position and shape of the write-protect switch may differ between the various types of “Memory Stick.”

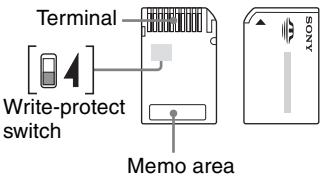
- Do not remove the “Memory Stick” while it is reading or writing data.
- Data may be damaged if:
  - The “Memory Stick” is removed or the AWS-G500 is turned off while reading or writing.
  - You use the “Memory Stick” in a location subject to the effects of static electricity or electric noise.
- We recommend that you back up important data recorded on the “Memory Stick.”
- Do not affix anything other than the supplied label to the “Memory Stick” label area.
- Affix the label so that it does not stick out beyond the label area.
- When storing or carrying a “Memory Stick,” keep it in its original case.
- Do not touch the terminal of the “Memory Stick” with anything, including your fingers or metallic objects.
- Do not strike, bend, or drop the “Memory Stick.”
- Do not disassemble or modify the “Memory Stick.”
- Do not allow the “Memory Stick” to get wet.
- Do not use or store the “Memory Stick” in locations subject to:
  - Extreme heat, such as in a closed car parked in the sun.
  - Direct sunlight.
  - Humidity or corrosive substances.

About Data

- When you set the “Memory Stick” erasure prevention switch to “LOCK,” data such as images and mails cannot be recorded, edited, or deleted. Be sure to unlock the switch before transferring or copying data on the AWS-G500 to the “Memory Stick,” or erasing data on the “Memory Stick.”
- We recommend that you make a backup copy of important data on another “Memory Stick” or on a hard disk using a computer.

Notes on Using “Memory Stick Duo”

- Use a pointed object, such as a ballpoint pen, to move the “Memory Stick Duo” write-protect switch.
- Do not write forcefully on the “Memory Stick Duo” memo area.



Notes on Using the Memory Select Function

- You cannot use multiple memory blocks simultaneously or continuously.
- Never operate the Memory Select switch when the “Memory Stick” is inserted in the slot of the AWS-G500, as it may cause damage. Sony Corporation assumes no liability for failure resulting from such operation.
- Make sure that the Memory Select switch is properly positioned to the side. When the switch is not positioned properly, the AWS-G500 may be damaged or malfunction.
- Before inserting the “Memory Stick” in the slot of the AWS-G500, make sure that the memory you want to use is already selected.
- A “Memory Stick” with the Memory Select function allows the user to select the internal memory of the “Memory Stick” with the selector switch. Care must be taken in the following cases as the supported devices only detect the selected memory:

- Formatting is only processed for the selected memory.
- The remaining memory is only indicated for the selected memory.
- Errors are only displayed for the selected memory and are detected separately from the unselected memory.

Specifications

General

Power Requirements
AC 100 V to 240 V, 50/60 Hz

Power Consumption
1.6 A-0.8 A

Operating Temperature
5ºC to 40ºC (41ºF to 104ºF)

Dimensions (w × h × d)
424 × 114 × 339 mm
($16^3/_4 \times 4^1/_2 \times 13^3/_8$ inches)

Mass
Approximately 8.0 kg
(17 lb 10 oz)

Video Signals

VIDEO INPUTS (standard configuration)

Composite
BNC Type × 4
Video: 1.0 Vp-p, 75 Ω, Sync negative

S-video
DIN Type × 4
Y: 1.0 Vp-p, 75 Ω, Sync negative
C: 0.286 Vp-p at burst, 75 Ω, (NTSC)
C: 0.3 Vp-p at burst, 75 Ω, (PAL)

DV IN*
i.LINK IEEE1394 6-pin Type × 4
IEC 61883-2 equiv.

