SONY®

Digital Motion Picture Camera

VENICE

Operating Instructions

MPC-3610

Firmware Version 3.0

Table of Contents

Features

New 36×24 mm Full Frame CMOS Image Sensor

Supports image capture at resolutions up to 6048 × 4032 pixels.* By switching the imager mode, the unit can natively support many shooting formats, including Super 35 24.3 × 12.8 mm, 4096 × 2160 pixel resolution (equivalent to 3-perforation motion picture film) and 4:3 Anamorphic* Super 35 24.3 × 18.3 mm, 4096 × 3024 pixel resolution (equivalent to 4-perforation motion picture film).
* Full Frame and Anamorphic modes require licenses sold separately.

Wide Latitude

The unit supports 15+ stops of latitude. It features very low noise for delivering phenomenal images in conditions from searing sunlight to almost no light, allowing for unprecedented creative freedom in grading.

Wide Color Space Capture

Images can be captured in a color space that exceeds DCI-P3. The degree of freedom in the grading is dramatically improved when using Sony's S-Gamut and S-Gamut3.Cine color space together with S-Log3.

Dual Base ISO

The unit supports two selectable native ISO settings (ISO500 and ISO2500). Using Base ISO500 under normal lighting conditions and Base ISO2500 under low light conditions allows you to maintain the latitude balance between bright and low light conditions when shooting, without graining (noise).

PL Lens Mount

Equipped with the industry-standard PL lens mount. The lens mount supports Cooke /i technology, and lens information is recorded as metadata frame by frame.

E Mount Lens

E mount lenses are supported by removing the PL lens adaptor. E mount lenses are smaller and lighter than PL lenses, and are available in a diverse lineup for expanded possibilities in image reproduction.

Compact Body and Intuitive Operation

A relatively compact design for a device equipped with a large Full Frame image sensor, achieved using Sony's miniaturization technology, which allows easier shooting in confined spaces or on drones.
The position, shape, and size of the control buttons reflect the requirements of camera operators for intuitive operation. They also feature backlighting for ease of use in dark locations.

Engineered to Survive

The chassis is made from magnesium alloy for high robustness and durability. The ventilation system is completely isolated from all electronic components to prevent ingress of dust, sand, and liquids.*
The silent-running fan can be cleaned or even swapped out on set quickly and easily to maintain high redundancy.
* Design protects against dust and rain, but cannot completely prevent the ingress of dust and liquid.

Modular Design

Features a fully modular design, allowing you to flexibly support various rigs and peripheral equipment according to the shooting application. The top handle and viewfinder are easily adjustable to maintain ergonomic balance and ease of use with lenses. The height of the optical axis is the same as the PMW-F55, permitting the use of peripheral devices used with the PMW-F55. And an optional AXS-R7 Portable Memory Recorder can be securely attached to the rear of the unit using four hex screws.

8-Position Optical ND Filter

Employs an 8-position optical ND filter. It offers a wide ND range of 0.3ND (1/2 = 1 stop) to 2.4ND (1/256 = 8 stops) that reduces time lost on set changing external ND filters. The ND filter mechanism is servo-controllable.

Intuitive and Familiar On-Set Operation

The menu screen is available from both sides of the camera, with the main control display on the Assistant side of the camera for fast access to the camera settings by the camera assistant while shooting.
An OLED mini display on the Operator side allows the operator to access commonly accessed features such as ND filter position, shutter, white balance, exposure index (EI), and frame rate (FPS), making it convenient for the operator to check the status of the unit.

Various Recording Formats

The unit supports recording on SxS memory cards in XAVC 4K/QFHD, MPEG HD, and HD ProRes 422 formats. In addition, it can record in 16-bit RAW or X-OCN format onto AXS memory cards when used in combination with an optional AXS-R7 Portable Memory Recorder.

Imager Block Extension

The imager block can be extended from the camera body by 2.7 m (8.9 ft) or 5.5 m (18 ft) by connecting the CBK-3610XS* Camera Extension System.
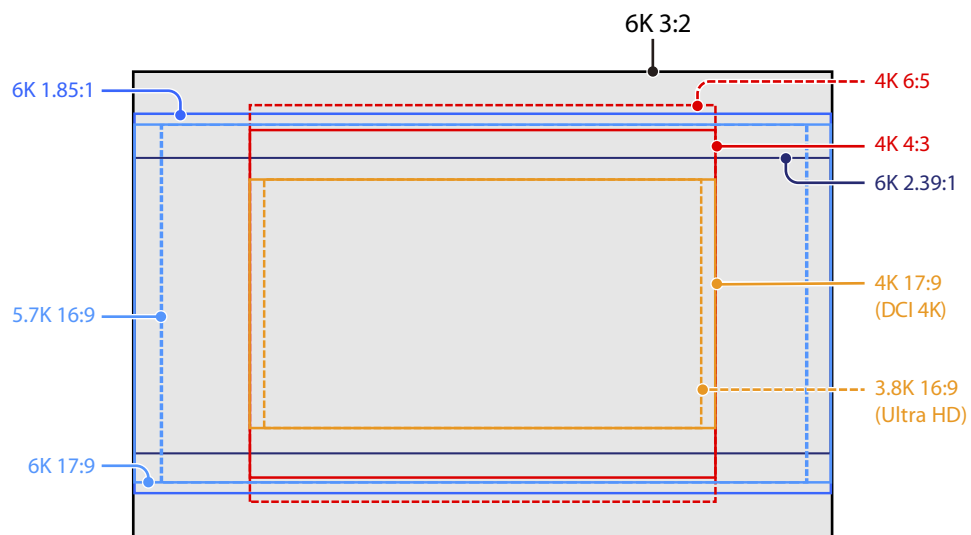* Update the firmware to version 3.0 or later.

Effective Picture Size

The unit supports shooting in the following effective picture sizes.

[Note]
A software license is required to shoot in 6K 17:9, 6K 1.85:1, 6K 2.39:1, 6K 3:2, 5.7K 16:9, 4K 4:3, and 4K 6:5.

Software Licenses

You can select software licenses (optional) according to the intended usage of the unit.
Software licenses are installed using Maintenance > License Options (page 66) in the full menu.

Software license	Imager mode	Effective number of pixels (Image pixels)	W × H (mm)	Project frame rate
License not required*	3.8K 16:9	3840 × 2160	22.8 × 12.8	23, 24, 25, 29, 50, 59
	3.8K 16:9 Surround View	3840 × 2160 (4268 × 2400)	22.8 × 12.8 (25.4 × 14.3)	23, 24, 25, 29
	4K 17:9	4096 × 2160	24.3 × 12.8	23, 24, 25, 29, 47, 50, 59
	4K 17:9 Surround View	4096 × 2160 (4552 × 2400)	24.3 × 12.8 (27.0 × 14.3)	23, 24, 25, 29
Anamorphic License	4K 4:3	4096 × 3024	24.3 × 18.0	23, 24, 25, 29, 47
	4K 4:3 Surround View	4096 × 3024 (4552 × 3360)	24.3 × 18.0 (27.0 × 20.0)	23, 24, 25, 29
	4K 6:5	4096 × 3432	24.3 × 20.4	23, 24, 25, 29
Full Frame License*	5.7K 16:9	5670 × 3190	33.7 × 18.9	23, 24, 25, 29
	6K 2.39:1	6048 × 2534	35.9 × 15.0	23, 24, 25, 29
	6K 17:9	6054 × 3192	36.0 × 19.0	23, 24, 25, 29
	6K 1.85:1	6054 × 3272	36.0 × 19.4	23, 24, 25, 29
	6K 3:2	6048 × 4032	35.9 × 24.0	23, 24, 25

* The Anamorphic license is required to enable ratio settings, other than Off(1.0×), for the de-squeeze function.

Surround View

Surround View is a mode available in the following imager modes that displays an image range that includes a 5% outer region beyond the effective picture size (top/bottom/left/right) in the viewfinder and SDI monitor output, allowing you to view a larger image range when shooting. The recorded image area does not include the outer region.
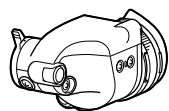3.8K 16:9
4K 17:9
4K 4:3

[Notes]
- In this mode, limitations on the maximum project frame rate setting may apply.
- In 4K 4:3 mode with de-squeeze ratio of 2.0×, the image area includes only 5% of the top and bottom outer regions.

System Configuration

DVF-EL200
Viewfinder
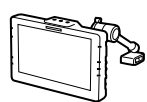
DVF-L700
Viewfinder
(VF cable (A-2201-632-A or
A-2201-633-A) is required)
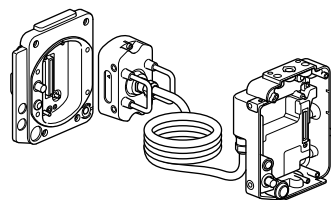
CBK-3610XS
Camera Extension System
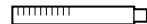
ECM-680S, ECM-678,
ECM-674
Microphone
(EC-0.5X3F5M is
required)
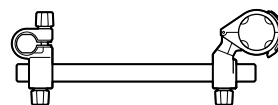
Microphone Holder (A-2182-620-A)
Rod Clamp (A-2182-621-A)
Rod (4-684-612-01)
Microphone Holder assembly (X-2596-733-2)
Screws P2.6×8 (2) (7-627-556-98)
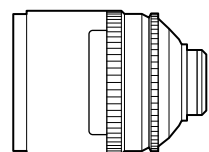
SCL-PK6,
SCL-P11X15
S35 PL Lens

CBKZ-3610A,
CBKZ-3610AM,
CBKZ-3610AW
Anamorphic
License
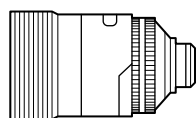
Anamorphic Lens
(PL mount / E mount)

MPC-3610

AXS-R7
Portable Memory
Recorder

AXS-A256S24, AXS-A512S48,
AXS-A512S24, AXS-A1TS48,
AXS-A1TS24
AXS Memory Card

AXS-AR1, AXS-CR1
AXS Memory Card
Reader

BP-FL75, BP-FLX75
Battery Pack

CBKZ-3610F,
CBKZ-3610FM,
CBKZ-3610FW
Full Frame License
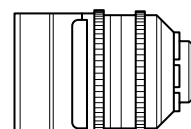
Full Frame Lens
(PL mount / E mount)
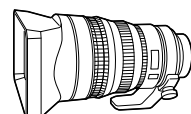
VCT-FSA5
Shoulder Adaptor
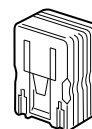
AC-DN2B, AC-DN10
AC Adaptor

SBP-64/128/256E, SBS-32/64/128G1C
SxS Memory Card

QD-G32E/G64E/G120F/G240F
XQD Memory Card
(QDA-EX1 XQD ExpressCard Adaptor is required)
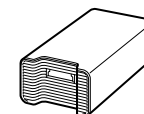
AXS-AR1
AXS Memory Card Reader

SBAC-US30/UT100
USB Card Reader

SELP28135G, SEL1635GM, SEL2470GM, SEL70200GM, SEL100400GM,
SEL1224G, SEL35F14Z, SEL50F14Z, SEL85F14GM, SEL90M28G,
SEL100F28GM
E Mount Lens

Location and Function of Parts

Operator Side

Air inlet

SxS memory card
slot block (page 8)
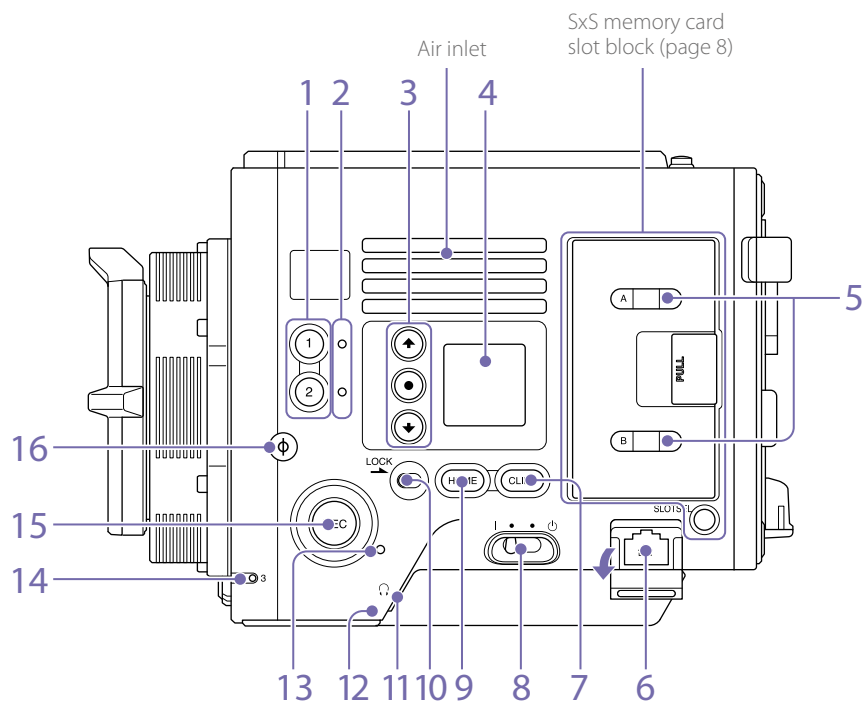
1. **ASSIGN (assignable) buttons 1/2 (page 37)**
   Assign functions using the EDIT page of the
   user functions screen (page 37).
   The assigned function toggles between on/off
   (enable/disable) or is activated with each
   press.

2. **ASSIGN (assignable) lamps 1/2 (page 37)**
   Each lamp is lit orange when the assigned
   function is on (enabled) or activated, and not
   lit when the function is off (disabled).

3. **Mini display ITEM keys 1 to 3**
   Controls the operation of functions on the
   mini display (page 70).

4. **Mini display**
   Displays various setup items, such as shutter

   angle, that you can check or modify
   (page 70).

5. **ACCESS lamps (SLOT A/B)**
   Each lamp is lit when the recording media in
   SxS card slot A/B is the target for recording/
   playback and when data is being written to or
   read from the recording media in SxS card slot
   A/B (page 23).

6. **Network connector (RJ-45)**
   Connect to a wired LAN network using a LAN
   cable (not supplied) for remote control of the
   unit (page 73).

7. **CLIPS button**
   Press to display the clip screen on the mini
   display to enable clip operations (page 72).

Simultaneously, the clip list screen is displayed
on the sub display and can also be used for
clip operations.
To switch from playback mode to shooting
mode, press the HOME button.

8. **Power switch**
   Set to the ON position (**I**) to turn the power on.
   Set to the OFF position (⏻) to turn the power
   off.

   [Notes]
   - This unit uses a small amount of standby power
     even when the power switch is set to OFF. Remove
     the battery pack if the unit will not be used for a
     prolonged period.
   - When removing the battery pack or the DC IN
     power, be sure to first set the power switch to the
     OFF position. Interrupting the power supply during
     recording or during memory card access could cause
     a malfunction.

9. **HOME button**
   Press to clear the item selection display and
   return to the Home screen on the mini display.
   If pressed when the unit is in playback state,
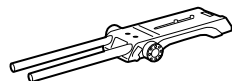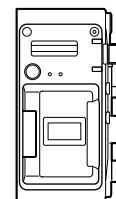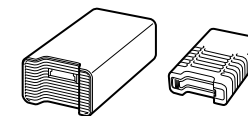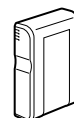   the unit transitions to shooting mode
   (page 70).

10. **LOCK switch**
    Locks the operation of the buttons on the
    Operator side. When locked, the switch
    background LED lights in orange.

11. **Headphones connector (stereo mini jack)**
    Connect to earphones for audio monitoring.
    You can monitor the input audio during
    shooting/recording and playback sound
    during playback (page 69).

12. **Built-in speaker**
    You can monitor the input audio during
    shooting/recording and playback sound
    during playback. The speaker also sounds
    alarms to reinforce visual warnings
    (page 69).
    If you connect earphones to the headphones
    jack, the speaker output is suppressed
    automatically.

13. **REC ACTIVE lamp**
    The lamp is lit green when the REC button is
    enabled.

14. **ASSIGN (assignable) lamp 3 (page 37)**
    The lamp is lit orange when the assigned
    function is on (enabled) or activated, and not
    lit when the function is off (disabled).

15. **REC (recording start/stop) button/lamp**
    Press to start recording, turning the REC lamp
    on. Press again to stop recording, turning the
    REC lamp off (page 77).
    The REC lamp flashes when a device error or
    warning occurs.

16. **φ mark**
    The φ mark is on the same plane as the image
    sensor.
    To measure the precise distance between the
    unit and the subject, use the φ mark as a
    reference.

SxS memory card slot block (page 23)

The SxS memory card slots are located behind the cover.
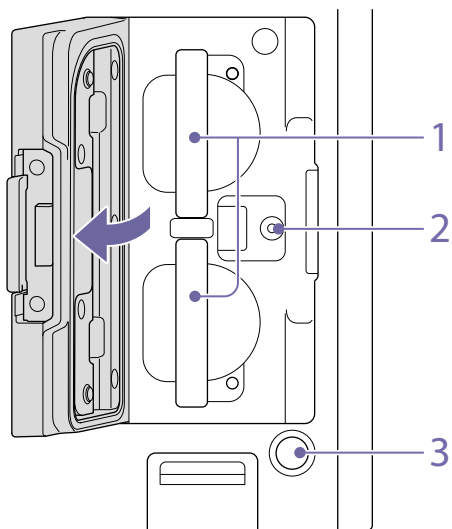
1. **SxS memory card slots A/B**

2. **Manufacturer calibration terminal**
   Manufacturer terminal for calibration and servicing (cannot be used by users).

3. **SLOT SELECT (SxS memory card select) button**
   Press to switch the active slot.

Assistant Side
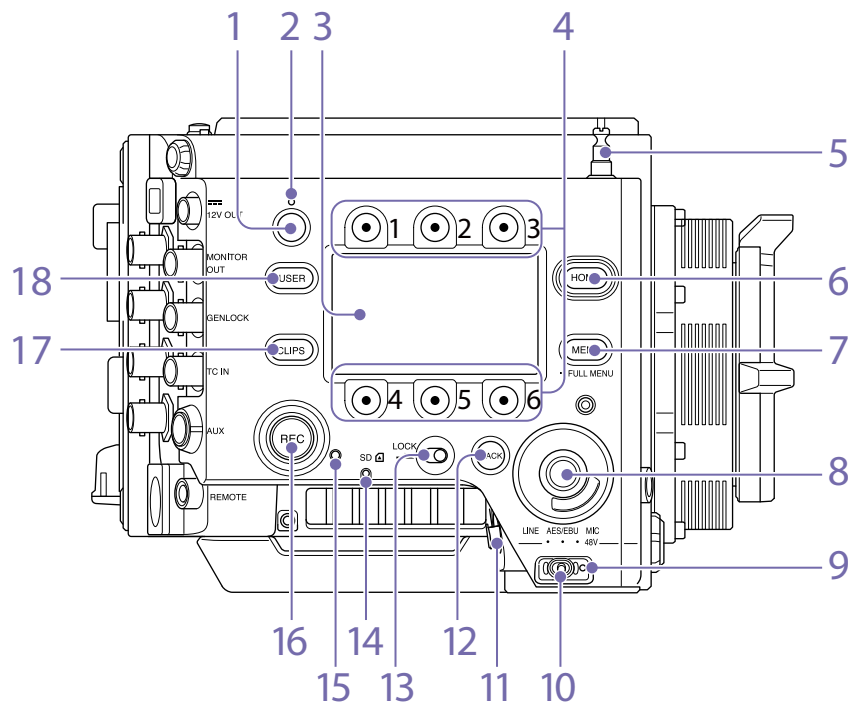
1. **ASSIGN (assignable) button 4 (page 37)**
   Assign functions using the EDIT page of the user functions screen (page 37).
   The assigned function toggles between on/off (enable/disable) or is activated with each press.

2. **ASSIGN (assignable) lamp 4 (page 37)**
   The lamp is lit orange when the assigned function is on (enabled) or activated, and not lit when the function is off (disabled).

3. **Sub display**
   Allows you to check the operation status of the unit and make various settings (page 29).

   With the Home screen displayed, press and hold the BACK button (page 9) and turn the SEL/SET dial to adjust the brightness of the sub display and mini display.
   The brightness can also be adjusted using Technical > Control Display > Brightness level (page 64) in the full menu.

4. **Sub display ITEM keys 1 to 6**
   Controls the operation of functions on the sub display (page 40).

5. **Tape measure hook**
   The tape measure hook is on the same plane as the image sensor. To measure the precise distance between the unit and the subject, use the tape measure hook as a reference. You can attach the end of a tape measure to the hook, and measure the distance from the subject.

6. **HOME button**
   Press to clear the display and return to the Home screen on the sub display (page 31).
   If pressed when the unit is in playback state, the unit transitions to shooting mode.

7. **MENU (menu display on/off) button (pages 40, 50)**
   Press the MENU button to display the menu screen on the sub display. Press and hold the MENU button for 2 seconds or longer to display the full menu screen on the sub display. Press the button during menu screen or full menu screen display to return to the previous screen display.

8. **SEL/SET (select/set) dial (MENU dial)**
   Changes the item selection or a setting within the menu (pages 31, 40, 50).

9. **+48V power lamp**
   Lights in green if the AUDIO IN switch is set to MIC and +48 V phantom power is supplied on the AUDIO IN connector. It is not lit if phantom power is not supplied.
   You can turn +48 V phantom power on/off using Audio category > Audio Details > Audio Configuration > Phantom Power +48V (page 62) in the menu.

10. **AUDIO IN (audio selector) switch**
    Select the input signal type corresponding to the audio source connected to the AUDIO IN connector.
    LINE: When connecting an external analog audio signal source
    AES/EBU: When connecting an external digital audio signal source
    MIC: When connecting a microphone

11. **AUDIO IN connector (XLR 5-pin)**
    Input external microphone or audio equipment signals.
    When the audio source is set to LINE or MIC using the AUDIO IN switch, this connector functions as an AUDIO IN CH-1 and AUDIO IN CH-2 connector.
    When the audio source is set to AES/EBU using the AUDIO IN switch, this connector functions as an AUDIO IN CH-1/2 and AUDIO IN CH-3/4 connector.