* DV IN/OUT connectors

RGB
D-Sub Shrink 15-pin Type × 2 (Female)
XGA (1,024 × 768, 60 Hz 70 Hz 75 Hz)
SXGA (1,280 × 1,024, 75 Hz 60 Hz)
VESA (DMT) compliant
WXGA (1,280 × 768, 60 Hz)

Table of PC RGB input

Format		fH (kHz)	fV (Hz)	Dot clock (MHz)	Sync polarity: Horizontal	Sync polarity: Vertical
1,024 × 768	XGA VESA 60 Hz	48.363	60.004	65	Negative	Negative
	XGA VESA 70 Hz	56.476	70.069	75	Negative	Negative
	XGA VESA 75 Hz	60.023	75.029	78.75	Positive	Positive
1,280 × 1,024	SXGA VESA 60 Hz	63.981	60.02	108	Positive	Positive
	SXGA VESA 75 Hz	79.976	75.025	135	Positive	Positive
1,280 × 768	WXGA* 60 Hz	47.693	59.992	80.125	Negative	Positive

* Input from Macintosh computers is not supported.

VIDEO OUTPUTS

Composite: BNC Type × 1
Video: 1.0 Vp-p, 75 Ω, Sync negative

S-video: DIN Type × 1
Y: 1.0 Vp-p, 75 Ω, Sync negative
C: 0.286 Vp-p at burst, 75 Ω, (NTSC)
C: 0.3 Vp-p at burst, 75 Ω, (PAL)

DV OUT*: i.LINK IEEE1394 6-pin Type × 4
IEC 61883-2 equiv.

* DV IN/OUT connectors

RGB (VIDEO OUT)

15k RGB (50 Hz/59.94 Hz)
R: 0.7 Vp-p (75 Ω)
G: 0.7 Vp-p (75 Ω)
B: 0.7 Vp-p (75 Ω)
SYNC: Composite sync TTL output - audio output

RGB: D-Sub Shrink 15-pin Type × 2 (Female)
XGA (1,024 × 768 60 Hz, 75 Hz)
SXGA (1,280 × 1,024 60 Hz)
WXGA (1,280 × 768 60 Hz, 75 Hz)

Menu setting		Signal format	FH (kHz)	FV (Hz)	Sync
RGB OUT *	PGM OUT **				
XGA 60 Hz	-	XGA VESA (DMT) 60 Hz	48.363	60.004	H-negative V-negative
XGA 75 Hz	-	XGA VESA (DMT) 75 Hz	60.023	75.029	H-positive V-positive
SXGA 60 Hz	-	SXGA VESA (DMT) 60 Hz	67.500	60.020	H-positive V-positive
Video RGB	NTSC	15k RGB 60 Hz	15.734	59.940	Composite sync
	PAL	15k RGB 50 Hz	15.625	50.000	Composite sync
RGB OUT	-	WXGA 60 Hz	47.693	59.992	H-negative V-positive
		WXGA 75 Hz	60.091	74.926	H-negative V-positive

* For details of RGB OUT settings, see "Setting the RGB Output Signal Format" (page 216).
** For details of PGM OUT settings, see "Selecting the Video Output Signal Format" (page 52).

REF OUT: BNC Type × 2
Sync: 0.286 Vp-p, 75 Ω, (NTSC)
Sync: 0.3 Vp-p, 75 Ω, (PAL)
C: 0.286 Vp-p at burst, 75 Ω, (NTSC)
C: 0.3 Vp-p at burst, 75 Ω, (PAL)

Recorder Port

HDD (in exfactory configuration)
i.LINK: IEEE1394 6-pin Type × 2
HDD IF: SBP2

Audio Signals

AUDIO INPUTS

Analog Inputs 1-2
XLR/TRS Combo Type × 2
Ref. Level: +4 dBu, –20 dBu, –44 dBu
Mic. Power: +48 V

Analog Inputs 3-6
TRS Type × 4 / Ref. Level: +4 dBu, –20 dBu, –44 dBu

Analog Inputs 7-8
Pin × 2 / Ref. Level: –10 dBu

DV IN*: i.LINK: IEEE1394 (6 pins) × 4
IEC 61883–2 compliant
Audio standard level: –20 dBFS
Sampling rate:
12 bit 32 kHz 4ch (uses only ch 1 and 2)
16 bit 48 kHz 2ch

* DV IN/OUT connectors

AUDIO OUTPUTS

PGM OUT: TRS Type × 2 / Ref.: +4 dBu / Impedance: 150 Ω

MIX OUT: Pin Type × 2 / Ref.: –10 dBu / Impedance: 470 Ω

AUX OUT: TRS Type × 2 / Ref.: +4 dBu / Impedance: 150 Ω

MONITOR OUT
TRS Type × 2 / Ref.: +4 dBu / Impedance: 150 Ω

DV OUT*: i.LINK: IEEE1394 (6 pins) × 4
IEC 61883–2 compliant
Audio standard level: –20 dBFS
Sampling rate: 12 bit 32 kHz 4ch, 16 bit 48 kHz 2ch

* DV IN/OUT connectors

HEADPHONES
1/4" Stereo Phone Jack Type × 1
70 mW × 2 / Impedance: 47 Ω

INTERCOM
D-Sub 9-pin Type (Female) / Original Parallel I/O

Other Interfaces

NETWORK RJ-45 Type × 1, 10 Base-T/ 100 Base-TX
USB USB A Type × 2, USB equiv.
RGB (GUI) D-Sub Shrink 15-pin × 1 (Female), WXGA 1,280 × 800 60 Hz
REMOTE
(Provided for future functional expansion.)
D-Sub 9-pin (Male) × 1, RS-232C
FACTORY USE
D-Sub 15-pin × 1 (Male), Original Parallel I/O
MEMORY STICK
"Memory Stick" Slot
VISCA DIN 8-pin Type × 1, RS-232C
Sony VISCA camera commands are supported.
LCD 15.4"
WXGA (1,440 × 900* 60 Hz)
Speaker Built-In Speaker × 2, Size: 20 × 40 mm

* This specification is for LCD panels on Anycast Station units with serial numbers 15001 or later. The specification for LCD panels on units with serial numbers earlier than 15001 is WXGA 1,280 × 800 60 Hz. The specification for RGB (GUI) under "Other Interfaces" is WXGA 1,280 × 800 60 Hz, regardless of serial number.

Supplied Accessories

CD-ROM (× 1)
Notes on using the CD-ROM (× 1)
Pin to BNC connector (× 4)
Battery: CR2032 (× 1)
Operating instructions (× 1)
Keyboard (× 1) 85 keys + Pointer / Infrared communication
Powered from AWS-G500: +5 V
Battery operation: CR2032 or CR2032H × 2

Optional Accessories

BKAW-550 PC Video Interface Module

(mounted in slot 3 of this unit)
RGB D-Sub Shrink 15-pin Type × 2 (Female),
XGA (60 Hz, 75 Hz),
SXGA (60 Hz, 75 Hz)
VESA (DMT) compliant

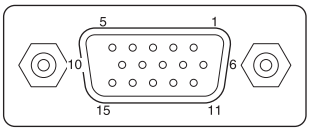
BKAW-560 HD Video Interface Module

$Y P_B P_R$ IN D-Sub Shrink 15-pin Type × 2 (Female)
720/59.94p, 720/50p, 1080/59.94i, 1080/50i
Y: 1.0 Vp-p, 75 Ω, with Sync
P_B: 0.7 Vp-p (75 Ω)
P_R: 0.7 Vp-p (75 Ω)
$Y P_B P_R$ OUT D-Sub Shrink 15-pin Type × 1 (Female)
720/59.94p, 720/50p, 1080/59.94i, 1080/50i
Y: 1.0 Vp-p, 75 Ω, with Sync
P_B: 0.7 Vp-p (75 Ω)
P_R: 0.7 Vp-p (75 Ω)