12. **BACK button**
    Cancels the menu setting and moves up one level in the menu hierarchy during menu display. Cancels the execution process or pending process during process execution/pending display (pages 31, 40, 50).

13. **LOCK switch**
    Locks the operation of the buttons on the Assistant side. When locked, the switch background LED lights in orange.

14. **ACCESS (SD card access) lamp (page 25)**

15. **REC ACTIVE lamp**
    The lamp is lit green when the REC button is enabled.

16. **REC (recording start/stop) button/lamp**
    Press to start recording, turning the REC lamp on. Press again to stop recording, turning the REC lamp off (page 77).
    The REC lamp flashes when a device error or warning occurs.

17. **CLIPS button**
    Press to display the clip list screen on the sub display to enable clip operations (page 67). Simultaneously, the clip screen is displayed on the mini display.
    To switch from playback mode to shooting mode, press the HOME button.

18. **USER button**
    Press to display the user function list on the sub display, and to operate the ITEM keys 1 to

5 user function buttons.
ITEM key 6 is the user function list EDIT button. Press this button to display the function selection screen for the user function buttons and assignable buttons. Press again when the user functions screen is displayed to return to the previous display (page 37).

Front
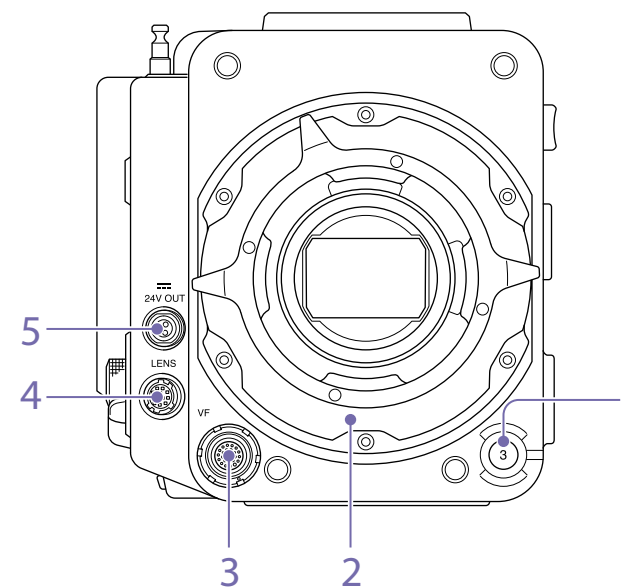
1. **ASSIGN (assignable) button 3 (page 37)**
   Assign functions using the EDIT page of the user functions screen (page 37).
   The assigned function toggles between on/off (enable/disable) or is activated with each press.

2. **PL lens mount adaptor (page 18)**

3. **VF (viewfinder output) connector (page 21)**

4. **LENS connector (12-pin)**
   Used only for iris control from a network-connected computer, smartphone, or tablet in firmware version 3.0 or later.

5. **24V OUT connector (DC OUT 24 V, Fischer 3-pin)**
   24 V DC power supply output connector (page 80).

The output voltage and maximum output current of this connector vary depending on the input voltage to the unit. The maximum current includes the output current from the 24V OUT connector on the rear panel (page 10).
11 V to 17 V input
    Output voltage : 24 V
    Maximum output current: 1.0 A

22 V to 32 V input
    Output voltage: Same as the input voltage
    Maximum output current: 2.0 A

Rear
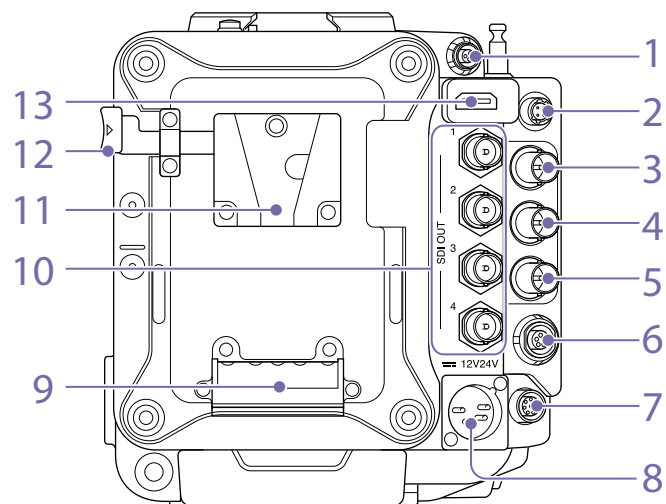
1. **24V OUT connector (DC OUT 24 V, Fischer 3-pin)**
   24 V DC power supply output connector (page 80).
   The output voltage and maximum output current of this connector vary depending on the input voltage to the unit. The maximum current includes the output current from the 24V OUT connector on the front panel (page 9).

   11 V to 17 V input
   Output voltage : 24 V
   Maximum output current: 1.0 A

   22 V to 32 V input
   Output voltage: Same as the input voltage
   Maximum output current: 2.0 A

2. **12V OUT connector (DC OUT 12V, Hirose 4-pin)**
   12 V DC power supply output connector (page 80).
   The output voltage and maximum output current of this connector vary depending on the input voltage to the unit.

   11 V to 17 V input
   Output voltage: Same as the input voltage
   Maximum output current: 1.0 A

   22 V to 32 V input
   Output voltage : 15 V
   Maximum output current: 0.8 A

3. **MONITOR OUT connector (BNC type)**
   HD SDI monitor signal output connector (page 80).

4. **GENLOCK (genlock input) connector (BNC type)**
   To genlock the unit to an external source or to lock the timecode of the unit to an external source, input an external reference signal. Digital signal and analog signal input are supported.
   Digital signal: 1.5G HDSDI interlaced signal
   Analog signal: HD sync, Analog

5. **TC IN (timecode input) connector (BNC type)**
   To lock the timecode of the unit to an external source, input a reference timecode signal.

6. **AUX connector (LEMO 5-pin)**
   Outputs the timecode signal (page 81).

7. **REMOTE (remote control) connector (8-pin)**
   Not supported in firmware version 3.0.

8. **12V/24V (DC power input) connector (page 15)**
   DC power supply input connector for external power supply to the unit. Supports 12 V and 24 V input voltages.
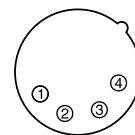
No.	Signal
1	GND
2	NC
3	NC
4	DC IN (11 V to 17 V or 22 V to 32 V)

9. **Battery attachment terminal (page 15)**

10. **SDI OUT 1 to 4 (serial digital output) connectors (BNC type) (page 80)**

11. **Battery pack mount (page 15)**

12. **Battery release lever (page 15)**

13. **HDMI OUT connector (page 80)**

Top

Bottom

Air vent
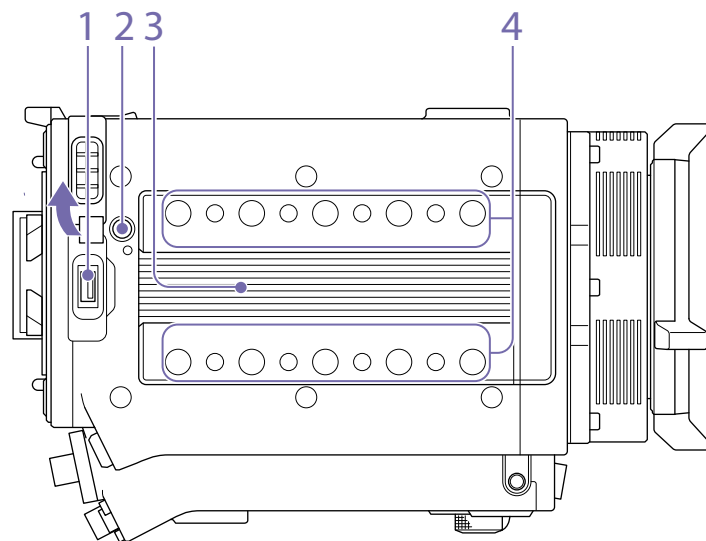
1. **External device connector**
   Used for updating an AXS-R7 AXS Recorder (option) when the AXS-R7 is attached to the unit (page 27) or for using camera wireless remote control (page 73) by connecting a CBK-WA02 Wireless LAN Adaptor (option).

2. **Release button (page 17)**

3. **Handle/VF attachment mount (page 17)**

4. **Accessory mounting screw holes**
   Type of screw: 1/4-20UNC (8)
   Type of screw: 3/8-16UNC (10)
   Length of engagement: 10 mm (3/8 inch) or less
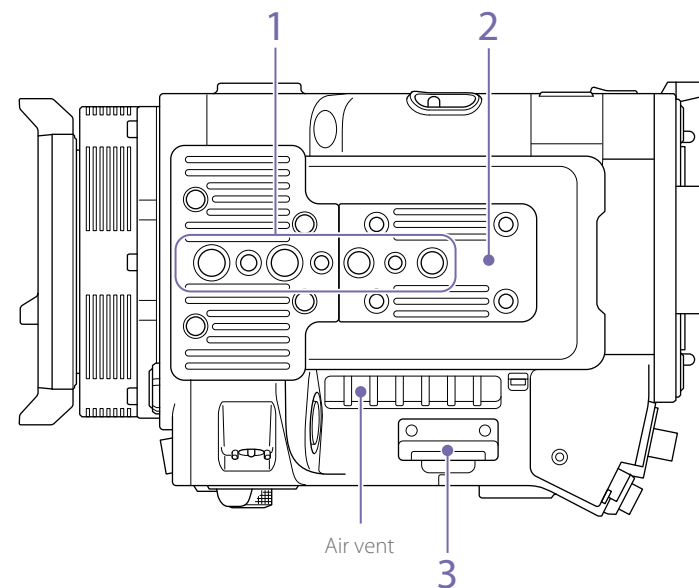
1. **Tripod plate attachment holes**
   Type of screw: 1/4-20UNC (2)
   Type of screw: 3/8-16UNC (4)
   Length of engagement: 9 mm (3/8 inch) or less

2. **Bottom cover**
   Remove the four hex screws to remove the cover.

3. **SD card slot (page 25)**

Viewfinder/Monitor Screen

During shooting (recording or standby) and playback, the information selected in Monitoring > OSD Appearance > Status Info A/B Setup (page 58) in the full menu is displayed.

Information displayed on the screen while recording
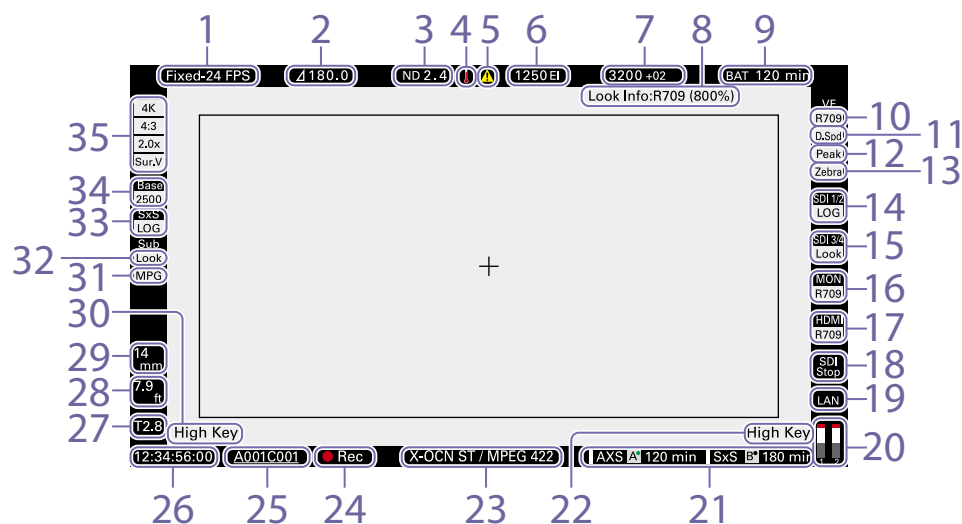
1. **Recording frame rate indicator**
   Displays the recording frame rate and project frame rate.

2. **Shutter angle/shutter speed indicator**
   Displays the shutter angle or shutter speed of the electronic shutter, according to the Technical > System Configuration setting in the full menu.

3. **ND filter indicator**
   Displays the density of the ND filter. The display value is a LOG (base 10) value (page 51).
   CLEAR
   0.3 (1/2)
   0.6 (1/4)
   0.9 (1/8)
   1.2 (1/16)
   1.5 (1/32)
   1.8 (1/64)
   2.1 (1/128)
   2.4 (1/256)

4. **Thermometer icon**
   Displayed when a high temperature warning message is issued.
   The description is displayed in the Info category in the menu.

5. **Warning icon**
   Displayed when other than a high temperature warning message is issued.
   The description is displayed in the Info category in the menu.

6. **Exposure index indicator**
   Displays the exposure index (EI) value.

7. **Color temperature indicator**
   Displays the color temperature and Tint value of the white balance.

8. **Look information display**
   Displays the selected Look (page 52).

9. **Battery capacity/voltage indicator**
   Displays the following indicators according to the type of battery power source.

Battery type	Display
InfoLithium battery	Battery remaining capacity and remaining recording time
Anton/Bauer battery	Remaining battery capacity (% indicator)
Other batteries	Input voltage

10. **VF LUT indicator**
    Displays the viewfinder LUT (page 52).

11. **VF Double Speed Scan indicator**
    Displays the on/off state of the function for doubling the frame rate of the viewfinder display.

12. **VF Peaking indicator**
    Displays the on/off state of the peaking function of the viewfinder display.

13. **VF Zebra indicator**
    Displays the on/off state of the zebra function of the viewfinder display (page 39).

14. **SDI OUT 1/2 connector LUT indicator**
    Displays the LUT setting of the SDI OUT 1/2 connectors (page 52).

15. **SDI OUT 3/4 connector LUT indicator**
    Displays the LUT setting of the SDI OUT 3/4 connectors (page 52).

16. **Monitor LUT indicator**
    Displays the LUT setting of the Monitor output (page 52).

17. **HDMI LUT indicator**
    Displays the LUT setting of the HDMI output (page 52).

18. SDI output REC trigger indicator

Displays the SDI output REC trigger status.

State		Display
Technical > System Configuration > SDI Rec Remote Trigger in the full menu	Recording command superimposed on the SDI output	
Off	–	(Blank)
HD SDI Remote I/F	Stop command	Top: SDI Bottom: Stop
	Rec command	Top: SDI Bottom: REC
Parallel Rec	Stop command	Top: SDI-P Bottom: Stop
	Rec command	Top: SDI-P Bottom: REC

19. Network connection status indicator

Displays the network connection status (LAN or Wi-Fi).

State	Display
Disconnected or other error (valid network connection settings)	Flashing
Connected (valid network connection settings)	On
Network connection function not used	Blank

20. Audio level meter indicators

Displays the levels of audio channels 1 and 2 while recording.

21. Recording media state/remaining capacity indicator for each media slot

Displays the state and remaining capacity of the media in SxS memory card slots A/B and AXS memory card slots A/B.

A ▮ mark on the left of "AXS" or "SxS" indicates the recording target media.

An indicator A• on the upper right of the slot A/B icon on the right of "AXS" or "SxS" indicates the playback target media (green indicator indicates media is being played).

A ⚠ icon is displayed for media if a condition occurs that could impact recording.

22. High Key/Low Key indicator (Monitor output)

Displayed when the Monitor output is High Key (screen for checking blown-out highlights) or Low Key (screen for checking blocked-out shadows) (displayed for Monitor Out output).

23. Recording media format (codec) indicator

Displays the format of the recording on an AXS memory card or an SxS memory card .

24. Recording status indicator

Displays the following recording operation states of the unit.

Display	Description
● Rec	Recording
Stby	Recording standby
● Cache	Picture cache recording standby

25. Clip name display

Displays the first 8 characters of the name of the next clip to be recorded in recording standby mode.

Displays the first 8 characters of the name of the clip currently being recorded when recording.

26. Time data display

Displays the duration or timecode, depending on the TC/Media category > TC Display setting in the menu (page 41).

27. Iris position indicator

Displays the iris position (only when a lens that is compatible with the iris setting display function is attached). The iris position indicator displays in 1/3 stop increments when using an E mount lens.

[Note]
The F-stop value is displayed instead of the T-stop value if the T-stop value cannot be obtained.

28. Focus position indicator

Displays the focus position (only when a lens that is compatible with the focus setting display function is attached).

29. Zoom position indicator

Displays the focal length of the zoom (displayed only when a lens that supports the zoom setting indicator is attached).

30. High Key/Low Key indicator (viewfinder output)

Displayed when the viewfinder output is High Key (screen for checking blown-out highlights) or Low Key (screen for checking blocked-out shadows) (displayed for viewfinder output).

31. Simultaneous recording status indicator

Displays the sub clip recording format in 1-slot simultaneous recording mode (page 78).

32. SxS Sub LUT indicator

Displays the LUT setting to register for a sub clip in SxS 1-slot simultaneous recording mode.

33. SxS LUT indicator

Displays the LUT setting for SxS recording.

34. Base ISO indicator

Displays the configured native sensitivity.

35. Effective picture size indicator

Displays the effective picture size and whether anamorphic de-squeeze conversion is applied, set using Project category > Imager Mode in the menu. In Surround View mode, a "Sur.V" icon is displayed below the anamorphic conversion factor icon (page 41).

Menu display and settings on the viewfinder screen

When a DVF-EL200 is attached to the unit, press and hold the Menu button on the DVF-EL200 to display the Monitoring > VF Display (page 61) and VF Function (page 61) setup menus on the viewfinder screen. This allows you to configure these functions while viewing the viewfinder screen.
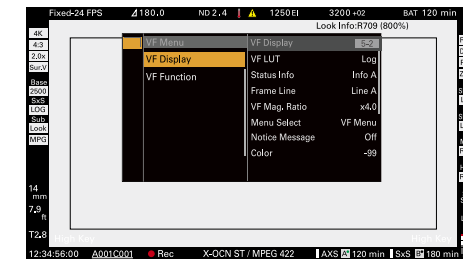
Information displayed on the playback screen

The following information is displayed on the playback picture.
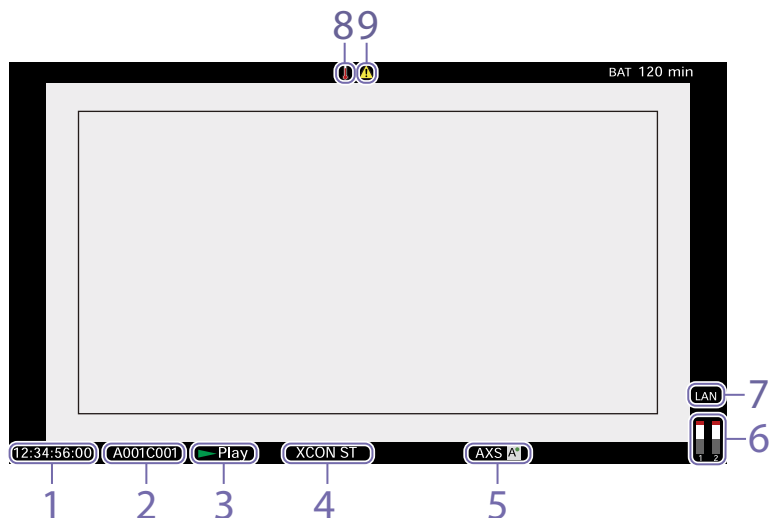
1. Time data display
Displays the duration or timecode, depending on the TC/Media category > TC Display setting in the menu (page 41).

2. Playback clip name display
Displays the first 8 characters of the name of the playback clip.

3. Playback status indicator
Displays the playback status.

4. Playback media format (codec) indicator
Displays the recording format (codec) of the playback clip.

5. Playback media indicator
Displays the type of recording media being played.
A 🔒 icon appears on the right if the memory card is write-protected.

6. Audio level meter indicators
Displays the levels of audio channels 1 and 2 during playback.

7. Network connection status indicator
Displays the network connection status (LAN or Wi-Fi).

State	Display
Disconnected or other error (valid network connection settings)	Flashing
Connected (valid network connection settings)	On
Network connection function not used	Blank

8. Thermometer icon
Displayed when a high temperature warning message is issued.
The description is displayed in the Info category in the menu.

9. Warning icon
Displayed when other than a high temperature warning message is issued. The description is displayed in the Info category in the menu.

Preparing a Power Supply

You can use a battery pack or AC power via an AC adaptor.
For safety, use only the Sony battery packs and AC adaptors listed below.

Lithium-ion battery pack
BP-FL75
BP-FLX75

AC adaptor
AC-DN2B
AC-DN10

Using a Battery Pack

Insert the battery pack into the battery pack mount (page 10) of the battery adaptor, then slide the battery pack down to lock it in place. To remove it, unlock the battery pack by sliding it up while pressing the battery release lever (page 10), then remove it.

[Notes]
- Before use, charge the battery pack with the battery charger.
- A warm battery pack immediately after use may not be able to be fully recharged.
- Remove the battery adaptor while supporting the unit by hand.

Checking the remaining battery charge

When recording or playback is in progress using the battery pack, the current battery remaining time and battery voltage are displayed on the sub display screen (page 29) and viewfinder/monitor screen (page 12).
The unit indicates the remaining usage time in minutes by calculating the available time with the battery pack if operation is continued at the current rate of power consumption.

If the remaining battery charge becomes low

If the remaining battery charge decreases to a certain level during operation, the remaining battery capacity indicator flashes and the REC lamp flashes to warn you.
If the remaining charge further decreases to a level at which operation cannot be continued, a battery-empty message appears.
Replace the battery pack with one that is fully charged.

To change the message levels

Change levels using Technical > Battery (page 64) in the full menu.

Using AC Power (DC IN Power)

The unit works with AC power using the AC-DN10 (optional) or AC-DN2B AC adaptor (optional) and CCDD-X2 DC cable (optional).
11 V to 17 V and 22 V to 32 V input voltage ranges are supported.

[Notes]
- When switching to the DC IN power supply during battery operation, use a power supply with a voltage in the range 12V to 17 V.
- When using a 22 V to 32 V power supply, first set the power switch to the OFF position before connecting the power supply.
- Do not switch directly from a 11 V to 17 V power supply to a 22 V to 32 V power supply, or vice versa. This may cause a malfunction.

Using a Battery Pack and DC IN Power Supply Together

Whenever an active power supply is applied using a battery pack and a DC IN power supply, the DC IN power supply takes precedence.

[Note]
When the power supply switches from battery operation to the DC IN power supply, operation of the unit may stop if the following occurs.
- Chattering of the connector contacts when inserting the DC connector
- Voltage drop when switching between power supplies (more prevalent when the external load is greater)

Setting the Clock

When you use the unit for the first time, the initial setup screen appears on the sub display when the power is turned on.
Set the date and time of the built-in clock using this display.

Time Zone

The value shows the time difference from UTC (Coordinated Universal Time). Change the setting if needed.

[Note]
When Time Zone is changed, the clock setting changes according to the time difference.

Setting the Date and Time

Turn the MENU dial (page 8) to move the cursor, then press the MENU dial to set each menu item. When you press the MENU dial when the cursor is on "Set," the setting display disappears and the clock setting is completed.
After the initial setup screen disappears, you can change Time Zone and date/time settings using Maintenance > Clock Set (page 65) in the full menu.

[Notes]
- If the clock setting is cleared because the backup battery fully discharged when no power was supplied (no battery pack and no DC IN connection), the initial setup display will be displayed when you next turn the unit on.
- While the initial setup display is shown, no other operation, except turning the power off, is permitted until you finish the setting for this display.

Attaching the VF Attachment and Handle

Attaching the VF Attachment

1 Slide the VF attachment on in the direction of the arrow to attach it.

2 Position the VF attachment in the desired front/rear position, then turn the lock lever to secure it in position.
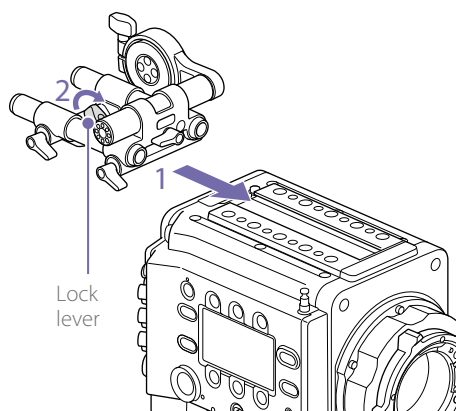
Lock lever

[Notes]
- You can also attach the VF attachment in the front/ rear or left/right orientation.
- If the lock lever is difficult to tighten or loosen, you can use a hex wrench (3 mm) on the lock screw on the top of the lock lever.

To remove the VF attachment

Turn the lock lever to loosen, press the release button and slide the VF attachment off in the reverse direction from when attaching it.

Attaching the Handle

1 Slide the handle on in the direction of the arrow to attach it.

2 Position the handle in the desired front/rear position, then turn the lock lever to secure it in position.

Hex socket bolt

Lock screw
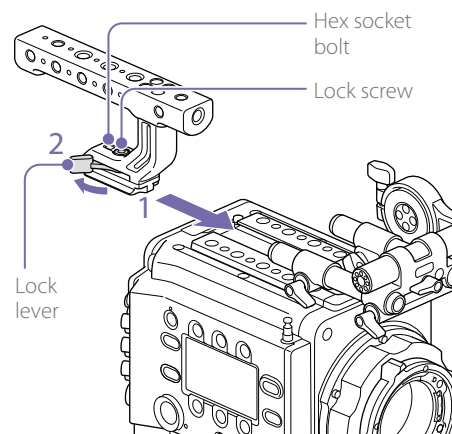
Lock lever

[Notes]
- You can also attach a lock screw using a hex wrench (5 mm) to secure it in position.
- If the lock lever on the handle becomes loose during use, you can secure the handle by tightening a hex socket bolt (2 mm) beside the lock screw.
- You can also attach the handle in the reverse orientation.

To remove the handle

Turn the lock lever to loosen, press the release button and slide the handle off in the reverse direction from when attaching it.

Mounting a Lens and Adjusting the Flange Focal Length

Recommended PL mount lens (Super 35mm size)

SCL-PK6/F, SCL-PK6/M (set of 6 lenses,
20 mm/25 mm/35 mm/50 mm/85 mm/135 mm)
SCL-PK3/F, SCL-PK3/M (set of 3 lenses,
20 mm/25 mm/135 mm)
SCL-P11X15

Recommended E mount lens

SELP28135G, SEL1635GM, SEL2470GM,
SEL70200GM, SEL100400GM, SEL1224G,
SEL35F14Z, SEL50F14Z, SEL85F14GM, SEL90M28G,
SEL100F28GM

[Note]
Control may not be supported with some E mount lenses.
Use a recommended lens.

*For details about available lenses for the unit, contact a Sony
service representative.*

[CAUTION]

Do not leave the lens facing the sun. Direct
sunlight can enter through the lens, be focused in
the unit, and cause fire.

[Notes]
- Turn the unit off before attaching or removing the lens
  and adapter.
- A lens is a precision part. Do not place the lens down with
  the mount side facing down. Attach the cap supplied
  with the lens.
- The lens interface of the unit is configured by factory
  default for an SCL-P11X15 and lenses with Cooke type
  connector. To use an SCL-PK6, SCL-PK3, or other lenses
  that do not have a Cooke type connector, set Technical
  > System Configuration > Lens Interface (page 62)
  to Off in the full menu. If this setting is not correct, an
  alert message appears when the unit is turned on after
  attaching the lens.

Attaching a PL Mount Lens

1 Remove the mount cover from the lens mount
by turning the PL mount lever
counterclockwise.
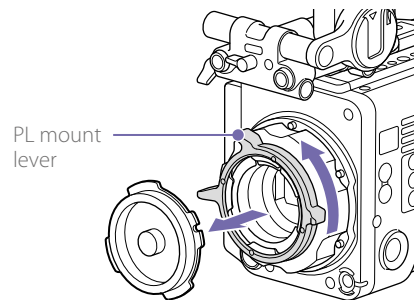
PL mount
lever

[Note]
Turn the PL mount lever counterclockwise to the
stopper position.

2 Insert the lens into the lens mount by aligning
the concave part of the lens with the
positioning pin on the upper right of the lens
mount.

3 Secure the lens by turning the PL mount lever
clockwise while holding the lens.
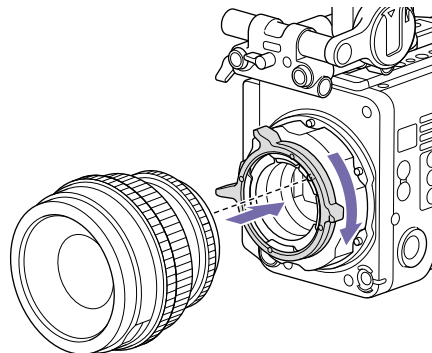
[Note]
Do not turn the lens when attaching the PL mount lens.
It may cause damage to the hot shoe pin.

To attach a Cooke /i lens

Align the contacts on the lens with the hot shoe of
the unit. There are two connectors on the side of
the lens adaptor, and either can be used.

To remove the lens

1 Turn the PL mount lever counterclockwise
while holding the lens from underneath.

2 Pull the lens forward.

[Note]
If another lens will not be attached soon, carefully align
the concave part of the mount cover, then secure the
mount cover by turning the PL mount lever clockwise.

Adjusting the Flange Focal Length

The unit is shipped with the flange focal length
already adjusted. If you need to adjust the flange
focal length, remove the lens mount, and change
the shims with those of the appropriate thickness.
You can adjust the thickness by ±0.1 mm in 0.01
mm increments.

Shims

The following shims are supplied with the unit.
0.05 mm × 1 (circular)
0.01 mm × 15 (1/3 arc)
1/3 arc shims should always be used as a set of
three shims. Insert shims to increase the flange
focal length. The unit is shipped with the flange
focal length already adjusted using the following
three types of shims.
0.10 mm (circular)
0.05 mm (circular)
0.01 mm (1/3 arc)
A seal is attached showing the shim thickness
when shipped.

Adjusting the flange focal length

1   Remove the six Torx screws and remove the PL mount flange.

PL mount flange
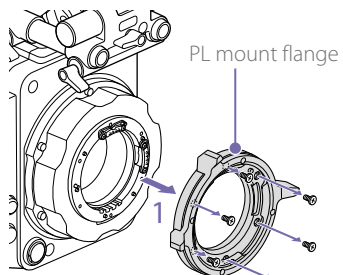
2   Loosen the four Phillips screws on both sides of the PL connectors (two locations), and remove the PL connectors and PL connector plates.
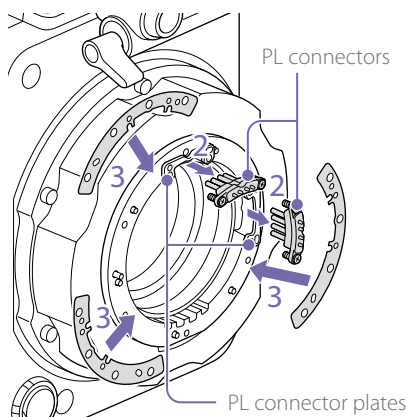
3   Attach shims to the PL mount adaptor (three locations).

PL connectors

PL connector plates

When using 1/3 arc shims
Attach shims so that they have the same thickness in all three locations.
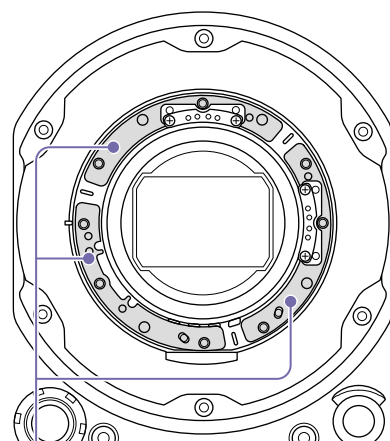
Shims

When using circular shims
Attach with the surface that has markings on it facing the front.

Markings

Markings

4   Reattach the PC connectors (two locations) to their original positions, and tighten the four Phillips screws with 0.18 N·m tightening torque.

5   Reattach the PL mount flange in its original position, and tighten the six Torx screws to a tightening torque of 0.35 N·m using a T8 torque wrench.

Cleaning the Filter

To clean the filter, first remove the adaptor. Exercise care when wiping the adaptor center part (shaded part) with a cloth or other material to prevent fibers adhering to surfaces. If fibers are adhering, wipe off using a soft brush.
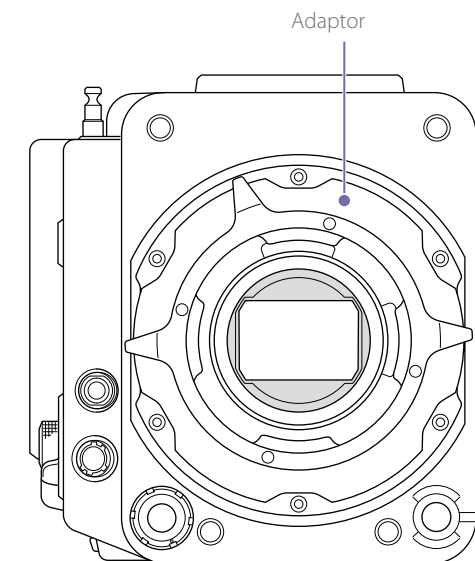
Adaptor

Removing the PL Lens Adaptor

Remove the PL lens adaptor when you want to mount an E mount lens to the unit. Attachment/removal is performed with the rear side of the unit facing down.
Remove the six hex screws (2.5 mm) and remove the PL lens adaptor.
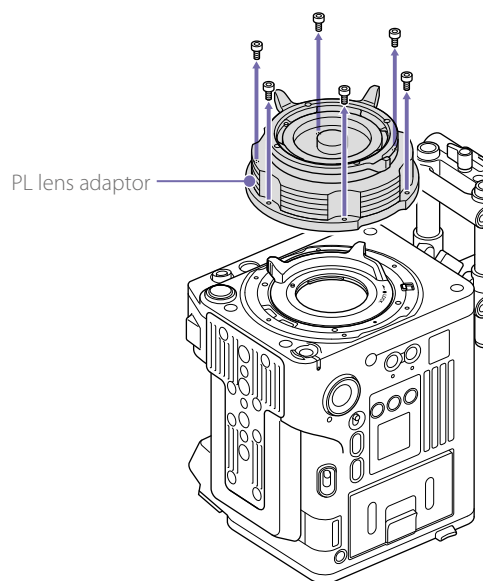
PL lens adaptor

[Notes]
- Removing the battery and placing the rear side of the unit face down provides stability.
- When attaching/removing the adaptor, take care not to touch the connector contacts of the unit and PL lens adaptor.

To attach the PL lens adaptor

1 Check that the mount lever is in the locked position.

Mount lever
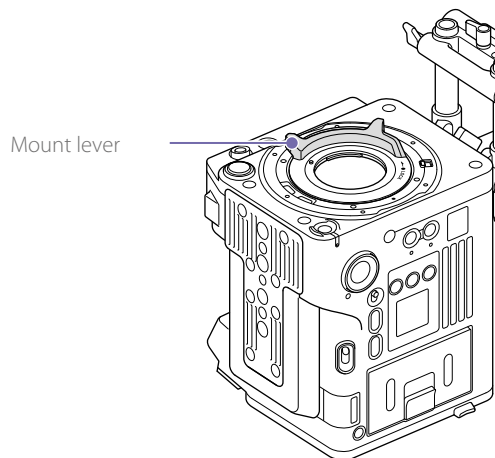
2 Place the PL lens adaptor back in its original position, insert the six hex screws (2.5 mm), and tighten the screws to a tightening torque of 0.8 ± 0.12 N·m using a hex wrench (2.5 mm).

Attaching an E Mount Lens

1 Remove the PL lens adaptor (page 20).

2 Push the lock switch up, and turn the mount lever clockwise to release the lock.

Mount lever

Lock switch
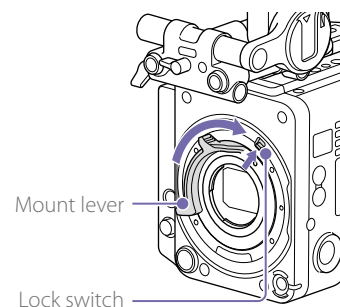
3 Align the mounting marks (white) on the unit and lens mount, and then push the lens into the mount.

4 Secure the lens by turning the mount lever counterclockwise while holding the lens.

Mounting marks (white)
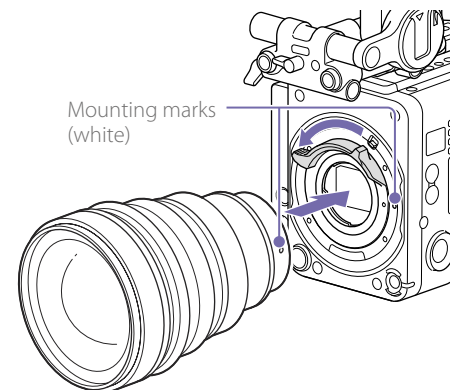
[Note]
When an E mount lens is connected, operation using a 12-pin lens connector is not guaranteed.

To remove the lens

1 Push the lock switch up, and turn the mount lever clockwise to release the lock.

2 Pull the lens forward.

[Note]
If another lens will not be attached soon, carefully align the concave part of the mount cover, then secure the mount cover by turning the mount lever counterclockwise.

Attaching a Viewfinder

Available viewfinders for the unit
DVF-EL200: OLED color viewfinder
DVF-L700: LCD color viewfinder

Viewfinders are available separately.
This section describes attachment of the DVF-EL200 as an example.

For details about attaching each viewfinder, refer to the operating instructions of the viewfinder.

[CAUTION]
Do not leave the unit with the eyepiece of the viewfinder facing the sun. Direct sunlight can enter through the eyepiece, be focused in the viewfinder, and cause fire.

[Notes]
- Attach/remove the viewfinder while the unit is turned off.
- A VF cable (A-2201-632 or A-2201-633-A) is required in order to attach the DVF-L700. Also, turn the unit on after setting the POWER switch of the DVF-L700 to the ON position.

Attaching a Viewfinder

1 Align the viewfinder shoe with the groove of the viewfinder mount on the VF attachment, and attach the viewfinder.

2 Turn the viewfinder lock lever in the LOCK direction to secure it in position.

Lock lever
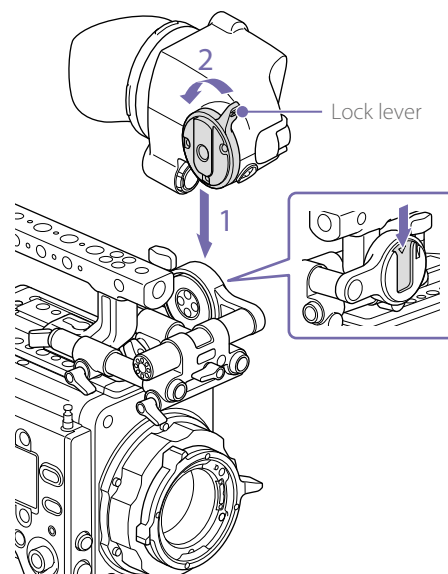
3 Connect the viewfinder and unit using the VF connection cable.
Viewfinder side:
Position the connector with the mark (red) at the top, and fully insert the connector.
Camera side:
Alight the concave part of the VF connector with the connector mark (red), and fully insert the connector.

Clamper
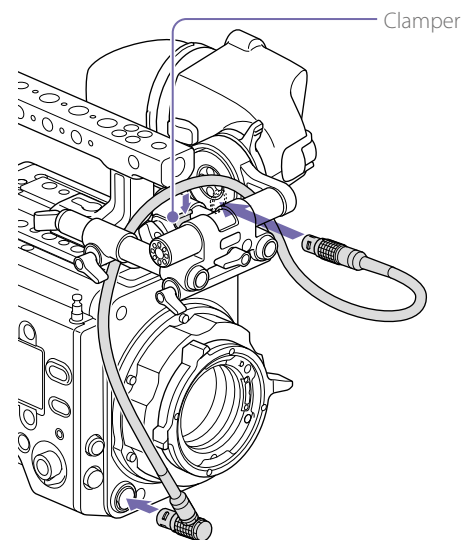
[Note]
Secure the cable in the clamper as required.

To remove the viewfinder

1 Disconnect the VF connection cable from the viewfinder and unit.

2 Turn the lock lever in the direction opposite to LOCK, then remove the viewfinder from the VF attachment.

Adjusting the Viewfinder Position

To adjust the front/rear position

1 Loosen one or both of the front/rear rod lock levers of the VF attachment.

2 Slide the VF attachment forward/rearward to adjust the viewfinder position.
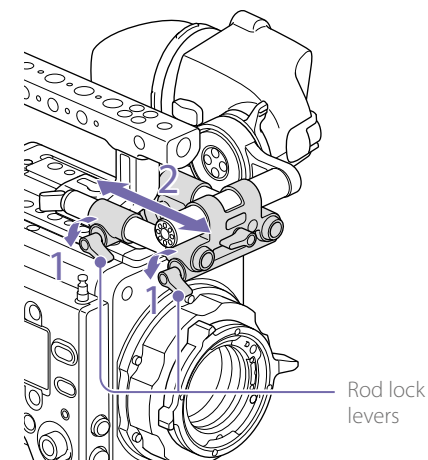
Rod lock levers

3 Tighten the rod lock levers.

[Note]
If a rod lock lever is difficult to turn, pull the lever out, turn it to a position where it is easier to operate, and then push the lever back in.

To adjust the left/right position and height (angle)

1   Loosen the rod lock lever at the front of the VF attachment.

2   Slide the VF attachment rod left/right and turn the rod up/down to adjust the viewfinder position.

Lock screw

Rod lock lever

3   Tighten the rod lock lever.

[Note]
When the rod lock lever is loosened, adjust the lock screw using a hex wrench (3 mm) to prevent the viewfinder from falling down.

To adjust the viewfinder angle

You can adjust the angle of the viewfinder while shooting.

1   Loosen the rotation lock lever on the viewfinder mount.
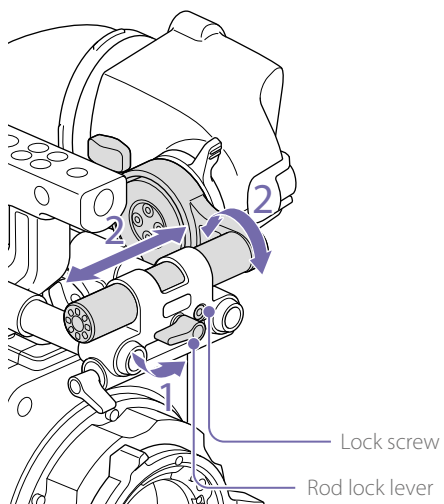
2   Turn the viewfinder up/down to adjust the angle.

Rotation lock lever
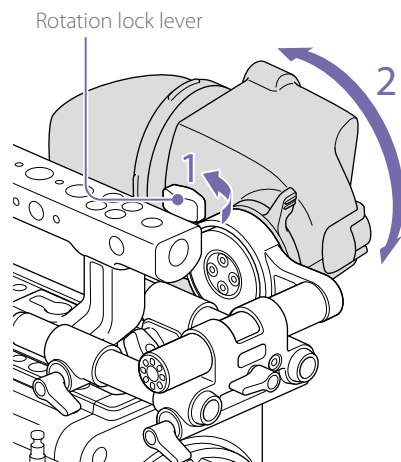
3   Tighten the rotation lock lever.

Handling SxS Memory Cards

This unit records audio and video on SxS memory cards (optional) loaded in the card slots.