HD input signals

Video format	fH (kHz)	fV (Hz)	Sync
1080/60i	33.750	59.94	S on Y
1080/50i	28.130	50.000	S on Y
720/60p	45.000	59.94	S on Y
720/50p	37.500	50.000	S on Y

Pin assignment



Pin	Signal	Pin	Signal	Pin	Signal
1	Pr (X)	6	Pr (GND)	11	NC
2	Y (X)	7	Y (GND)	12	NC
3	Pb (X)	8	Pb (GND)	13	Reserved
4	NC	9	NC	14	Reserved
5	GND	10	GND	15	NC

BKAW-570 SD Video Interface Module

(mounted in slots 1 and 2 of this unit)
Composite BNC Type × 2
Video: 1.0 Vp-p, 75 Ω, Sync negative
S-video DIN Type × 2
Y: 1.0 Vp-p, 75 Ω, Sync negative
C: 0.286 Vp-p at burst, 75 Ω, (NTSC)
C: 0.3 Vp-p at burst, 75 Ω, (PAL)
DV IN/OUT i.LINK: IEEE1394 6-pin Type × 2
IEC 61883-2 equiv.

HDD	i.LINK: IEEE1394 6-pin Type × 1 HDD IF: SBP2

BKAW-580 Serial Digital Interface Module

SDI IN	BNC × 2 VIDEO: 800 mVp-p (75 Ω) SMPTE259M-C ITU-R656 compliant AUDIO: Audio sampling rate: 20 bit 48 kHz 2 channels (channels 1 and 2 or 3 and 4) SMPTE272M-A compliant
SDI OUT	BNC × 1 VIDEO: 800 mVp-p (75 Ω) SMPTE259M-C ITU-R656 compliant AUDIO: Audio sampling rate: 20 bit 48 kHz 2 channels (channels 1 and 2) SMPTE272M-A compliant
HDD	HDD i.LINK: IEEE1394 S400 (6 pins) × 1 HDD IF: SBP2

BKAW-590 HD Serial Digital Interface Module

HD SDI IN	BNC × 2 720/59.94p, 720/50p, 1080/59.94i, 1080/50i VIDEO: 800 mVp-p (75 Ω) SMPTE292M compliant AUDIO: Audio sampling rate: 20 bit 48 kHz 2 channels (channels 1 and 2 or 3 and 4) SMPTE299M compliant
HD SDI OUT	BNC × 1 720/59.94p, 720/50p, 1080/59.94i, 1080/50i VIDEO: 800 mVp-p (75 Ω) SMPTE292M compliant AUDIO: Audio sampling rate: 20 bit 48 kHz 2 channels (channels 1 and 2) SMPTE299M compliant

Caution

Due to the internal video processing of AWS-G500, the output SDI signal is not guaranteed to be identical to the input SDI signal.

Recommended power cord

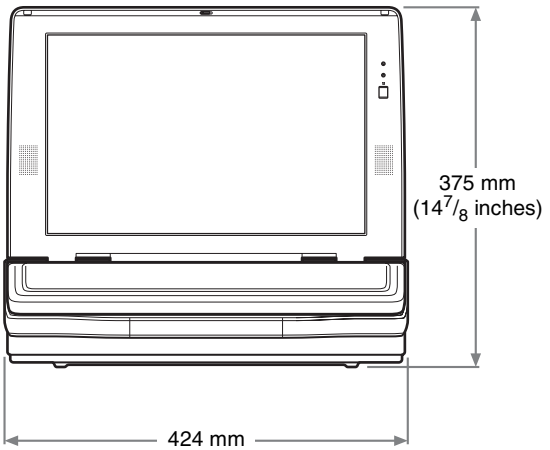
NA	Part No. 1-551-812-11
Europe	Part No. 1-782-929-22