About SxS Memory Cards

Use the following Sony SxS memory cards or XQD memory cards.*
* When using an XQD memory card, the XQD ExpressCard adaptor (QDA-EX1) is required.

The supported memory cards differ depending on the recording format.

SxS PRO+
SBP-256D/E, SBP-128B/C/D/E, SBP-64B/C/D/E:
Supported for all recording formats

SxS PRO
SBP-64A, SBP-32:
MPEG 1920×1080i, HD ProRes 422,
HD ProRes 422 Proxy

SxS-1
SBS-128G1B/C, SBS-64G1A/B/C, SBS-32G1A/B/C:
MPEG 1920×1080i, HD ProRes 422,
HD ProRes 422 Proxy

XQD memory card S series, G series
QD-S64E, QD-S32E, QD-G128A/E, QD-G64A/E,
QD-G32A/E, QD-G120F, QD-G240F: Supported for all recording formats

XQD memory card N series, M series
QD-N64, QD-M128A, QD-M64A, QD-M32A:
MPEG 1920×1080i, HD ProRes 422 Proxy

Operations are not guaranteed with other memory cards.
These memory cards comply with the ExpressCard standard.

For details on using SxS memory cards and usage-related precautions, refer to the instruction manual for the SxS memory card.

- SxS, SxS PRO, and SxS-1 are trademarks of Sony Corporation.
- XQD is a trademark of Sony Corporation.
- The ExpressCard word mark and logo are owned by Personal Computer Memory Card International Association (PCMCIA) and are licensed to Sony Corporation.
- ProRes is a registered trademark of Apple Inc.

All other trademarks are the property of their respective owners.

Inserting an SxS Memory Card

1 Open the cover of the card slot block (page 8).

2 Insert the SxS memory card into the slot with the SxS label facing to the right.
The ACCESS lamp (page 7) lights in red then changes to green once the memory card is ready for use.

3 Close the cover.

ACCESS lamp status

Card slots A and B each have an ACCESS lamp that indicate the slot status.

Lamp	Slot status
Lights in red	Accessing the SxS memory card (writing/reading data)
Lights in green	Standby (ready for recording or playback using the SxS memory card)
Off	• No SxS memory card is loaded. • The loaded card is invalid. • An SxS memory card is loaded, but the other slot is selected.

Removing an SxS Memory Card

1 Open the cover of the card slot block.

2 Pull out the SxS memory card.

[Note]
Data integrity is not guaranteed if the power is turned off or a memory card is removed while it is being accessed. Data on the card may be destroyed. Be sure that its ACCESS lamp is lit in green or off when you turn off the power or remove a memory card.

Switching Between SxS Memory Cards

When SxS memory cards are loaded in both slot A and slot B, you can press the SLOT SELECT button (page 8) to select the SxS memory card to use.
If a card becomes full, recording continues after automatically switching to the second card.

[Note]
The SLOT SELECT button is disabled while recording/playback is in progress. The memory cards are not switched even if you press the button.

Formatting (Initializing) SxS Memory Cards

When an unformatted SxS memory card or an SxS memory card formatted in another specification is loaded, a message notifying you that the media has a different file system appears. In this case, format the memory card in the following way.

1 Select TC/Media category > Format Media in the menu.

2 Select SxS Slot A (slot A) or SxS Slot B (slot B), then press the MENU dial.
A confirmation screen prompting whether to format the card appears.

3 Press and hold ITEM key 1 and ITEM key 3 for 3 seconds to execute formatting.
Formatting starts, a message is displayed during execution, and the ACCESS lamp lights in red.
When formatting ends, a completion message appears. Press the MENU dial to dismiss the message.

If formatting fails

A write-protected SxS memory card or memory card that cannot be used with this unit will not be formatted.
A warning message is displayed. Replace the card with an appropriate SxS memory card, according to the instructions in the message.

[Note]
All the data, including recorded pictures and setup files, are erased when a memory card is formatted.

Formatting while recording

Even while recording, the SxS memory card loaded in the other card slot can be formatted.

Checking the Remaining Recording Time

While shooting (recording or standby), you can check the remaining capacity on the SxS memory cards loaded in each slot using the recording media remaining capacity indicator on the Home screen of the sub display (page 29) or the viewfinder/monitor screen (page 12).
The available time for recording with the current video format (recording bit rate) is calculated according to the remaining space on each card and displayed in time units of minutes.

[Note]
A (🔒) icon appears if a memory card is write-protected.

Exchanging an SxS memory card

- If the total remaining time on the inserted memory cards during recording becomes less than 5 minutes, the remaining media capacity indicator flashes, the REC lamp flashes, and a beep sound is emitted to warn you. Replace the cards with those that have sufficient space.
- If you continue recording, the message "Media Full" appears, and recording stops when the total remaining recording time falls to 0.

[Note]
Up to approximately 600 clips can be recorded on one SxS memory card.
The display of remaining recording time changes to "0" and the message "Media Full" appears when the clip limit is reached.

Restoring an SxS Memory Card

If for any reason an error should occur in a memory card, the card must be restored before use.
If an SxS memory card that needs to be restored is loaded, a message prompting you to execute the restore operation is displayed on the sub display.
To start the restore process, select Execute by turning the MENU dial, then press the MENU dial. The restoration starts.
During execution, a message is displayed and the ACCESS lamp lights in red.
When restoration ends, a completion message appears. Press the MENU dial to dismiss the message.

If restoration fails

- A write-protected SxS memory card, or one on which an error occurred, cannot be restored. For such a card, a warning message is displayed. Release the write protection or replace the card, according to the instructions in the message.
- An SxS memory card on which an error occurred may become usable again when reformatted.
- In some cases, some clips can be restored while others cannot. Playback of the restored clips becomes possible again.
- The following operation may restore an SxS memory card for which the message "Could not Restore Some Clips" is repeatedly displayed each time you try the restoration process.
  - [1] Copy the required clips to another SxS memory card.
  - [2] Format the unusable SxS memory card on the unit.
  - [3] Copy the required clips back to the newly formatted SxS memory card.
  - [4] Update the management file as described below.

[Note]
For restoration of media recorded with this unit, be sure to use this unit.
Media recorded with a device other than this unit or with another unit of different version (even of the same model) may not be restored using this unit.

Updating the management file

If clips cannot be played back, updating the management file on the card may improve the situation.
Use TC/Media > Update Media (page 57) in the full menu to update the management file.
If you write an XAVC file that is imported by RAW Viewer V2.2 or later to the "XDROOT\Clip" directory of an SxS memory card directly, that file can become playable by executing Update Media.

Handling SD Cards for Saving Configuration Data

You can store the configuration file of the camera on an SD card (optional). The stored file can be loaded from the SD card.

Supported SD Cards

SDHC memory cards* (Speed Class: 4 to 10, non-UHS, Capacity: 2 GB to 32 GB)
SD memory cards* (File system: FAT 16, Capacity: up to 2 GB)
* Referred to as "SD cards" in this manual.

Inserting an SD Card

Insert an SD card into the SD card slot (page 11). The ACCESS lamp (page 9) lights in red then changes to green once the memory card is ready for use.

ACCESS lamp status

Lamp	Slot status
Lights in red	Accessing the SD card (writing/reading data)
Off	• No SD card is loaded. • The loaded card is invalid.

Removing an SD Card

Press the SD card in slightly, then remove the card.

[Notes]
- Data integrity is not guaranteed if the power is turned off or a memory card is removed while it is being accessed. Data on the card may be destroyed. Be sure that its ACCESS lamp is lit in green or off when you turn off the power or remove a memory card.
- Make sure that the card does not pop out when inserting or removing it.

Formatting (Initializing) an SD Card

SD cards must be formatted the first time they are used in the unit.
SD cards for use in the unit should be formatted using the format function of the unit. It is also necessary to format an SD memory card if a caution message is displayed when the card is loaded.
If an SD card that was formatted in an unsupported format is loaded in the unit, a file system mismatch message is displayed.

1 Select TC/Media category > Format Media > SD Card in the menu, then press the MENU dial.
A confirmation screen prompting whether to format the card appears.

2 Press and hold ITEM key 1 and ITEM key 3 for 3 seconds to execute formatting.
Formatting starts, a message is displayed during execution, and the ACCESS lamp lights in red.
When formatting ends, a completion message appears. Press the MENU dial to dismiss the message.

[Note]
All data is erased when an SD card is formatted, and the data cannot be restored.

To use media formatted with this unit in the slots of other devices

Make a backup of the media, then format it using the other device.

Using with AXS-R7

You can record video/audio in RAW or X-OCN to an AXS-R7 AXS (Access Memory Card System) Recorder (optional) by attaching the recorder to the unit.

[Note]
To attach an AXS-R7 to the unit, the firmware version of the AXS-R7 may need to be updated according to the version of the unit (page 27). The following shows the version compatibility.

Version of unit	Version of AXS-R7
1.0, 1.01	1.1
2.01	2.0
3.0	3.0

Attaching the AXS-R7

[Note]
Attach/remove the AXS-R7 while the unit is turned off.

1 Unscrew the four hex screws (3 mm) on the rear of the unit, and remove the battery plate.

Battery plate
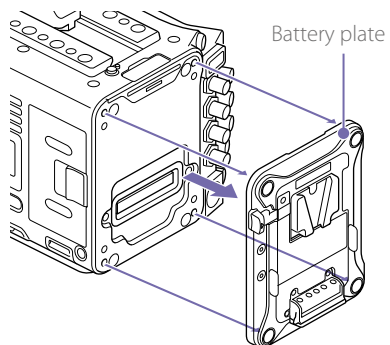
2 Unscrew the four hex screws on the rear of the AXS-R7, and remove the docking module from the AXS-R7.

Docking module
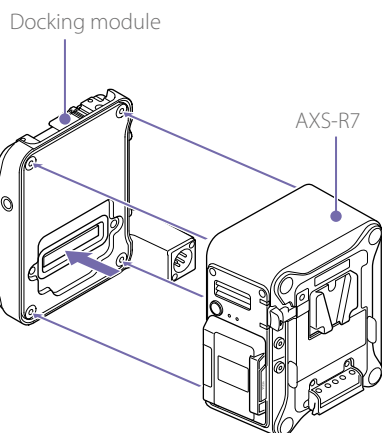
AXS-R7

3 Attach the AXS-R7 to the unit, and tighten the four hex screws.
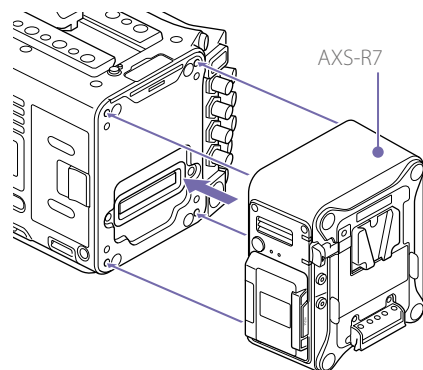
AXS-R7

To remove the AXS-R7

Unscrew the four hex screws, and remove the AXS-R7.

Inserting an AXS Memory Card

1 Press the memory card slot cover open button to open the cover.
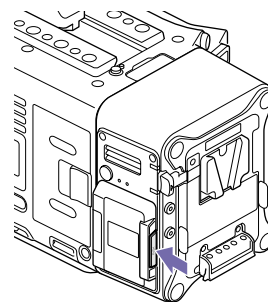
2 Insert the AXS memory card into the card slot with the label facing as indicated below.

Label
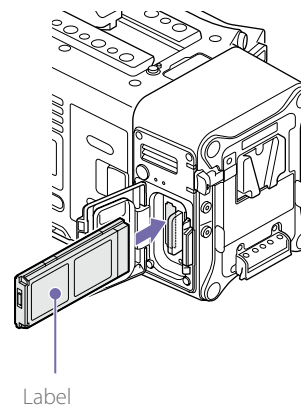
3 Close the cover.

Switching Between AXS Memory Cards

When two AXS memory cards are loaded, press the SLOT SELECT button of the AXS-R7 to switch active slot.

SLOT SELECT button
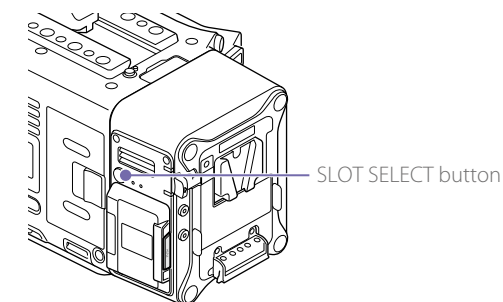
Removing an AXS Memory Card

Open the memory slot cover of the AXS-R7, and pull out the AXS memory card.

[Note]
Data integrity is not guaranteed if the power is turned off or an AXS memory card is removed while it is being accessed. Data on the card may be destroyed. Be sure that its ACCESS lamp is lit in green or off when you turn off the power or remove a memory card.

Recording to an AXS Memory Card

You can select the format for recording to an AXS memory card using Project category > AXS Rec Format (page 41) in the menu.
During AXS standalone recording on the AXS-R7, recording automatically switches to the second AXS memory card when the first card becomes full.

If using an S24 AXS memory card with AXS Rec Format set to X-OCN XT, the following restrictions apply depending on the Imager Mode setting.

Imager Mode	Description
6K 6048×4032 3:2	Cannot record, regardless of the shooting frame rate setting. When an S24 AXS memory card is detected, a warning message is displayed.
6K 6054×3272 1.85:1	Cannot record if the shooting frame rate is set to 25 fps or higher (including Fixed-30). When an S24 AXS memory card is detected, a warning message is displayed.
6K 6054×3192 17:9	
4K 4096×3024 4:3 (excluding Surround mode)	Cannot record if the shooting frame rate is set to 30 fps or higher (including Fixed-48). When an S24 AXS memory card is detected, a warning message is displayed.

Formatting (Initializing) an AXS Memory Card

AXS memory cards must be formatted the first time they are used in the AXS-R7 attached to the unit.

Use the format function of the unit to format AXS memory cards for use in the AXS-R7. It is also necessary to format an AXS memory card if a caution message is displayed when the unit is turned on with the AXS-R7 attached.
If an AXS memory card that was formatted in a format not supported by the AXS-R7 is loaded, a file system mismatch message is displayed.

1 Select TC/Media category > Format Media in the menu, then press the MENU dial.

2 Select AXS Slot A (slot A) or AXS Slot B (slot B). A confirmation screen prompting whether to format the card appears.

3 Press and hold ITEM key 1 and ITEM key 3 for 3 seconds to execute formatting.
Formatting starts, a message is displayed during execution, and the ACCESS lamp lights in red.
When formatting ends, a completion message appears. Press the MENU dial to dismiss the message.

[Note]
All data is erased when a memory card is formatted, and the data cannot be restored.

Checking the Remaining Recording Time

While shooting (recording or standby), you can check the remaining capacity on a loaded AXS memory card using the recording media remaining capacity indicator on the Home screen of the sub display (page 29) or the viewfinder/monitor screen (page 12).
The available time for recording with the current video format (recording bit rate) is calculated according to the remaining space of each card and displayed in time units of minutes.

[Note]
A 🔒 icon appears if an AXS memory card is write-protected.

Restoring an AXS Memory Card

If for any reason an error should occur in a memory card, the card must be restored before use.
If an AXS memory card that needs to be restored is loaded, a message prompting you to execute restoration is displayed.
To start the restore process, select Execute by turning the MENU dial, then press the MENU dial. The restoration starts.
During execution, a message is displayed and the ACCESS lamp lights in red.
When restoration ends, a completion message appears. Press the MENU dial to dismiss the message.

If restoration fails

- A write-protected AXS memory card or one on which an error occurred cannot be restored. For such a card, a warning message is displayed. Release the write protection or replace the card, according to the instructions in the message.
- An AXS memory card on which an error occurred may become usable again when reformatted.
- In some cases, some clips can be restored while others cannot. Playback of the restored clips becomes possible again.

[Note]
For restoration of media recorded with this unit, be sure to use this unit.
Media recorded with a device other than this unit or with another unit of different version (even of the same model) may not be restored using this unit.

Updating the management file

If clips cannot be played back, updating the management file on the card may improve the situation.
Use TC/Media > Update Media (page 57) in the full menu to update the management file.

Updating the AXS-R7 Firmware Version

You can update the version of the AXS-R7 firmware with the AXS-R7 attached to the unit.

[Notes]
- The firmware version of the unit must be 2.0 or later in order to perform this operation.
- Set AXS Rec Format (page 41) to Rec Off before performing this operation.

1 Prepare a USB flash drive updater according to the update procedure for the AXS-R7.

2 Insert the USB flash drive updater in the external device connector (page 11).

3 Execute the AXS-R7 update function using Maintenance > Firmware > FW Update-AXS-R7 (page 66) in the menu.
The version update process takes about 15 minutes. When the version update process finishes, the unit automatically restarts and "Firmware Upgrade Done" is displayed.

Sub Display

The sub display displays the Home screen, clip list screen, playback screen, menu screen, full menu screen, and user functions screen.
You can switch between the screens on the sub display using the buttons on the Assistant side of the unit.

User functions screen

User 1 SDI Frame Line	User 2 Monitor Status Info	User 3 Monitor LUT bypass
On	On	Off

| T2.8 | TCG 00:00:00:00 | Stby |

Off Monitor Highlight Clip Ind	Auto Fan Mode	Edit
User 4	User 5	

HOME button   USER button   USER button   CLIPS button

Home screen

FPS	EI 2500	Shutter
Fixed-24	2500	180.0

TCG 00:00:00:00 23.98fps 3.8K 16:9
● Rec   DC IN 15.0V Reel A001 Shot C004
ǁ SxS A 120 min   XAVC QFHD C480 Sub
SxS B 180 min   1 2

| 1,8 ND | SDI 3/4: Look SxS: Log | 3200+03 WB |

Clip list screen

SxS / AXS   ⬆   Play

SxS A
TCR 00:00:00:00   A001C001_180101CQ   🔒 Sub
Dur 00:00:01:56   A001C002_180101G7   🔒 Sub
23.98fps 30FPS   A001C003_180101HR   🔒 Sub
                    A001C004_180101WK   🔒 Sub
XAVC QFHD C480   A001C005_180101S8   🔒 Sub
2018/1/1 11:30   A001C006_180101GF   🔒 Sub
002/010   ⬇

Playback screen

F Rev   Play/Pause   F Fwd
◀◀   ▶ǁ   ▶▶

Dur 00:00:00:00 23.98fps
▶▶ x24 DC IN 15.0V 60FPS
SXS A 🔒 002/010 XAVC QFHD C480
A001C002_160328WW 🔒 Sub   1 2

ǀ◀◀   ■   ▶▶ǀ
Prev   Stop/Clips   Next

HOME button   MENU button   MENU button   CLIPS button

HOME button
CLIPS button

MENU button   USER button

Menu screen

Project	TC/Media	Monitoring
Imager Mode		4K 17:9
Project Frame Rate		23.98fps
Color Space		S-Gamut3.Cine/SLog3
AXS Rec Format		Rec Off
SxS Rec Format		XAVC 4K Class300
Sub Rec Format		Rec Off
Audio	Info	🎬 Project Details

Full menu screen

📷 Shooting	Shooting
🎬 Project	Shutter
📼 TC/Media	ND
➡ Monitoring	Exposure Index
🎵 Audio	White Balance
🔧 Technical	LUT Select
⚙ Maintenance	Look

Home Screen

Press the HOME button on the Assistant side to display the Home screen. You can check the status of the unit and set basic settings for the unit on the Home screen.

Item name/Setting value/Function display area

Status display area

Item name/Setting value/Function display area

ITEM key 1 ITEM key 2 ITEM key 3

1 2 3

4 5 6

ITEM key 4 ITEM key 5 ITEM key 6
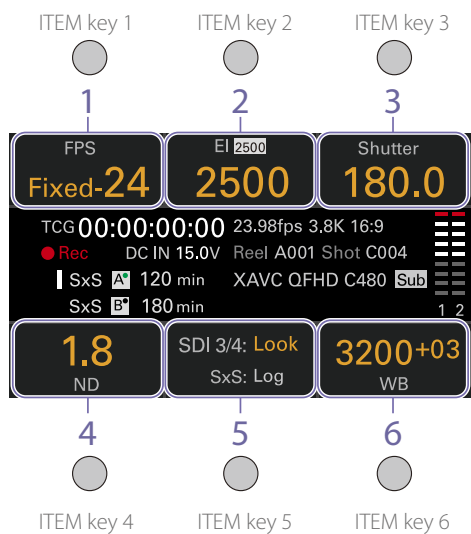
[Note]
The areas labeled 1 to 6 correspond to ITEM keys 1 to 6 (page 37). Press an ITEM key to select the corresponding item. The ITEM keys for functions displayed in orange text color are enabled.
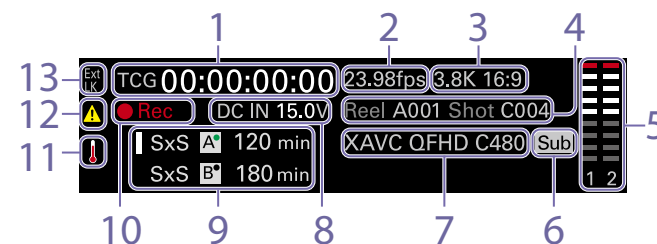
1. **FPS**
   Displays and sets the video frame rate.

2. **Exposure Index**
   Displays and sets the exposure index (EI) (top icon displays the base ISO sensitivity).

3. **Shutter**
   Displays and sets the shutter speed/shutter angle of the electronic shutter.

4. **ND Filter**
   Displays and sets the ND filter position.

5. **LUT**
   Displays and sets the monitor LUT.

6. **WB (White Balance)**
   Displays and sets the white balance.

Status display area

1. **Time data display**
   Displays the duration or timecode, depending on the TC/Media category > TC Display setting in the menu (page 41).
   Displays the type of data currently shown in the time data display, as follows.
   TCG: Recorded timecode
   TCR: Playback timecode
   Dur: Duration

2. **Frame rate indicator**
   Displays the value of the Project category > Project Frame Rate setting in the menu (page 41).

3. **Imager mode indicator**
   Displays the Project category > Imager Mode setting in the menu, and de-squeeze information.

4. **Clip name display**
   Displays "Reel: Camera ID + Reel Number" and "ShotNumber".

5. **Audio level meters**
   Displays the audio recording or playback levels. The numbers 1 and 2 Indicate channels 1 and 2.

6. **Simultaneous recording indicator**
   When 1-slot simultaneous recording is configured for the displayed media, a "Sub" icon appears on the right of the displayed main recording format.

7. **Recording format (codec) indicator**
   Displays the format of the recording on an AXS memory card or an SxS memory card (page 44).

8. **Power supply voltage/Remaining battery capacity indicator**
   Displays the power supply voltage or remaining battery capacity.

9. **Remaining media capacity indicator**
   Displays the active media icon, media type, slot type (A/B), and remaining recording time (when recording in the current recording format).
   It also displays the clip name during playback.

10. **Recording status indicator**
    Displays the following recording operation states of the unit.

Display	Description
Stby	Recording standby
●Rec	Recording
●Cache	Picture cache recording standby

11. **Thermometer icon**
    Displayed when a high temperature warning message is issued.
    The description is displayed in the Info category in the menu.

12. **Warning icon**
    Displayed when other than a high
    temperature warning message is issued.
    The description is displayed in the Info
    category in the menu.

13. **Ext-LK icon**
    Displayed when the internal timecode
    generator is locked to an external signal input
    to the TC IN (timecode input) connector.

Operations on the Home Screen of the Sub Display

Basic Operation

1 Press the HOME button.
The Home screen appears.

FPS	EI 2500	Shutter
Fixed-24	2500	180.0

TCG 00:00:00:00 | 23.98fps | 4K 4:3 2x SV
● REC | DC IN 15.0V | Reel A001 Shot C004
SxS A 120 min | XAVC QFHD C480 Sub
SxS B 180 min | 1 2

| 1.8 | SDI 3/4: Look | 3200 +03 |
| ND | SxS: Log | WB |

2 Select the item to set using the ITEM keys 1 to 6.
The setting value for items that can be changed are displayed in orange.
The following diagram shows an example when ITEM key 3 is pressed.

Step / Cont.	⬆	Set
Current:	172.8	
⌿ 144.0	**144.0**	Use buttons or
(1/59.95)	● 90.0	dial to select.
	45.0	
	22.5	
Step Edit	⬇	Cancel
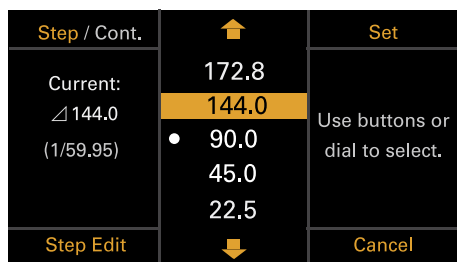
3 Move the cursor to the item or setting value to select using the ⬆ button (ITEM key 2), ⬇ button (ITEM key 5), or MENU dial.

4 Press the MENU dial or Set button (ITEM key 3) to apply the setting.

Changing the brightness of the sub display

You can change the brightness of the sub display using Technical > Control Display > Brightness level (page 64) in the full menu.
On the Home screen, you can also press and hold the BACK button and turn the MENU dial clockwise to change the brightness of the sub display in the sequence Minimum → Low → Mid → High with the current setting as the base point.
You can also press and hold the BACK button and turn the MENU dial counterclockwise to change the brightness of the sub display in the sequence High → Mid → Low → Minimum with the current setting as the base point.

[Note]
The display brightness setting is common to both the sub display and the mini display, and is reflected on both displays simultaneously.

Step Edit Operation

You can change the settings available for selection when "Step Edit" is displayed for ITEM key 4 in step 2 in the basic operation. You can add and delete settings on the settings edit screen.

1 On the settings selection screen, move the cursor to the setting you want to change or delete, and press the Step Edit button (ITEM key 4).
The settings edit screen appears.

	✚	
Step Edit	⬆	Use buttons or
	90.0	dial to select.
	⬇	
Add Delete	━	Cancel
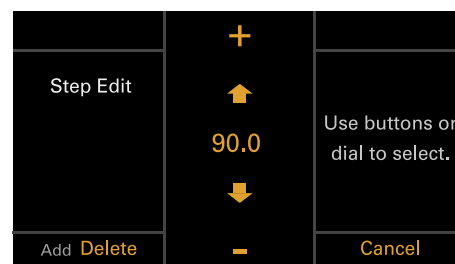
2 To delete a setting, press the Delete button (ITEM key 4).

[Note]
The selected setting can be deleted if the "Delete" character string is displayed in orange.

3 Use the ⬆ button (ITEM key 2), ⬇ button (ITEM key 5), or MENU dial to change a setting.

4 When finished, press the Add button (ITEM key 4).
The setting is added and the display returns to the setting selection screen.

[Note]
A setting can be added if the "Add" character string is displayed in orange.

When setting White Balance

On the White Balance settings edit screen, you can press the Coarse/Fine button (ITEM key 1) to change the 1-step increment variation to coarse or fine. You can also press the Temp/Tint button (ITEM key 3) to switch the value between color temperature (Temp) and color tone (Tint).

Coarse / Fine	✚	Temp / Tint
Step Edit	⬆	Use buttons or dial to select temp.
(User WB)	3200K +03	
Base:	⬇	Coarse=100K
3200 K + 03		Fine=1K
Add Delete	━	Cancel
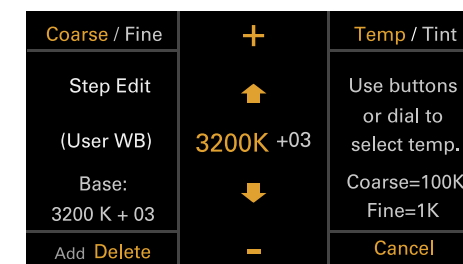
FPS Operation

Press ITEM key 1 on the Home screen to display the FPS operation screen. You can press the Variable/Fixed button (ITEM key 4) to switch between "Fixed" for constant speed shooting and "Variable (Select FPS)" for variable speed shooting.

	⬆	Set
Current:	22	
FPS 26	23	Use buttons or
Project:	24	dial to select.
23.98fps	25	
	● **26**	
Variable/ Fixed	⬇	Cancel
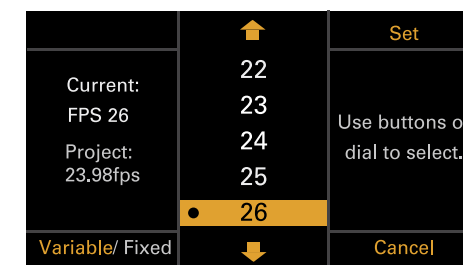
[Note]
Audio is not recorded in "Select FPS" mode.

EI Operation

You can switch the Base ISO by pressing ITEM key 1 on the Home screen.

1 Press ITEM key 1 on the Home screen.
The EI setup screen appears.

	⬆	Set
Current: EI 500	250 320	Use buttons or dial to select.
Latitude H: 6.0 Stops Base ISO:500	400 ● 500 640	
Change Base	⬇	Cancel

2 Use the ⬆ button (ITEM key 2), ⬇ button (ITEM key 5), or MENU dial to change the setting, and press the Change Base button (ITEM key 4).

	⬆	Set
Current: EI 500	250 320	Use buttons or dial to select.
Latitude H: 6.0 Stops Base ISO:500	● 400 500 640	
Change Base	⬇	Cancel

3 Press the two Change buttons (ITEM key 1 and ITEM key 3) simultaneously.

Change		Change
	Change Base ISO?	
	ISO 500 → ISO 2500	
	Press both Change buttons together.	
		Cancel
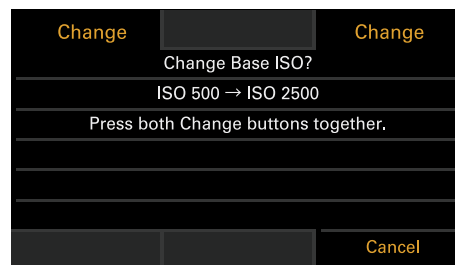
The Base ISO is changed (page 35).

AWB Operation

Press ITEM key 6 on the Home screen to display the white balance operation screen. Press the Auto White Bal. button (ITEM key 1) to execute white balance. After execution, press the Add button (ITEM key 4) to add the setting to a step. You can also press the Temp/Tint button (ITEM key 3) to switch the value between color temperature (Temp) and color tone (Tint) to make fine adjustments to the value before adding a value to a step.

Auto White Bal.	⬆	Set
Current: 3200 K +03 (User WB)	3200 +00 ● 3200 +03 4300 +00 5500 +00	Use buttons or dial to select.
Step Edit	⬇	Cancel

[Note]
During AWB operation, shoot a white chart under uniform lighting conditions.

LUT Operation

Setting a LUT

You can set a LUT for each output system using ITEM key 5 on the Home screen.

1 Press ITEM key 5 on the Home screen.
The LUT selection screen appears.

Page 1 / 2	SDI 1/2	SDI 3/4
Outputs	Log	——
Look 3535-Big v3.cube (3D-CDL) CDL : ColorCollection002 Log : EI not applied		
	Look	
Edit Look	Monitor	HDMI

The LUT selection screen has two pages, and you can switch the page by pressing ITEM key 1.
On page 1, you can set the LUT settings for SDI 1/2 (display only), SDI 3/4, Monitor, and HDMI.
On page 2, you can set the LUT settings for the viewfinder, SxS Rec, and Sub Rec.

2 Select the output to set using ITEM keys 2, 3, 5, and 6.
The settings edit screen appears.

3 Use the ⬆ button (ITEM key 2), ⬇ button (ITEM key 5), or MENU dial to change a setting.

4 Press the MENU dial or Set button (ITEM key 3) to apply the setting.

Changing Preset Look

You can set a LUT when Look is selected on the LUT selection screen using the Edit Look button (ITEM key 4) on page 1 or page 2.

1 Press the Edit Look button (ITEM key 4) on the LUT selection screen.
The Look selection screen appears.

	⬆	Select
Category	Preset look	
Preset Look	s709	
Load File	⬇	Done

2 Press the Select button (ITEM key 3).
The items that can be selected are displayed.

3 Use the ⬆ button (ITEM key 2), ⬇ button (ITEM key 5), or MENU dial to change a setting.

4 Press the MENU dial or Set button (ITEM key 3) to apply the setting.

Changing the LUT category

You can change the target category for LUT operations to User 3D LUT or Preset Look.

1 Press the Edit Look button (ITEM key 4) on the LUT selection screen.
The Look selection screen appears.

2 Use the ⬆ button (ITEM key 2), ⬇ button (ITEM key 5), or MENU dial to enable category selection.

3 Press the MENU dial or the Select button (ITEM key 3).

4   Use the ⬆ button (ITEM key 2), ⬇ button (ITEM key 5), or MENU dial to select a category (User 3D LUT or Preset Look).

5   Press the MENU dial or Set button (ITEM key 3) to apply the setting.

Loading a User 3D LUT file

You can load a User 3D LUT file stored on an SD card into the unit.

[Note]
Save the User 3D LUT file in the following directory on the SD card (page 79).
PRIVATE\SONY\PRO\LUT\

1   Insert the SD card into the SD card slot (page 11).

2   Press the Edit Look button (ITEM key 4) on the LUT selection screen.
The Look selection screen appears.

3   Press the Load File button (ITEM key 4).

	⬆	Select
Category		User 3D LUT
User 3D LUT		s709.cube
Load File	⬇	Done
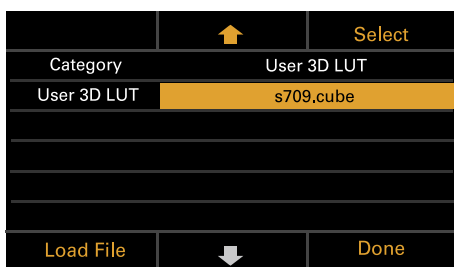
4   Press the MENU dial or the Select button (ITEM key 3).
The load destination numbers (01 to 16) are displayed.
A file name is displayed for loaded numbers.

	⬆	Select
Load 3D LUT		01: sLog2 to Linear.cube
		02: LMT ACES v0.1.1.cube
🎞 Step1:		03: LightIllusion_LP.cube
Select		04: Binary_Through_17.l3D
Destination		05: Test0312_EI+0.6/Cube
	⬇	Back
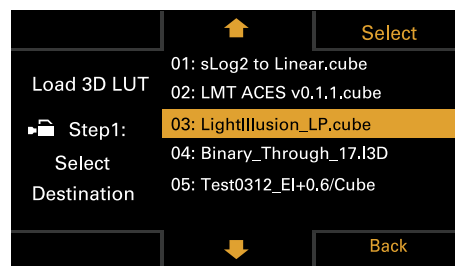
5   Use the ⬆ button (ITEM key 2), ⬇ button (ITEM key 5), or MENU dial to select a load destination number.

6   Press the MENU dial or the Select button (ITEM key 3).
The file name of the User 3D LUT file stored on the SD card is displayed.

	⬆	Load
Load 3D LUT		3535-Big v3.cube
		Rec709 to DCI-XYZ.cube
💾 Step2:		Raw Viewer_LP2.cube
Select File to		Test0312_EI+0.6.cube
Load on 03		ACES_RRT709_V1−_f5_V7.13
	⬇	Back
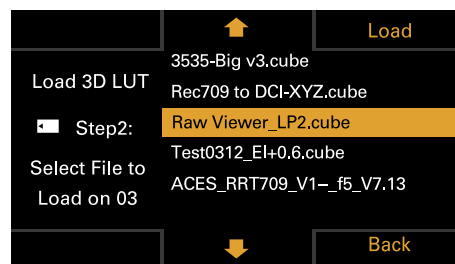
7   Use the ⬆ button (ITEM key 2), ⬇ button (ITEM key 5), or MENU dial to select a file.

8   Press the MENU dial or the Load button (ITEM key 3).
When the file is loaded successfully, "Successfully loaded" is displayed.

9   Press the OK button (ITEM key 6).

Loading an ASC CDL file

You can load an ASC CDL file stored on an SD card into the unit.

[Note]
Save the ASC CDL file in the following directory on the SD card (page 79).
PRIVATE\SONY\PRO\CDL\

1   Insert the SD card into the SD card slot (page 11).

2   Press the Edit Look button (ITEM key 4) on the LUT selection screen.
The Look selection screen appears.

3   Press the Load File button (ITEM key 4).

ASC CDL Info	⬆	Select
Category		User 3D LUT
User 3D LUT		s709.cube
ASC CDL Process	CDL Off	
ASC CDL Select	03: Scene4_Dark_160830	
Load File	⬇	Done
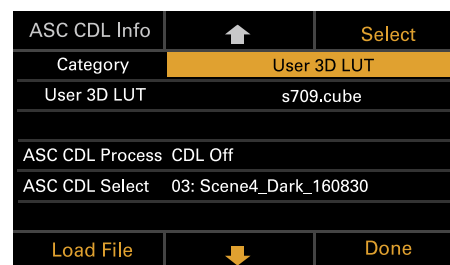
4   Select Load ASC CDL File, and press the MENU dial or the Select button (ITEM key 3).

	⬆	Select
		Load User 3D LUT File
		Load ASC CDL File
	⬇	Done
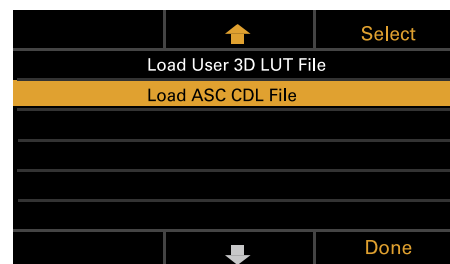
The file name of the ASC CDL file stored on the SD card is displayed.

Load All Files	⬆	Load
Load ASC CDL		ColorCorrection001
		ColorCorrection002
Select Files		03:Scene4_Dark_160830
on SD Card		List_04082018
Loadable Files:		List_04022018
88		
	⬇	Back
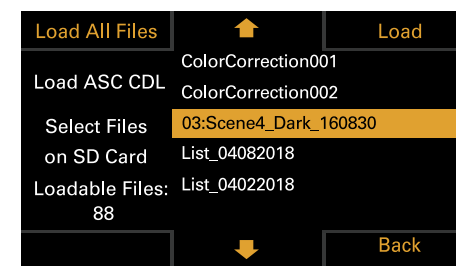
5   Use the ⬆ button (ITEM key 2), ⬇ button (ITEM key 5), or MENU dial to select a file.

6   Press the MENU dial or the Load button (ITEM key 3).
You can press the Load All Files button (ITEM key 1) to load all files.
When the file is loaded successfully, "Successfully loaded" is displayed.

7   Press the OK button (ITEM key 6).

8   Specify the ASC CDL processing sequence in ASC CDL Process.

ASC CDL Info	⬆	Select
Category		User 3D LUT
User 3D LUT		s709.cube
ASC CDL Process	CDL Off	
ASC CDL Select	03: Scene4_Dark_160830	
Load File	⬇	Done
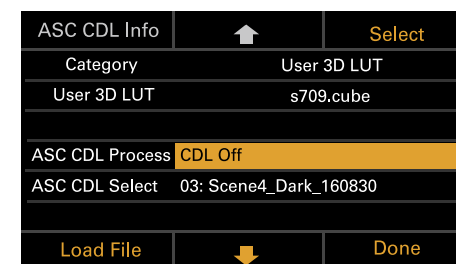
Changing the User 3D LUT File

You can change the currently selected User 3D LUT file.

1 Press the Edit Look button (ITEM key 4) on the LUT selection screen.
The Look selection screen appears.

		Select
Category		User 3D LUT
User 3D LUT		s709.cube
Load File		Done
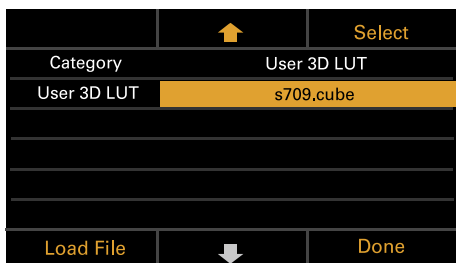
2 Press the MENU dial or the Select button (ITEM key 3).

3 Use the ⬆ button (ITEM key 2), ⬇ button (ITEM key 5), or MENU dial to change the User 3D LUT file.

		Set
	01: s709.cube	
	02: LMT ACES v0.1.1.cube	
User 3D LUT	03: LightIllusion_LP.cube	
s709	04: Binary_Through_17.l3D	
	05: Test0312_EI+0.6/Cube	
		Cancel
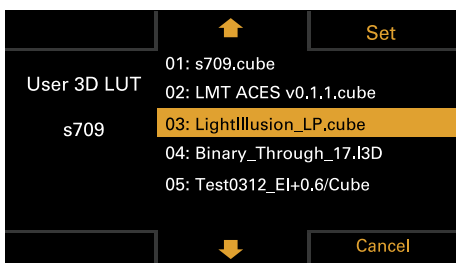
4 Press the MENU dial or Set button (ITEM key 3) to apply the setting.

Changing the ASC CDL File

You can change the currently selected ASC CDL file.

1 Press the Edit Look button (ITEM key 4) on the LUT selection screen.
The Look selection screen appears.

2 Select ASC CDL Select, and press the MENU dial or the Select button (ITEM key 3).

ASC CDL Info		Select
Category		User 3D LUT
User 3D LUT		s709.cube
ASC CDL Process	CDL Off	
ASC CDL Select	03: Scene4_Dark_160830	
Load File		Done
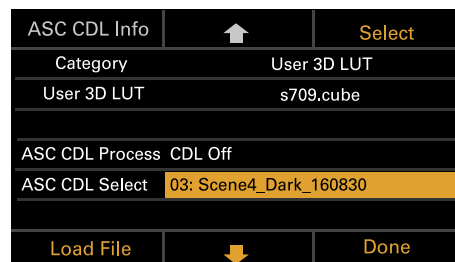
3 Use the ⬆ button (ITEM key 2), ⬇ button (ITEM key 5), or MENU dial to change the ASC CDL file.

		Set
	01: sLog2 to Linear.cube	
ASC CDL Select	02: LMT ACES v0.1.1.cube	
03: Scene 4	03:Scene4_Dark_160830	
Dark_1608...	04: Binary_Through_17.l3D	
	05: Test0312_EI+0.6/Cube	
		Cancel
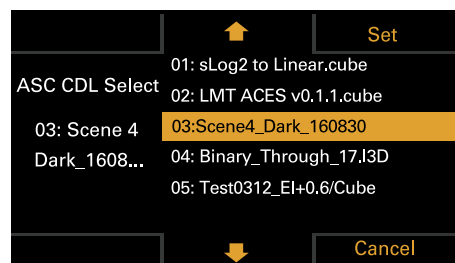
4 Press the MENU dial or Set button (ITEM key 3) to apply the setting.

Displaying ASC CDL information

You can display information for the currently selected ASC CDL file.

1 Press the Edit Look button (ITEM key 4) on the LUT selection screen.
The Look selection screen appears.

2 Select ASC CDL Select, and press the ASC CDL Info button (ITEM key 1).

ASC CDL Info		Select
Category		User 3D LUT
User 3D LUT		s709.cube
ASC CDL Process	CDL Off	
ASC CDL Select	03: Scene4_Dark_160830	
Load File		Done
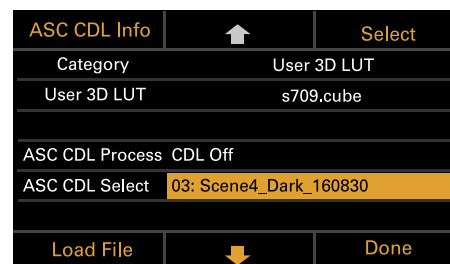
The ASC CDL information is displayed.