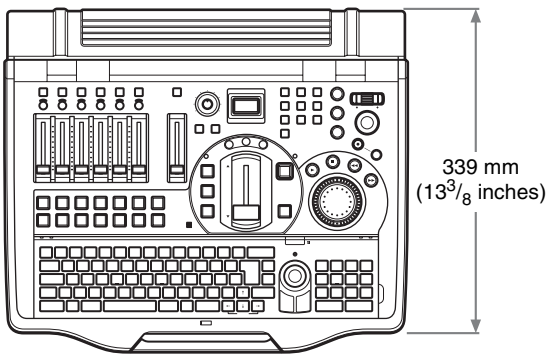
Design and specifications are subject to change without notice.

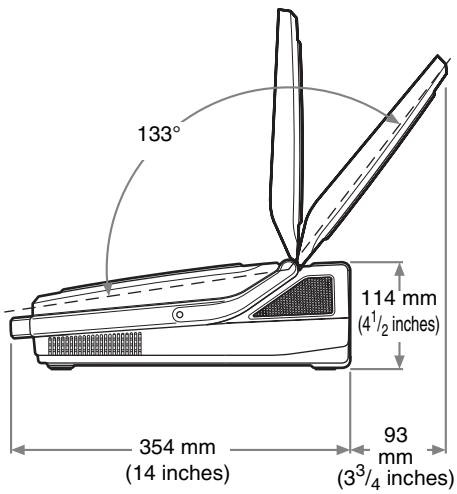
Notes

- 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.

Dimensions


375 mm
(14 7/8 inches)
424 mm
(16 3/4 inches)


339 mm
(13 3/8 inches)


133°
114 mm
(4 1/2 inches)
354 mm
(14 inches)
93
mm
(3 3/4 inches)

Glossary

16:9 squeeze
An SD video signal with a 16:9 aspect ratio that is squeezed into a 4:3 aspect ratio.

Auto gain control
A function which uses the luminance signal's sync level as a basis for adjusting the luminance signal to an appropriate level. Use this when the luminance signal level is off by a significant margin.

Black burst signal
A reference signal used to achieve external synchronization (GenLock).

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.

Color matte
A color signal generated by this unit. The hue, saturation, and luminance of color mattes can be adjusted.

Compressor
A function which smoothly limits audio signals exceeding a certain threshold. Used to even out audio signals which contain large differences in amplitude.

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 clients when they connect to a network, and recovering the addresses when they disconnect.

Dimmer
A function which slightly dims a picture or slightly lowers audio levels.

DNS (Domain Name System)
A system which allows Internet domain names to be translated into IP addresses.

Domain name
An identifier assigned to a group of computers and networks on the Internet. Domain names are delimited by periods (.), and arranged from the left in the order top level domain, second level domain, third level domain, and so forth.

Downstream key (DSK)
A function which allows pictures to be composed by taking video to which an effect has already been applied and adding further images and text. It is called downstream key because this processing is done at the very end of the processing stream.

EDL (Edit Decision List)
Data containing edit instructions that use timecodes (time clock information attached to images) to specify the order of cuts to be taken from images.

Embedded audio
Audio that is embedded into a video signal.

EMC (Electro-Magnetic Compatibility)
The properties of an electrical device of electromagnetic non-interference and electromagnetic immunity. Electromagnetic non-interference means that when the device operates it does not impair the operation of other devices, and does not act as a source of interference over a certain level that would be harmful to human health. Electromagnetic immunity is the property of electromagnetic susceptibility such that the device can operate without interference from electromagnetic radiation and so forth emitted by other devices.

Encode
To use compression technology to create streaming files with appropriate bitrates for different bandwidths.

Equalizer (EQ)
A function which controls specific audio frequencies in the high, mid, and low regions. Used to strengthen or delete specific frequencies in order to improve the audio.

ext3
A file system widely used with Linux, which adds a journaling function (allowing data changes to be handled as transactions) to the ext2 file system. It requires a shorter time to recover from hardware problems.