03: Scene4_Dark_160830			
Input Description:			
GeneralProducts M1 std thru GP M1 LUT4			
	R	G	B
Slope	1.000	1.000	1.000
Offset	-1.000	-1.000	-1.000
Power	1.000	1.000	1.000
Saturation		1.000	
			OK
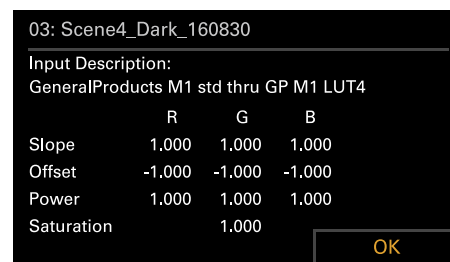
About the ASC CDL file setting ranges

The ASC CDL file setting ranges are shown below. Files that exceed the ranges cannot be loaded.
Slope: 0.000 to 3.999
Offset: –1.000 to 1.000
Power: 0.400 to 4.000
Saturation: 0.000 to 3.999

Home Screen Items on the Sub Display

The names of items and corresponding setting values are given below.
Default values are shown underlined and in bold text.

Item	Description
FPS	Sets the shooting frame rate. Variable/Fixed: Switch between variable speed and constant speed shooting. When "Fixed" is selected, the setting is determined by the Project category > Project Frame Rate (page 41) setting in the menu.

Project Frame Rate	Display
23.98	Fixed-24
24	Fixed-24
25	Fixed-25
29.97	Fixed-30
47.95	Fixed-48
50	Fixed-50
59.94	Fixed-60

When "Variable" is selected, the setting changes as follows depending on the Project category > Imager Mode (page 54) setting in the menu.

Imager Mode	Setting
3.8K 16:9 4K 17:9	1 to 60 FPS
3.8K 16:9 Surround View 4K 17:9 Surround View 4K 4:3	1 to 48 FPS
4K 4:3 Anamorphic Surround 4K 6:5 5.7K 16:9 6K 2.39:1 6K 17:9 6K 1.85:1	1 to 30 FPS
6K 3:2	1 to 25 FPS

Item	Description
Exposure Index	Sets the EI value. You can change the Base ISO setting by pressing the Change Base button (ITEM key 4) and then simultaneously pressing the two Change buttons (ITEM key 1 and ITEM key 3) on the subsequent screen. The available settings vary as follows depending on the Base ISO setting. Base ISO 500: 125EI/160EI/200EI/250EI/320EI/400EI/500EI/640EI/800EI/1000EI/1250EI/ 1600EI/2000EI Base ISO 2500: 640EI/800EI/1000EI/1250EI/1600EI/2000EI/2500EI/3200EI/4000EI/5000EI/ 6400EI/8000EI/10000EI
Shutter	Sets the electronic shutter angle/shutter speed. Press the Step/Cont. button (ITEM key 1) to switch between step and continuous selection methods. Step: Select from up to 16 preset values registered as shutter steps. You can press the Step Edit button (ITEM key 4) to change any setting from the preset value after selection. Displays the following selection options depending on the Technical > System Configuration > Shutter Mode (page 63) setting in the full menu. **Angle: Shutter angle indicator** Default selection options 360/180/172.8/144/90/45/22.5/11.2/5.6 **Speed: Shutter speed indicator** Default selection options 1/24, 1/25, 1/30, 1/50, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000 [1] [Note] The default speed values for different Project Frame Rate (page 41) settings are given below. 23.98/24: 1/24, 25: 1/25, 29.97: 1/30, 47.95: 1/48, 50: 1/50, 59.94: 1/60 Cont.: Select an angle/speed within the supported range.
ND Filter	Sets the ND filter position. The following settings are available. Clear/0.3/0.6/0.9/1.2/1.5/1.8/2.1/2.4

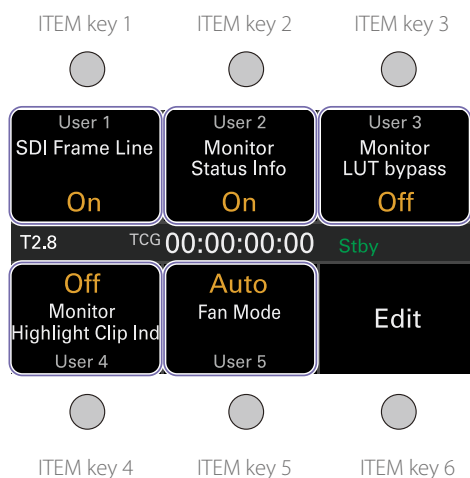| Item	Description

LUT	Configures settings related to the LUT to apply to the output video.
	
	Page 1
	
	SDI 1/2 (ITEM key 2): Log
	    Display only, as LUT cannot be applied to the SDI 1/2 output image.
	SDI 3/4 (ITEM key 3): Log/Look
	    Selects the LUT to apply to the SDI 3/4 output image.
	    Disabled when Monitoring category > Output Format > SDI 1/2 is set to 4K/QFHD in the menu.
	Monitor (ITEM key 5): Log/s709/R709(800%)
	    Selection becomes Log/Look when Monitoring category > Output Format > SDI 1/2 is set to 4K/QFHD in the menu.
	HDMI (ITEM key 6): Log/s709/R709(800%)
	    Fixed to Log when Monitoring category > Output Format > SDI 1/2 is set to 4K/QFHD and HDMI is set to 4K/QFHD in the menu. In all other cases, the options are the same as for Monitor.
	
	Page 2
	
	Viewfinder (ITEM key 2): Log/s709/R709(800%)
	    Selects the LUT to apply to the viewfinder/monitor screen output image.
	SxS Rec (ITEM key 5): Log/Look
	    Disabled when Project category > SxS Rec Format is set to Rec Off in the menu, or fixed to Log when set to XAVC.
	Sub Rec (ITEM key 6): Log/Look
	    Disabled when Project category > SxS Rec Format is set to Rec Off in the menu.
	
	Page 1/2 common items
	
	    Edit Look: Sets a LUT to apply as a Look.
	    s709 / R709(800%) / S-Gamut3.Cine/SLog3 / S-Gamut3/SLog3 / User 3D LUT

WB (White Balance)	Sets the color temperature/color tone of the white balance.
	    Default selection options
	        3200K+00/4300K+00/5500K+00
	You can press the Step Edit button (ITEM key 4) to change the white balance preset value and Tint value.
	Auto White Bal.: Execute auto white balance.

[1]   The options are 1/60 and subsequent values when the project frame rate is 59.94, 1/50 and subsequent values when 50.0, 1/30 and subsequent values when 29.97, and 1/25 and subsequent values when 25.0.

User Functions Screen

You can press the USER button (page 9) to display the user functions screen on the sub display and use the ITEM keys 1 to 5 as assignable buttons (User 1 to 5).
There are also four assignable buttons (pages 7, 8, 9) to which you can assign various functions.
Functions can be assigned to these buttons using the user functions screen, in addition to using Project > Assignable Button in the full menu.

ITEM key 1   ITEM key 2   ITEM key 3

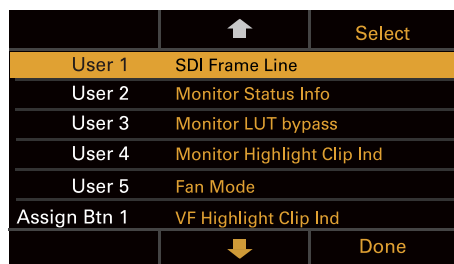| User 1
SDI Frame Line
On | User 2
Monitor Status Info
On | User 3
Monitor LUT bypass
Off |
| T2.8 | TCG 00:00:00:00 | Stby |
| Off
Monitor Highlight Clip Ind
User 4 | Auto
Fan Mode
User 5 | Edit |

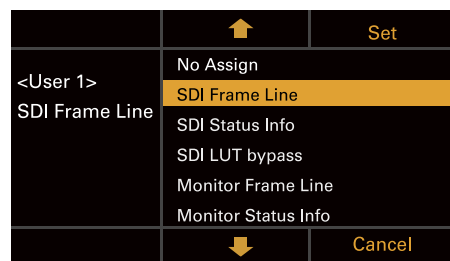ITEM key 4   ITEM key 5   ITEM key 6

[Note]
When a lens that supports the iris setting display function is attached, the iris position is displayed in the center left of the user functions screen.

Changing Button Functions

The user functions selection screen is displayed by pressing the Edit button (ITEM key 6) on the user functions screen. You can set the functions for the User 1 to 5 buttons and assignable buttons 1 to 4 on the user functions selection screen.

	⬆	Select
User 1	SDI Frame Line
User 2	Monitor Status Info
User 3	Monitor LUT bypass
User 4	Monitor Highlight Clip Ind
User 5	Fan Mode
Assign Btn 1	VF Highlight Clip Ind
	⬇	Done

1 On the user functions selection screen, move the cursor to the button you want to change, and press the Select button (ITEM key 3).
The functions that can be selected are displayed.

	⬆	Set
<User 1> SDI Frame Line	No Assign
	SDI Frame Line
	SDI Status Info
	SDI LUT bypass
	Monitor Frame Line
	Monitor Status Info
	⬇	Cancel

2 Use the ⬆ button (ITEM key 2), ⬇ button (ITEM key 5), or MENU dial to change a setting.

3 When finished, press the Set button (ITEM key 3).
The display returns to the user functions screen, and displays the changed function.

The following tables lists the functions that are assigned when the unit is shipped from the factory.

Button	Function	Assignable Button setting
Assignable 1	Displays clipped highlight areas in red in the viewfinder.	VF Highlight Clip Ind
Assignable 2	No assignment	Not Assigned
Assignable 3	No assignment	Not Assigned
Assignable 4	No assignment	Not Assigned
ITEM key 1	No assignment	Not Assigned
ITEM key 2	No assignment	Not Assigned
ITEM key 3	No assignment	Not Assigned
ITEM key 4	Displays clipped highlight areas in red on the Monitor output.	Monitor Highlight Clip Ind
ITEM key 5	Sets the fan control mode.	Fan Mode

Functions that can be Assigned to ITEM Keys 1 to 5

Assignable Button setting	Function	State when unit is powered on
No Assign	No assignment	–
SDI Frame Line	Turns superimposition of frame lines on the SDI 3/4 output image on/off.	Setting retained
SDI Status Info	Turns display of information on the SDI 3/4 output image on/off.	Setting retained
Press & Hold for SDI Log	Disables the LUT applied to the SDI 3/4 output image while the key is pressed, and sets Log image quality without applying a LUT.	Setting not retained
Monitor Frame Line	Turns superimposition of frame lines on the Monitor output image on/off.	Setting retained
Monitor Status Info	Turns display of information on the Monitor output image on/off.	Setting retained
Press & Hold for Monitor Log	Disables the LUT applied to the Monitor output image while the key is pressed, and sets Log image quality without applying a LUT.	Setting not retained
Monitor Highlight Clip Ind	Turns the function that displays clipped highlight areas in red on the Monitor output image on/off.	Setting retained
Monitor False Color	Turns the false color function display on a monitor on/off.	Setting retained
Color Bars	Turns color bars on/off.	Setting retained

Assignable Button setting	Function	State when unit is powered on
AXS Slot Change	Switches the active slot when two AXS memory cards are inserted. Switches between A and B each time the key is pressed.	Setting retained
SxS Slot Change	Switches the active slot when two SxS memory cards are inserted. Switches between A and B each time the key is pressed.	Setting retained
Fan Mode	Sets the fan control mode. Switches between Auto → Max → Off in Rec/ Auto → Off in Rec/Max each time the key is pressed.	Setting retained
Format Media AXS Slot A	Formats media in AXS slot A.	–
Format Media AXS Slot B	Formats media in AXS slot B.	–
Format Media SxS Slot A	Formats media in SxS slot A.	–
Format Media SxS Slot B	Formats media in SxS slot B.	–
APR	Executes APR.	–
Lens Interface	Selects the lens interface. Switches between Off → Type C each time the key is pressed.	Setting retained
VF Highlight Clip Ind	Turns the function to display clipped highlight areas in red in the viewfinder on/off.	Setting retained
VF False Color	Turns the false color function display in a viewfinder on/off.	Setting retained
Auto White Balance	Executes auto white balance.	–
Picture Cache Rec	Turns the picture cache recording function on/off.	Setting retained
Iris Open (1/16 stop)	Opens the lens iris. Press and hold to open the iris until fully open. This function is available when an E mount lens with power iris is attached. The setting is in 1/16 stop increments, whereas the iris indication is in units of 1/3 stop increments.	–
Iris Close (1/16 stop)	Closes the lens iris. Press and hold to close the iris until fully closed. This function is available when an E mount lens with power iris is attached. The setting is in 1/16 stop increments, whereas the iris indication is in units of 1/3 stop increments.	–

Functions that can be Assigned to Assignable Buttons 1 to 4

Assignable Button setting	Function	State when unit is powered on
No Assign	No assignment	–
SDI Frame Line	Turns superimposition of frame lines on the SDI 3/4 output image on/off.	Setting retained
SDI Status Info	Turns display of information on the SDI 3/4 output image on/off.	Setting retained
Press & Hold for SDI Log	Disables the LUT applied to the SDI 3/4 output image while the key is pressed, and sets Log image quality without applying a LUT.	Setting not retained
Monitor Frame Line	Turns superimposition of frame lines on the Monitor output image on/off.	Setting retained
Monitor Status Info	Turns display of information on the Monitor output image on/off.	Setting retained
Press & Hold for Monitor Log	Disables the LUT applied to the Monitor output image while the button is pressed, and sets Log image quality without applying a LUT.	Setting not retained
Monitor Highlight Clip Ind	Turns the function that displays clipped highlight areas in red on the Monitor output image on/off.	Setting retained
Monitor High/Low Key	Selects the Monitor output mode. Switches between High Key (screen for checking for blown-out highlights) → Low Key (screen for checking for blocked-out shadows) → Off (normal display) each time the button is pressed.	Setting not retained
Monitor False Color	Turns the false color function display on a monitor on/off.	Setting retained
Color Bars	Turns color bars on/off.	Setting retained
AXS Slot Change	Switches the active slot when two AXS memory cards are inserted. Switches between A and B each time the button is pressed.	–
SxS Slot Change	Switches the active slot when two SxS memory cards are inserted. Switches between A and B each time the button is pressed.	–
Rec Review	Executes the Rec Review function.	Setting not retained

Assignable Button setting	Function	State when unit is powered on
VF Frame Line	Turns superimposition of frame lines on the viewfinder/monitor screen output image on/off.	Setting retained
VF Zebra	Turns the zebra function of the viewfinder/monitor screen output image on/off.	Setting retained
VF Status Info	Turns the information display on the viewfinder/monitor screen output image on/off.	Setting retained
VF Focus Magnifier	Turns the focus magnifier function of the viewfinder on/off.	Setting not retained
Press & Hold for VF Log	Disables the LUT applied to the viewfinder/monitor screen output image while the button is pressed, and sets Log image quality without applying a LUT.	Setting not retained
VF Highlight Clip Ind	Turns the function to display clipped highlight areas in red in the viewfinder on/off.	Setting retained
VF High/Low Key	Selects the viewfinder output mode. Switches between High Key (screen for checking for blown-out highlights) → Low Key (screen for checking for blocked-out shadows) → Off (normal display) each time the button is pressed.	Setting not retained
VF False Color	Turns the false color function display in a viewfinder on/off.	Setting retained
Auto White Balance	Executes auto white balance. Stops execution if pressed during auto white balance.	–
Picture Cache Rec	Turns the picture cache recording function on/off.	Setting retained
Iris Open (1/16 stop)	Opens the lens iris. Press and hold to open the iris until fully open. This function is available when an E mount lens with power iris is attached. The setting is in 1/16 stop increments, whereas the iris indication is in units of 1/3 stop increments.	–

Assignable Button setting	Function	State when unit is powered on
Iris Close (1/16 stop)	Closes the lens iris. Press and hold to close the iris until fully closed. This function is available when an E mount lens with power iris is attached. The setting is in 1/16 stop increments, whereas the iris indication is in units of 1/3 stop increments.	–
Rec	Starts/stops recording.	–

Menu Operations

By pressing the MENU button while shooting (during recording or recording standby) or during playback, you can display and operate the menu screen on the sub display.

- Project category: Basic settings and recording format settings
- TC/Media category: Timecode value and TC format settings
- Monitoring category: SDI/HDMI/Monitor external signal output format, OSD, and marker overlay status settings
- Audio category: Audio source and audio level settings
- Info category: Camera, media, and battery status information

Controls

MENU button (page 8)

Press to display the menu on the sub display.

ITEM keys 1 to 6 (page 8)

Selects the category of the menu.

SEL/SET dial (MENU dial) (page 8)

Turn to move the cursor in the corresponding direction to select setting items or setting values. Press the MENU dial to apply the selected item.

BACK button (page 9)

Press to return to the previous menu. Unconfirmed changes are canceled.

Basic Operation

1 Press the MENU button.
   The menu screen appears.

2 Select the category to set using ITEM keys 1 to 6.

3 Turn the MENU dial to move the cursor to the setting item to select.
   For each setting item, the setting value is displayed.

   "Menu Item List" (page 41)

Project	TC/Media	Monitoring
Imager Mode		4K 17:9
Project Frame Rate		23.98
Input Color Space		S-Gamut3.Cine/SLog3
AXS Rec Format		Rec Off
SxS Rec Format		XAVC 4K Class300
Sub Rec Format		Rec Off
Audio	Info	Project Details

4 Press the MENU dial.
   The setting value selection screen appears next to the selected item.

Project	TC/Media	Monitoring
Imager Mode		4K 4:3
Project Frame Rate		4K 17:9
Input Color Space		3.8K 16:9
AXS Rec Format		Rec Off
SxS Rec Format		XAVC 4K Class300
Sub Rec Format		Rec Off
Audio	Info	Project Details

5 Turn the MENU dial to move the cursor to the setting value.

6 Press the MENU dial to apply the setting.

Menu Item List

The items available in each category are given below.

Project category

Default values are shown underlined and in **bold** text.

Item	Settings	Description
Imager Mode	6K 3:2/6K 1.85:1/6K 17:9/ 6K 2.39:1/5.7K 16:9/4K 6:5/ 4K 4:3/4K 4:3 Surround View/ **4K 17:9**/ 4K 17:9 Surround View/ 3.8K 16:9/ 3.8K 16:9 Surround View	Sets the effective picture size. [Notes] • 6K 3:2/6K 1.85:1/6K 17:9 are displayed only when a Full Frame license is installed. • 4K 6:5/4K 4:3/4K 4:3 Surround View are displayed only when an Anamorphic license is installed.
Project Frame Rate	**23.98**/24/25/29.97/47.95/ 50/59.94	Sets the project frame rate.
Input Color Space	**S-Gamut3.Cine/SLog3** / S-Gamut3/SLog3	Sets the color space.
AXS Rec Format [1] (Only when an AXS-R7 is attached)	**Rec Off**/X-OCN XT/ RAW SQ/X-OCN ST/ X-OCN LT	Sets the recording format for AXS memory cards when an AXS-R7 is connected.
SxS Rec Format [1]	Rec Off/XAVC 4K Class480/ **XAVC 4K Class300**/ XAVC QFHD Class480/ XAVC QFHD Class300/ MPEG HD P/MPEG HD i/ ProRes 422 HQ HD P/ ProRes 422 HQ HD i/ ProRes 422 HD P/ ProRes 422 HD i/ ProRes Proxy HD P/ ProRes Proxy HD i	Sets the main recording format for SxS memory cards.
Sub Rec Format [1]	**Rec Off**/MPEG HD P/ MPEG HD i/ ProRes 422 Proxy HD P/ ProRes 422 Proxy HD i	Sets the sub recording format for SxS memory cards.
Project Details (ITEM key 6)		Displays the contents of the Project menu (page 54) in the full menu.

[1] The recording formats available vary depending on the combination of the effective picture size and project frame rate settings. For details about settings, see "Recording Format Settings" (page 44).

TC/Media category

Default values are shown underlined and in **bold** text.

Item		Settings	Description
TC Mode		Preset F-Run (Ext-Lk)/ **Preset R-Run**/Int Regen	Sets the timecode mode. Preset F-Run (Ext-Lk): Timecode advances continuously from specified value, regardless of whether recording or not. Preset R-Run: Timecode advances from specified value only when recording. Int Regen: Timecode continues from that of the previous clip.
TC Display		**Timecode**/Duration	Switches the time data indication.
TC Setting (set when switching to another screen)	Setting (H, M, S, F)		Sets the timecode to a desired value.
	Reset		Resets the timecode to 00:00:00:00.
	TC Format	**DF**/NDF	Sets the timecode format. DF: Drop frame NDF: Non drop frame
	TC Source	Internal/External	Display only.
Cam ID		**A** to Z	Sets the camera ID used when generating clip names. Clip name: Camera ID + Reel Number + Shot Number + date + random string
Reel#		**001** to 999	Sets the numeric portion of the Reel Number used when generating clip names. Clip name: Camera ID + Reel Number + Shot Number + date + random string
Camera Position		**C**/L/R	Sets the first character portion of the Shot Number used when generating clip names. Clip name: Camera ID + Reel Number + Shot Number + date + random string
Format Media (executed when switching to another screen)	AXS Slot A		Formats the AXS memory card in slot A.
	AXS Slot B		Formats the AXS memory card in slot B.
	SxS Slot A		Formats the SxS memory card in slot A.
	SxS Slot B		Formats the SxS memory card in slot B.
	SD Card		Formats the SD card.
Media Details (ITEM key 6)			Displays the contents of the TC/Media menu (page 56) in the full menu.

Monitoring category

Default values are shown underlined and in **bold** text.

[Notes]
- The unit supports independent configuration of Status Info and Frame Line for each system. The display information for the A and B output images is configured using the Monitoring menu (page 58).
- Info and Frame Line may not be displayed depending on the Output Format setting. In this case, "–" is displayed and the setting cannot be changed.

Item		Settings	Description
VF	Status Info	Info A/Info B/Off	Selects the information to display superimposed on the viewfinder image.
	Frame Line	Line A/Line B/Off	Selects the frame lines to display superimposed on the viewfinder image.
SDI 1/2	Output Format	The available settings vary according to the imager mode, project frame rate, and SxS recording format settings.	Selects the SDI 1/2 output format.[1]
	Status Info	–	Information display is not superimposed on the SDI 1/2 output.
	Frame Line	Line A/Line B/Off	Selects the frame lines to display superimposed on the SDI 1/2 output. [Note] Frame lines are only superimposed if the output format is 4K/QFHD.
SDI 3/4 [Note] Depending on the Output Format setting of SDI 1/2, the Output Format, Info, Frame Line settings of SDI 3/4 may be blank and cannot be changed.	Output Format	The available settings vary depending on the SDI 1/2 setting.	Selects the SDI 3/4 output format.[1]
	Status Info	Info A/Info B/Off	Selects the information to display superimposed on the SDI 3/4 output.
	Frame Line	Line A/Line B/Off	Selects the frame lines to display superimposed on the SDI 3/4 output.
Monitor	Output Format	The available settings vary depending on the SDI 1/2 setting.	Selects the Monitor output format.[2]
	Status Info	Info A/Info B/Off	Selects the information to display superimposed on the Monitor output.
	Frame Line	Line A/Line B/Off	Selects the frame lines to display superimposed on the Monitor output.
HDMI	Output Format	The available settings vary depending on the SDI 1/2 setting.	Selects the HDMI output format.[2]

Item	Settings	Description
Moni. Details (ITEM key 6)		Displays the contents of the Monitoring menu (page 58) in the full menu.

[1] For details about formats available for selection, see "SDI OUT Connector Output Formats" (page 86).
[2] For details about formats available for selection, see "MONITOR OUT Connector/HDMI OUT Connector Output Formats" (page 90).

Audio category

Default values are shown underlined and in **bold** text.

Item	Settings	Description
Source Switch	LINE / AES/EBU / MIC	Displays the position of the AUDIO IN switch (page 8) that sets the CH1 and CH2 input source.
CH-1 Audio Level	Auto/Manual −99 to +0 to +99	The audio recording level is adjusted automatically when set to Auto. The audio recording level is adjusted manually when set to Manual.
CH-2 Audio Level	Auto/Manual −99 to +0 to +99	The audio recording level is adjusted automatically when set to Auto. The audio recording level is adjusted manually when set to Manual.
MIC Reference	−60dB/−50dB/−40dB	Selects the reference input level of the microphone.
Monitor CH	When Monitor Output CH Pair is set to CH-1/CH-2 CH-1/CH-2, CH-1, CH-2 When Monitor Output CH Pair is set to CH-3/CH-4 CH-3/CH-4, CH-3, CH-4	Selects the audio channel that is output to the headphones and speaker.
Monitor Level	0 to 99	Adjusts the monitor audio level.
CH1 Level Meter	–	Displays the CH1 level meter.
CH2 Level Meter	–	Displays the CH2 level meter.
CH3 Level Meter	–	Displays the CH3 level meter.
CH4 Level Meter	–	Displays the CH4 level meter.
Audio Details (ITEM key 6)		Displays the contents of the Audio menu (page 61) in the full menu.

Checking the Status using the Info Category

You can check the status of media and the battery, and check the contents of warnings and errors that are issued using the Info category. The contents of the display update in realtime as the status of the unit changes.
The Info category consists of the following seven information pages. Turn the MENU dial to switch the page.

No.	Page	Description
1	Camera Condition	Displays warning messages and error messages. When there are no messages, "All Systems are OK" is displayed at the top of the display area.
2	Firmware	Displays the firmware version of the unit, the serial number and firmware version of the AXS-R7 attached to the unit, and the name and validity of option software licenses on the unit. If an option is not added or currently valid, "Not Installed" or "Expired" is displayed.
3	System	Displays the following system information. • Date and time • Fan rotation speed • Sensor detection temperature • Hours meter • IP Address [Note] "0.0.0.0" is displayed if the IP address cannot be obtained.
4	Battery	Displays the following battery information. • Detected battery name or type • Remaining capacity (%) • Estimated remaining time • Remaining capacity (Ah) • Voltage (V) • Number of times that the battery has been charged • Power source • Supplied power source voltage
5	Media	Displays the remaining capacity, remaining recording time, and lifespan data of SxS memory cards, AXS memory cards (when AXS-R7 is attached), and SD cards.

No.	Page	Description

6	Lens	Displays the following information for the lens attached to the unit.
		• Lens model name
		• T value of iris
		  [Note]
		  The F-stop value is displayed instead of the T-stop value if the T-stop value cannot be obtained.
		• Focal length
		• Focus distance
		• Depth of field
		• Serial number

7	Network	Displays the network connection setup information. • Status (LAN/Wireless Access Point/Wireless Station/Off) • IP Address • SSID • MAC Address [Note] "0.0.0.0" is displayed if the IP address cannot be obtained.

Recording Format Settings

The following recording formats can be selected for different combinations of effective picture size and project frame rate settings.
If a value shown underlined and in **bold** text is selected, a Log or LUT setting can be applied to the recorded video signal.

AXS Rec Format and SxS Rec Format combinations

Effective picture size (Imager Mode)	Main recording format		Project Frame Rate						
	AXS Rec Format	SxS Rec Format	23.98	24.00	25.00	29.97	47.95	50.00	59.94
6K 3:2 (6048×4032)	X-OCN XT X-OCN ST X-OCN LT	None	Yes	Yes	Yes	–	–	–	–
		4K XAVC-I Class480	Yes	Yes	Yes	–	–	–	–
		4K XAVC-I Class300	Yes	Yes	Yes	–	–	–	–
		MPEG HD422 P	Yes	–	Yes	–	–	–	–
		FHD ProRes 422 HQ P	Yes	Yes	Yes	–	–	–	–
		FHD ProRes 422 P	Yes	Yes	Yes	–	–	–	–
		FHD ProRes 422 Proxy P	Yes	Yes	Yes	–	–	–	–
6K 1.85:1 (6054×3272)	X-OCN XT X-OCN ST X-OCN LT	None	Yes	Yes	Yes	Yes	–	–	–
		4K XAVC-I Class480	Yes	Yes	Yes	Yes	–	–	–
		4K XAVC-I Class300	Yes	Yes	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		FHD ProRes 422 HQ P	Yes	Yes	Yes	Yes	–	–	–
		FHD ProRes 422 P	Yes	Yes	Yes	Yes	–	–	–
		FHD ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–
6K 17:9 (6054×3192)	X-OCN XT X-OCN ST X-OCN LT	None	Yes	Yes	Yes	Yes	–	–	–
		4K XAVC-I Class480	Yes	Yes	Yes	Yes	–	–	–
		4K XAVC-I Class300	Yes	Yes	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		FHD ProRes 422 HQ P	Yes	Yes	Yes	Yes	–	–	–
		FHD ProRes 422 P	Yes	Yes	Yes	Yes	–	–	–
		FHD ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–
6K 2.39:1 (6048×2534)	X-OCN XT X-OCN ST X-OCN LT	None	Yes	Yes	Yes	Yes	–	–	–
		4K XAVC-I Class480	Yes	Yes	Yes	Yes	–	–	–
		4K XAVC-I Class300	Yes	Yes	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		FHD ProRes 422 HQ P	Yes	Yes	Yes	Yes	–	–	–
		FHD ProRes 422 P	Yes	Yes	Yes	Yes	–	–	–
		FHD ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–

Effective picture size (Imager Mode)	Main recording format		Project Frame Rate						
	AXS Rec Format	SxS Rec Format	23.98	24.00	25.00	29.97	47.95	50.00	59.94
5.7K 16:9 (5674×3192)	X-OCN XT X-OCN ST X-OCN LT	None	Yes	Yes	Yes	Yes	–	–	–
		QFHD XAVC-I Class480	Yes	–	Yes	Yes	–	–	–
		QFHD XAVC-I Class300	Yes	–	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		FHD ProRes 422 HQ P	Yes	Yes	Yes	Yes	–	–	–
		FHD ProRes 422 P	Yes	Yes	Yes	Yes	–	–	–
		FHD ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–
4K 6:5 (4096×3432)	X-OCN XT X-OCN ST X-OCN LT	None	Yes	Yes	Yes	Yes	–	–	–
		4K XAVC-I Class480	Yes	Yes	Yes	Yes	–	–	–
		4K XAVC-I Class300	Yes	Yes	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		FHD ProRes 422 HQ P	Yes	Yes	Yes	Yes	–	–	–
		FHD ProRes 422 P	Yes	Yes	Yes	Yes	–	–	–
		FHD ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–
4K 4:3 (4096×3024)	X-OCN XT X-OCN ST X-OCN LT	None	Yes	Yes	Yes	Yes	Yes	–	–
		4K XAVC-I Class480	Yes	Yes	Yes	Yes	–	–	–
		4K XAVC-I Class300	Yes	Yes	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		FHD ProRes 422 HQ P	Yes	Yes	Yes	Yes	–	–	–
		FHD ProRes 422 P	Yes	Yes	Yes	Yes	–	–	–
		FHD ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–
4K 4:3 Surround (4096×3024) Picture size (4552×3360)	X-OCN XT X-OCN ST X-OCN LT	None	Yes	Yes	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		FHD ProRes 422 HQ P	Yes	Yes	Yes	Yes	–	–	–
		FHD ProRes 422 P	Yes	Yes	Yes	Yes	–	–	–
		FHD ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–
4K 17:9 (4096×2160)	RAW SQ X-OCN XT X-OCN ST X-OCN LT	None	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		4K XAVC-I Class480	Yes	Yes	Yes	Yes	–	–	–
		4K XAVC-I Class300	Yes	Yes	Yes	Yes	–	Yes	Yes
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		MPEG HD422 i	–	–	–	–	–	Yes	Yes
		FHD ProRes 422 HQ P	Yes	Yes	Yes	Yes	–	Yes	Yes
		FHD ProRes 422 HQ i	–	–	–	–	–	Yes	Yes
		FHD ProRes 422 P	Yes	Yes	Yes	Yes	–	Yes	Yes
		FHD ProRes 422 i	–	–	–	–	–	Yes	Yes
		FHD ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	Yes	Yes
		FHD ProRes 422 Proxy i	–	–	–	–	–	Yes	Yes

Effective picture size (Imager Mode)	Main recording format		Project Frame Rate						
	AXS Rec Format	SxS Rec Format	23.98	24.00	25.00	29.97	47.95	50.00	59.94
4K 17:9 Surround (4096×2160) Picture size (4552×2400)	RAW SQ X-OCN XT X-OCN ST X-OCN LT	None	Yes	Yes	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		FHD ProRes 422 HQ P	Yes	Yes	Yes	Yes	–	–	–
		FHD ProRes 422 P	Yes	Yes	Yes	Yes	–	–	–
		FHD ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–
3.8K (QFHD) 16:9 (3840×2160)	RAW SQ X-OCN XT X-OCN ST X-OCN LT	None	Yes	Yes	Yes	Yes	–	Yes	Yes
		QFHD XAVC-I Class480	Yes	–	Yes	Yes	–	–	–
		QFHD XAVC-I Class300	Yes	–	Yes	Yes	–	Yes	Yes
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		MPEG HD422 i	–	–	–	–	–	Yes	Yes
		FHD ProRes 422 HQ P	Yes	Yes	Yes	Yes	–	Yes	Yes
		FHD ProRes 422 HQ i	–	–	–	–	–	Yes	Yes
		FHD ProRes 422 P	Yes	Yes	Yes	Yes	–	Yes	Yes
		FHD ProRes 422 i	–	–	–	–	–	Yes	Yes
		FHD ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	Yes	Yes
		FHD ProRes 422 Proxy i	–	–	–	–	–	Yes	Yes
3.8K (QFHD) 16:9 Surround (3840×2160) Picture size (4268×2400)	RAW SQ X-OCN XT X-OCN ST X-OCN LT	None	Yes	Yes	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		FHD ProRes 422 HQ P	Yes	Yes	Yes	Yes	–	–	–
		FHD ProRes 422 P	Yes	Yes	Yes	Yes	–	–	–
		FHD ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–

SxS Rec Format and Sub Rec Format combinations

Effective picture size (Imager Mode)	Recording format		Project Frame Rate						
	SxS main recording format (SxS Rec Format) [1]	SxS sub recording format (Sub Rec Format) [2]	23.98	24.00	25.00	29.97	47.95	50.00	59.94
6K 3:2 (6048×4032)	4K XAVC-I Class480	None	–	–	–	–	–	–	–
	4K XAVC-I Class300	None	–	–	–	–	–	–	–
	FHD XAVC-I	None	–	–	–	–	–	–	–
	MPEG HD422 P	None	–	–	–	–	–	–	–
	FHD ProRes 422 HQ P	None	–	–	–	–	–	–	–
	FHD ProRes 422 P	None	–	–	–	–	–	–	–
	FHD ProRes 422 Proxy P	None	–	–	–	–	–	–	–

Effective picture size (Imager Mode)	Recording format		Project Frame Rate						
	SxS main recording format (SxS Rec Format) [1]	SxS sub recording format (Sub Rec Format) [2]	23.98	24.00	25.00	29.97	47.95	50.00	59.94
6K 1.85:1 (6054×3272)	4K XAVC-I Class480	None	Yes	Yes	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–
	4K XAVC-I Class300	None	Yes	Yes	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–
	MPEG HD422 P	None	Yes	–	Yes	Yes	–	–	–
	FHD ProRes 422 HQ P	None	Yes	Yes	Yes	Yes	–	–	–
	FHD ProRes 422 P	None	Yes	Yes	Yes	Yes	–	–	–
6K 17:9 (6054×3192)	4K XAVC-I Class480	None	Yes	Yes	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–
	4K XAVC-I Class300	None	Yes	Yes	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–
6K 2.39:1 (6048×2534)	4K XAVC-I Class480	None	Yes	Yes	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–
	4K XAVC-I Class300	None	Yes	Yes	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–
	MPEG HD422 P	None	Yes	–	Yes	Yes	–	–	–
	FHD ProRes 422 HQ P	None	Yes	Yes	Yes	Yes	–	–	–
	FHD ProRes 422 P	None	Yes	Yes	Yes	Yes	–	–	–
5.7K 16:9 (5674×3192)	QFHD XAVC-I Class480	None	Yes	–	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		ProRes 422 Proxy P	Yes	–	Yes	Yes	–	–	–
	QFHD XAVC-I Class300	None	Yes	–	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		ProRes 422 Proxy P	Yes	–	Yes	Yes	–	–	–
	MPEG HD422 P	None	Yes	–	Yes	Yes	–	–	–
	FHD ProRes 422 HQ P	None	Yes	Yes	Yes	Yes	–	–	–
	FHD ProRes 422 P	None	Yes	Yes	Yes	Yes	–	–	–

Effective picture size (Imager Mode)	Recording format		Project Frame Rate						
	SxS main recording format (SxS Rec Format) [1]	SxS sub recording format (Sub Rec Format) [2]	23.98	24.00	25.00	29.97	47.95	50.00	59.94
4K 6:5 (4096×3432)	4K XAVC-I Class480	None	Yes	Yes	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–
	4K XAVC-I Class300	None	Yes	Yes	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–
	MPEG HD422 P	None	Yes	–	Yes	Yes	–	–	–
	FHD ProRes 422 HQ P	None	Yes	Yes	Yes	Yes	–	–	–
	FHD ProRes 422 P	None	Yes	Yes	Yes	Yes	–	–	–
4K 4:3 (4096×3024)	4K XAVC-I Class480	None	Yes	Yes	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–
	4K XAVC-I Class300	None	Yes	Yes	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–
	MPEG HD422 P	None	Yes	–	Yes	Yes	–	–	–
	FHD ProRes 422 HQ P	None	Yes	Yes	Yes	Yes	–	–	–
	FHD ProRes 422 P	None	Yes	Yes	Yes	Yes	–	–	–
4K 4:3 Surround (4096×3024) Picture size (4552×3360)	MPEG HD422 P	None	Yes	–	Yes	Yes	–	–	–
	FHD ProRes 422 HQ P	None	Yes	Yes	Yes	Yes	–	–	–
	FHD ProRes 422 P	None	Yes	Yes	Yes	Yes	–	–	–
4K 17:9 (4096×2160)	4K XAVC-I Class480	None	Yes	Yes	Yes	Yes	–	–	–
		MPEG HD422	Yes	–	Yes	Yes	–	–	–
		ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–
	4K XAVC-I Class300	None	Yes	Yes	Yes	Yes	–	Yes	Yes
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		MPEG HD422 i	–	–	–	–	–	Yes	Yes
		ProRes 422 Proxy P	Yes	Yes	Yes	Yes	–	–	–
		ProRes 422 Proxy i	–	–	–	–	–	Yes	Yes

Effective picture size (Imager Mode)	Recording format		Project Frame Rate						
	SxS main recording format (SxS Rec Format) [1]	SxS sub recording format (Sub Rec Format) [2]	23.98	24.00	25.00	29.97	47.95	50.00	59.94
3.8K (QFHD) 16:9 (3840×2160)	QFHD XAVC-I Class480	None	Yes	–	Yes	Yes	–	–	–
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		ProRes 422 Proxy P	Yes	–	Yes	Yes	–	–	–
	QFHD XAVC-I Class300	None	Yes	–	Yes	Yes	–	Yes	Yes
		MPEG HD422 P	Yes	–	Yes	Yes	–	–	–
		MPEG HD422 i	–	–	–	–	–	Yes	Yes
		ProRes 422 Proxy P	Yes	–	Yes	Yes	–	–	–
		ProRes 422 Proxy i	–	–	–	–	–	Yes	Yes
	MPEG HD422 P	None	Yes	–	Yes	Yes	–	–	–
	MPEG HD422 i	None	–	–	–	–	–	Yes	Yes
	FHD ProRes 422 HQ P	None	Yes	Yes	Yes	Yes	–	Yes	Yes
	FHD ProRes 422 HQ i	None	–	–	–	–	–	Yes	Yes
	FHD ProRes 422 P	None	Yes	Yes	Yes	Yes	–	Yes	Yes
	FHD ProRes 422 i	None	–	–	–	–	–	Yes	Yes
3.8K (QFHD) 16:9 Surround (3840×2160) Picture size (4268×2400)	MPEG HD422 P	None	Yes	–	Yes	Yes	–	–	–
	FHD ProRes 422 HQ P	None	Yes	Yes	Yes	Yes	–	–	–
	FHD ProRes 422 P	None	Yes	Yes	Yes	Yes	–	–	–

[1]   When the SxS main recording format is set to XAVC, the LUT is off (fixed) for XAVC recording.
[2]   When the SxS recording format is set to MPEG or ProRes, either Log or Look can be selected (FHD only).

Full Menu Operations

The full menu for configuring the required settings for shooting and playback is displayed on the sub display be pressing and holding the MENU button for 2 seconds or longer.

Menu Structure

Shooting menu

Menu used to make settings related to shooting.

Project menu

Menu used to make basic settings for a project.

TC/Media menu

Menu used to make settings related to timecode and recording media.

Monitoring menu

Menu used to make settings related to video output and viewfinder output.

Audio menu

Menu used to make settings related to audio.

Technical menu

Menu used to make settings related to technical matters.

Maintenance menu

Menu used to make unit settings, such as the clock and language settings.

Controls

MENU button (page 8)

Press and hold for 2 seconds or longer to display the full menu on the sub display.

SEL/SET dial (MENU dial) (page 8)

Turn to move the cursor in the corresponding direction to select setting items or setting values. Press the MENU dial to apply the selected item.

BACK button (page 9)

Press to return to the previous menu. Unconfirmed changes are canceled.

Setting Menu Items

Turn the MENU dial to move the cursor to the menu item you want to set, then press the MENU dial to select that item.

- The menu item selection area can show a maximum of nine lines. When all the selectable items cannot be displayed at one time, you can scroll the display up or down by moving the cursor.
- For items having a wide range of available values (example: −99 to +99), the selection area is not displayed. The current setting is highlighted to indicate that the value can be changed.
- If you select Execute for an executable item, the corresponding function is executed.
- When you select an item that you must confirm before execution, a confirmation message appears. Follow the instructions in the message to execute or cancel the operation.

Full Menu List

The functions and available settings of each menu item are given below.

Shooting Menu

Default values are shown underlined and in bold text.

Shooting > FPS
Sets the shooting frame rate.

[Note]
FPS cannot be configured if Project > Basic Setting > SxS Rec Format in the full menu is set to interlaced recording. In this case, the Fixed/Variable Select setting changes to Fixed.

Menu item	Settings	Description
Fixed/Variable Select	**Fixed**/Variable	Selects whether the FPS setting is set to constant speed shooting or variable speed shooting.
FPS Select	When Fixed/Variable Select is set to Fixed, one of the following values is displayed. Fixed 24/Fixed 25/Fixed 30/Fixed 48/Fixed 50/Fixed 60 When Fixed/Variable Select is set to Variable, you can set FPS in the following range. 1 to 60I	Selects the shooting frame rate. The default values vary as shown below depending on the Project Frame Rate setting.

Project Frame Rate	Default when Fixed/Variable Select is Variable	Display value when Fixed/Variable Select is Fixed
59.94	60	Fixed 60
50	50	Fixed 50
47.95	48	Fixed 48
29.97	30	Fixed 30
25	25	Fixed 25
24	24	Fixed 24
23.97	24	Fixed 24

Shooting > Shutter
Makes settings related to the electronic shutter.