Fade to Black (FTB)
An effect in which video fades out to a black screen.

Filter
A function which removes high or low frequencies. Used to remove cable noise and other kinds of noise.

Flip
Screen explanatory diagrams, including text, illustrations, graphics, and maps. A flip is displayed in the video and is used to explain the video content.

IEEE1394 (Institute of Electrical and Electronics Engineers 1394)
A standard for a high-speed serial bus for connection not only of computer peripherals, but also of digital devices to each other. Known as FireWire by Apple Computer, and as i.LINK by Sony Corporation.

FTB (Fade to Black)
See "Fade to Black."

GPI (General Purpose Interface)
A general purpose interface that is used to communicate controls to devices that do not have standard interfaces.

GUI (Graphical User Interface)
A user interface which, unlike traditional text-based interfaces, is designed around graphical elements such as buttons and menus.

Intercom
A network that allows staff members to talk to each other during program production.

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. The most commonly used types are the terminal identifiers to the left of Internet domain names.

i.LINK
The high-speed serial bus standard IEEE1394.
Also called FireWire. Allows connections between computers and peripherals, and also direct connections between digital devices such as digital cameras.

IPv6
The next-generation Internet Protocol, the successor to the current IPv4 protocol.

IRE (International Radio Engineers)
A measure of the brightness level of video on the grayscale, ranging from 0 to 100. The brightness level of black is sometimes set at 0 IRE and sometimes set at 7.5 IRE.

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 shown in video for the purpose of copyright protection.

Luminance key
A method of creating a composite picture by deleting components of a specified luminance (brightness).
Typically used to extract bright characters from a dark background, so that only the characters can be added to the composed picture.

Mix
A type of transition effect. A new picture is mixed into an old picture, eventually replacing the old picture.

Monitor
To listen to audio and view video. Or a device for viewing and listening.

Motion JPEG2000
An extension to the JPEG2000 image compression format that enables video recording. It provides picture quality comparable to the DV format, with file sizes that are smaller than DV. It is noted for high compression ratios in scenes with rapid movement, which are problematic for the MPEG format.

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 right/left 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.

Post-Fader
Audio signals after the application of all adjustments except pan.

Pre-Fader
Audio signals before the application of any adjustments with audio channel faders. All other adjustments are the same as those for Post-fader. Pre-fader audio can be output from the AUX output connector.

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) signal output
The final video and audio signals output from this system, after the application of effects. The video seen by viewers.

RCA pin
A connector used on consumer audio equipment. Connectors come in color-coded pairs (often white for left and red for right). Also used for video signals (color yellow).

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.

STP (Shielded Twisted Pair cable)
A type of cable for communications. Copper wires are twisted in pairs, and then shielded.

Streaming
Real-time playback of audio and data received over a network. Compared to "download" playback, which starts after all the data has been received, streaming allows playback of data received up to now. Formats which enable streaming include RealMedia, Windows Media, and Quick Time. This system supports the RealMedia streaming file format (.rm).

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.

Superimpose
A type of special effect in video editing, used to display text and pictures over other pictures.

Talk back (TB)
To pass along instructions, for example from a director. In this system, when you talk into the microphone on the front panel, your voice is output to the connected intercom system, allowing you to converse with other people on the intercom system.

TB (Talk Back)
See "Talk back."

Telop (Television Opaque Projector)
Superimposed text and image resources, such as television subtitles. This also refers to text and images that have been combined with video.

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 from one video to a different video over a certain time interval. Transitions can be used together with text and image keys to compose and erase pictures.

Transition effect
Gradually switching from one video to another through the application of one of various effects. This systems supports two type of transition effects: mix and wipe.

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 used in headphones and other devices.

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. Viewers can also download data for viewing onto their computers from the Internet.

Wipe
A type of transition effect. A new picture moves in to replace an old 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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