Menu item	Settings	Description
Shutter Select	When Shutter Mode (page 63) is set to Speed Default selection options 1/24, 1/25, 1/30, 1/48, 1/50, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000 [1)] When Shutter Mode (page 63) is set to Angle Default selection options 360.0/**180.0**/172.8/144.0/90.0/45.0/22.5/11.2/5.6 When Step/Cont. Select is set to Continuous, the selection range is 360.0 to 4.2 (Angle) or 1/24[1)] to 1/8000[2)] (Speed).	Selects shutter angle or speed of the electronic shutter. The default speed values for different Project Frame Rate (page 54) settings are given below. 23.98/24: 1/24 25: 1/25 29.97: 1/30 47.95: 1/48 50: 1/50 59.94: 1/60
Step/Cont. Select	**Step**/Continuous	Selects whether the electronic shutter values are step values or continuous.
Add/Change Step		Adds or edits a selection option available in Shutter Select in Step mode. Up to 16 selection options can be added.
Delete Step		Deletes a selection option available in Shutter Select in Step mode.

Shooting > ND
Sets the ND filter position.

Menu item	Settings	Description
ND Position	**Clear**/0.3/0.6/0.9/1.2/1.5/1.8/2.1/2.4	Selects the density of the ND filter.

Shooting > Exposure Index
Sets the EI value.

Menu item	Settings	Description

EI Select	The setting changes as follows depending on the Project > Basic Setting > Base ISO (page 54) setting in the full menu.
	ISO 500:
	    125EI/160EI/200EI/250EI/320EI/400EI/500EI/640EI/800EI/1000EI/1250EI/1600EI/2000EI
	ISO 2500:
	    640EI/800EI/1000EI/1250EI/1600EI/2000EI/2500EI/3200EI/4000EI/5000EI/6400EI/8000EI/10000EI
		Selects the EI value.

Shooting > White Balance
Makes settings related to white balance.

Menu item	Settings	Description
Color Temp. Select	3200K+00/4300K+00/5500K+00 + other added options (up to 16)	Displays and selects the color temperature/color tone of the white balance.
Add/Change Step		Adds or edits a selection option by changing the color temperature and tint value of white balance.
Delete Step		Deletes an added selection option.
Auto White Balance	Execute/Cancel	Executes auto white balance (execute by selecting Execute).

Shooting > LUT Select
Makes settings related to the LUT to apply to the output image.

Menu item	Settings	Description
SDI 1/2	Log	Display only, as LUT cannot be applied to the SDI 1/2 output image.
SDI 3/4	Log/Look/---	Selects the LUT to apply to the SDI 3/4 output image.

Monitor	Log/s709/R709(800%)/Look/---
	The default values are given below.
	    When Output Format > SDI 1/2 is 2K/HD: s709
	    When Output Format > SDI 1/2 is 4K/QFHD: Look
		Selects the LUT to apply to the Monitor output image.

Shooting > LUT Select
Makes settings related to the LUT to apply to the output image.

Menu item	Settings	Description

HDMI	Log/s709/R709(800%)/Look
	The default values are given below.
	    When Output Format > SDI 1/2 is 2K/HD: s709
	    When Output Format > SDI 1/2 is 4K/QFHD and HDMI is not 4K/QFHD: Look
	    When Output Format > HDMI is 4K/QFHD: Log
		Displays the LUT to apply to HDMI output image.

VF LUT	Log/s709/R709(800%)	Selects the LUT to apply to the viewfinder/monitor screen output image.
SxS Rec	Log/Look/---	Selects the LUT to apply to SDI Main clip recorded video.
Sub Rec	Log/Look/---	Selects the LUT to apply to SDI Sub clip recorded video.

Shooting > Look
Makes settings related to Preset Look.

Menu item	Settings	Description
Category	Preset Look/User 3D LUT	Selects the LUT category.
Preset Look Select	s709 / R709(800%) / S-Gamut3.Cine/SLog3 / S-Gamut3/SLog3	Selects the Preset Look. Outputs images that are suitable as the starting point for color grading or images that are close to print film quality. s709: Cinema color R709(800%): Faithful color S-Gamut3/SLog3: Wide color space S-Gamut3.Cine/SLog3: Color space for digital cinema [Notes] ● Configurable only when Category is set to Preset Look. ● S-Gamut3/SLog3 can be selected only when Project > Basic Setting > Input Color Space (page 54) in the full menu is set to S-Gamut3/SLog3.
User 3D LUT Select	File name (01 to 16) of User 3D LUT files stored in internal memory	Selects the User 3D LUT file. [Note] Configurable only when Category is set to User 3D LUT.

Shooting > **Look**
Makes settings related to Preset Look.

Menu item	Settings	Description

ASC CDL Process	CDL Off/Look -> CDL/ CDL -> Look	Sets whether to apply ASC CDL to the output video. When applying, specify the ASC CDL processing sequence.
		CDL Off: Do not apply ASC CDL to the output video.
		CDL -> Look: Apply CDL before applying Look.
		Look -> CDL: Apply CDL after applying Look.
		
		[Notes]
		● ASC CDL is enabled for outputs for which Look is selected in Shooting > LUT Select (page 52) in the full menu.
		● The conditions under which the ASC CDL Process options are enabled are given below.
		When an ASC CDL file is not selected:
		    CDL Off
		When an ASC CDL file is selected, and Shooting > Look > Category (page 52) is set to Preset Look:
		    CDL Off / Look -> CDL
		When an ASC CDL file is selected, Shooting > Look > Category is set to User 3D LUT, and Preset Look Select (page 52) is set to s709:
		    CDL Off / Look -> CDL
		When an ASC CDL file is selected, Shooting > Look > Category is set to User 3D LUT, and Preset Look Select is not set to s709:
		    CDL Off / Look -> CDL / CDL -> Look

ASC CDL Select	No File/Not Selected	Selects the ASC CDL registered in the unit.
ASC CDL Information		Displays information about the ASC CDL selected by ASC CDL Select.

Shooting > **Look File**
Loads a User 3D LUT file into the unit.

Menu item	Settings	Description
Load User 3D LUT		Loads a User 3D LUT file stored on an SD card into the unit.
Reset User 3D LUT		Resets a User 3D LUT data setting.
Reset All User 3D LUTs	Execute/Cancel	Resets all User 3D LUT data settings (execute by selecting Execute).
Load ASC CDL		Loads ASC CDL data from an SD card.
Reset ASC CDL		Resets an ASC CDL data setting.
Reset All ASC CDLs	Execute/Cancel	Resets all ASC CDL data settings (execute by selecting Execute).

[1] The options are 1/60 and subsequent values when the project frame rate is 59.94, 1/50 and subsequent values when 50.0, 1/30 and subsequent values when 29.97, and 1/25 and subsequent values when 25.0.

[2] The options are 1/7000 and preceding values when the project frame rate is 50.0 or 25.0, and 1/6000 and preceding values when 24.0 or 23.98.

Project Menu

Default values are shown underlined and in **bold** text.

Project > Basic Setting
    Makes settings related to picture size and project frame rate.

Menu item	Settings	Description
Imager Mode	6K 3:2/6K 1.85:1/6K 17:9/ 6K 2.39:1/5.7K 16:9/4K 6:5/ 4K 4:3/4K 4:3 Surround View/ <u>4K 17:9</u>/4K 17:9 Surround View/ 3.8K 16:9/3.8K 16:9 Surround View	Selects the effective picture size. [Notes] ● 6K 3:2/6K 1.85:1/6K 17:9 are displayed only when a Full Frame license is installed. ● 4K 6:5/4K 4:3/4K 4:3 Surround View are displayed only when an Anamorphic license is installed.
Project Frame Rate	<u>23.98</u>/24/25/29.97/47.95/50/ 59.94	Selects the project frame rate.
Input Color Space	<u>S-Gamut3.Cine/SLog3</u> / S-Gamut3/SLog3	Sets the color space.
AXS Rec Format (Only when an AXS-R7 is attached)	<u>Rec Off</u>/RAW SQ/X-OCN XT/ X-OCN ST/X-OCN LT	Selects the video format for recording onto an AXS memory card inserted into an AXS-R7.
SxS Rec Format	Rec Off/XAVC 4K Class480/ <u>XAVC 4K Class300</u>/ XAVC QFHD Class480/ XAVC QFHD Class300/ MPEG HD P/MPEG HD i/ ProRes 422 HQ HD P/ ProRes 422 HQ HD i/ ProRes 422 HD P/ ProRes 422 HD i/ ProRes Proxy HD P/ ProRes Proxy HD i	Selects the video format to be recorded on an SxS memory card.
Sub Rec Format	<u>Rec Off</u>/MPEG HD P/ MPEG HD i/ ProRes 422 Proxy HD P/ ProRes 422 Proxy HD i	Selects the sub recording format for SxS memory cards.
Base ISO	<u>ISO 500</u>/ISO 2500	Sets the base ISO sensitivity.

Project > Basic Setting
    Makes settings related to picture size and project frame rate.

Menu item	Settings	Description
SxS/Output De-Squeeze	<u>Off (1.0×)</u>/1.25×/1.3×/1.5×/ 1.8×/2.0×	Sets the de-squeeze processing for SxS recording signals and video output signals. This setting is available when an Anamorphic license is installed and Imager Mode is set to 4K 4:3/4K 4:3 Surround View/4K 6:5/4K 17:9/4K 17:9 Surround View/6K 3:2/6K 17:9, or when an Anamorphic license and Full Frame license are installed and Imager Mode is set to 6K 3:2/6K 17:9. The options vary depending on the picture size.

Imager Mode	SxS/Output De-Squeeze					
	Off (1.0×)	1.25×	1.3×	1.5×	1.8×	2.0×
6K 6048×4032 3:2	Yes	Yes	Yes	Yes	Yes	Yes
6K 6054×3192 17:9	Yes	Yes	Yes	–	–	Yes
4K 4096×3432 6:5	Yes	–	–	–	–	Yes
4K 4096×3024 4:3	Yes	–	Yes	–	–	Yes
4K 4096×3024 4:3 Surround	Yes	–	Yes	–	–	Yes
4K 4096×2160 17:9	Yes	Yes	Yes	–	–	Yes
4K 4096×2160 17:9 Surround	Yes	Yes	Yes	–	–	Yes

Project > Special Recording
    Makes settings related to picture cache recording.

Menu item	Settings	Description
Cache Rec Select	On/<u>Off</u>	Turns the picture cache recording function on/off. Picture cache recording is not supported (set to Off and grayed out) in the following cases. ● When XAVC-I Class480 (4K, QFHD) recording format is selected ● For some combinations of effective picture size and system frequency settings ● When AXS Rec Format and SxS Rec Format are both set to Rec Off ● During simultaneous AXS and SxS recording

Project > **Special Recording**
Makes settings related to picture cache recording.

Menu item	Settings	Description
Cache Rec Duration	0-2sec/2-4sec/4-6sec/ 6-8sec/8-10sec/13-15sec/ 22-24sec/28-30sec	Sets the playback duration of video to cache in picture cache memory. The maximum value that can be set for each memory card is given below.

When recording to an SxS memory card

SxS Rec Format	Project Frame Rate						
	23.98	24	25	29.97	47.95	50	59.94
4K/QFHD XAVC-I Class480	–	–	–	–	–	–	–
4K/QFHD XAVC-I Class300	0-2	0-2	0-2	0-2	–	–	–
2K/FHD ProRes 422 HQ P	0-2	0-2	0-2	0-2	–	–	–
2K/FHD ProRes 422 HQ i	–	–	–	–	–	0-2	0-2
2K/FHD ProRes 422 P	4-6	4-6	4-6	4-6	–	0-2	0-2
2K/FHD ProRes 422 i	–	–	–	–	–	4-6	4-6
MPEG HD422 P	13-15	–	13-15	13-15	–	–	–
MPEG HD422 i	–	–	–	–	–	13-15	13-15

When recording to an AXS memory card

Imager Mode	AXS Rec Format	Project Frame Rate						
		23.98	24	25	29.97	47.95	50	59.94
6K 6048×4032 3:2	X-OCN XT	2-4	2-4	0-2	–	–	–	–
	X-OCN ST	6-8	6-8	6-8	–	–	–	–
	X-OCN LT	13-15	13-15	13-15	–	–	–	–
6K 6054×3272 1.85:1	X-OCN XT	4-6	4-6	4-6	2-4	–	–	–
	X-OCN ST	8-10	8-10	8-10	6-8	–	–	–
	X-OCN LT	22-24	22-24	22-24	13-15	–	–	–
6K 6054×3192 17:9	X-OCN XT	4-6	4-6	4-6	2-4	–	–	–
	X-OCN ST	8-10	8-10	8-10	6-8	–	–	–
	X-OCN LT	22-24	22-24	22-24	13-15	–	–	–
6K 6048×2534 2.39:1	X-OCN XT	8-10	8-10	8-10	4-6	–	–	–
	X-OCN ST	13-15	13-15	13-15	8-10	–	–	–
	X-OCN LT	28-30	28-30	28-30	22-24	–	–	–
5.7K 5674×3192 16:9	X-OCN XT	4-6	4-6	4-6	2-4	–	–	–
	X-OCN ST	8-10	8-10	8-10	6-8	–	–	–
	X-OCN LT	22-24	22-24	22-24	13-15	–	–	–

Project > **Special Recording**
Makes settings related to picture cache recording.

Menu item	Settings	Description

Imager Mode	AXS Rec Format	Project Frame Rate						
		23.98	24	25	29.97	47.95	50	59.94
4K 4096×3432 6:5	X-OCN XT	8-10	8-10	8-10	6-8	–	–	–
	X-OCN ST	13-15	13-15	13-15	13-15	–	–	–
	X-OCN LT	28-30	28-30	28-30	28-30	–	–	–
4K 4096×3024 4:3	X-OCN XT	13-15	13-15	8-10	8-10	2-4	–	–
	X-OCN ST	22-24	22-24	22-24	13-15	6-8	–	–
	X-OCN LT	28-30	28-30	28-30	28-30	13-15	–	–
4K 4096×3024 4:3 Surround	X-OCN XT	13-15	13-15	8-10	8-10	–	–	–
	X-OCN ST	22-24	22-24	22-24	13-15	–	–	–
	X-OCN LT	28-30	28-30	28-30	28-30	–	–	–
4K 4096×2160 17:9	RAW SQ	22-24	22-24	22-24	13-15	6-8	6-8	4-6
	X-OCN XT	22-24	22-24	22-24	13-15	6-8	6-8	4-6
	X-OCN ST	28-30	28-30	28-30	28-30	13-15	13-15	8-10
	X-OCN LT	28-30	28-30	28-30	28-30	28-30	28-30	22-24
4K 4096×2160 17:9 Surround	RAW SQ	22-24	22-24	22-24	13-15	–	–	–
	X-OCN XT	22-24	22-24	22-24	13-15	–	–	–
	X-OCN ST	28-30	28-30	28-30	28-30	–	–	–
	X-OCN LT	28-30	28-30	28-30	28-30	–	–	–
3.8K(QFHD) 3840×2160 16:9	X-OCN XT	22-24	22-24	22-24	13-15	–	6-8	4-6
	X-OCN ST	28-30	28-30	28-30	28-30	–	13-15	8-10
	X-OCN LT	28-30	28-30	28-30	28-30	–	28-30	22-24
3.8K(QFHD) 3840×2160 16:9 Surround	X-OCN XT	22-24	22-24	22-24	13-15	–	–	–
	X-OCN ST	28-30	28-30	28-30	28-30	–	–	–
	X-OCN LT	28-30	28-30	28-30	28-30	–	–	–

Project > **Assignable Button**
Assigns functions to assignable buttons.

For details about assigning functions, see "User Functions Screen" (page 37).

Menu item	Settings	Description
<1>	page 37	Assigns a function to assignable button 1.
<2>	page 37	Assigns a function to assignable button 2.
<3>	page 37	Assigns a function to assignable button 3.
<4>	page 37	Assigns a function to assignable button 4.
<User 1>	page 37	Assigns a function to ITEM key 1.
<User 2>	page 37	Assigns a function to ITEM key 2.
<User 3>	page 37	Assigns a function to ITEM key 3.
<User 4>	page 37	Assigns a function to ITEM key 4.
<User 5>	page 37	Assigns a function to ITEM key 5.

Project > **All File**
Makes settings related to All-settings files.

Menu item	Settings	Description
Load SD Card		Load an All-settings file from an SD card.
Save SD Card		Save an All-settings file on an SD card.
File ID		Displays the file ID of the All-settings file for editing.
Format SD Card		Formats an SD card.

TC/Media Menu

Default values are shown underlined and in bold text.

TC/Media > **Timecode**
Makes settings related to timecode.

Menu item	Settings	Description
Mode	Preset F-Run (Ext-Lk)/ Preset R-Run/Int Regen	Selects the timecode mode. Preset F-Run (Ext-Lk): Timecode advances continuously from specified value, in sync with external input timecode. Preset R-Run: Timecode advances from specified value only when recording. Int Regen: Timecode continues from that of the previous clip.
Manual Setting	00:00:00:00 to 23:59:59:29	Sets an arbitrary timecode value.
Reset	Execute/Cancel	Resets the timecode to 00:00:00:00 (execute by selecting Execute).
TC Format	DF/NDF	Selects the timecode format. DF: Drop frame NDF: Non drop frame
TC Source	Internal/External	Displays the TCG sync source.
Time Data Display	Timecode/Duration	Selects the time data to display.

TC/Media > **Clip Name Format**
Sets clip names. (Clip name: Camera ID + Reel Number + Shot Number + date + random string)

Menu item	Settings	Description
Camera ID	A to Z	Sets the camera ID used when generating clip names.
Reel Number	001 to 999	Sets the numeric portion of the Reel Number used when generating clip names.
Camera Position	C/L/R	Sets the first character portion of the Shot Number used when generating clip names.

TC/Media > **Clip Name Format**
Sets clip names. (Clip name: Camera ID + Reel Number + Shot Number + date + random string)

Menu item	Settings	Description
SxS Root Folder Name	XDROOT/Cam ID + Reel#	Sets the naming format for the volume label and root folder names on an SxS card. XDROOT: Root folder is named "XDROOT". Cam ID + Reel#: Volume label name and root folder name follow the Cam ID naming format. [Notes] • If the setting is changed, playback is not possible on Sony camcorders and VTRs other than the MPC-3610 and PMW-PZ1 (setting must be changed on PMW-PZ1). • Changes to volume label name and root folder name are applied when recording starts. • On media in which the root folder name has been set to Camera ID naming format, the root folder name cannot be reset to "XDROOT" using this setting. • The root folder is set to "XDROOT" when media is formatted. • If media recorded with a root folder name in Camera ID naming format is inserted into a device that does not support Camera ID naming format (including Venice V2.0 or earlier), an XDROOT folder is created and recognized as the root folder (because a root folder in Camera ID naming format cannot be recognized).

TC/Media > **Format Media**
Formats media.

Menu item	Settings	Description
AXS Slot A (Only when an AXS-R7 is attached)	Execute/Cancel	Initializes the AXS memory card in slot A (execute by selecting Execute).
AXS Slot B (Only when an AXS-R7 is attached)	Execute/Cancel	Initializes the AXS memory card in slot B (execute by selecting Execute).
SxS Slot A	Execute/Cancel	Initializes the SxS memory card in slot A (execute by selecting Execute).
SxS Slot B	Execute/Cancel	Initializes the SxS memory card in slot B (execute by selecting Execute).
SD Card	Execute/Cancel	Formats the SD card (execute by selecting Execute).

TC/Media > **Update Media**
Updates the media's management file.

Menu item	Settings	Description
AXS Slot A (Only when an AXS-R7 is attached)	Execute/Cancel	Updates the management file on the AXS memory card in slot A of the AXS-R7 (execute by selecting Execute).
AXS Slot B (Only when an AXS-R7 is attached)	Execute/Cancel	Updates the management file on the AXS memory card in slot B of the AXS-R7 (execute by selecting Execute).
SxS Slot A	Execute/Cancel	Updates the management file on the SxS memory card in slot A (execute by selecting Execute).
SxS Slot B	Execute/Cancel	Updates the management file on the SxS memory card in slot B (execute by selecting Execute).

Monitoring Menu

Default values are shown underlined and in bold text.

Monitoring > Output Format
Makes settings related to output format.

Menu item	Settings	Description
SDI 1/2	The available settings vary according to the imager mode, project frame rate, and SxS recording format settings.	Selects the SDI 1/2 output format. Settings vary according to the recording format (page 86).
SDI 3/4	The available settings vary depending on the SDI 1/2 setting.	Selects the SDI 3/4 output format. Settings vary according to the recording format (page 86).
Monitor	The available settings vary depending on the SDI 1/2 setting.	Selects the Monitor output format. Settings vary according to the recording format (page 90).
HDMI	The available settings vary depending on the SDI 1/2 setting.	Selects the HDMI output format. Settings vary according to the recording format (page 90).

Monitoring > OSD Appearance
Makes settings related to information and frame lines superimposed on each output signal.
On/Off setting is selected using a checkbox (excluding Frame Line on Playback).
On: Checkbox selected
Off: Checkbox cleared

Menu item	Settings	Description
VF	Status Info (On/Off, Info. A/Info. B)	Selects the information to display superimposed on the viewfinder/monitor screen output image.
	Frame Line (On/Off, Line A/Line B)	Selects the frame lines to display superimposed on the viewfinder/monitor screen output image.
SDI SDI 1/2 SDI 3/4 [Note] The display changes according to the Output Format > SDI 1/2 and SDI 3/4 settings.	Status Info (On/Off, Info. A/Info. B)	Selects the information to display superimposed on the SDI3/4 output signal.
	Frame Line (On/Off, Line A/Line B)	Selects the frame lines to display superimposed on the SDI3/4 output signal.
Monitor	Status Info (On/Off, Info. A/Info. B)	Selects the information to display superimposed on the SDI3/4 output signal.
	Frame Line (On/Off, Line A/Line B)	Selects the frame lines to display superimposed on the SDI3/4 output signal.

Monitoring > OSD Appearance
Makes settings related to information and frame lines superimposed on each output signal.
On/Off setting is selected using a checkbox (excluding Frame Line on Playback).
On: Checkbox selected
Off: Checkbox cleared

Menu item	Settings	Description
HDMI	Same as SDI/Same as Monitor	Selects whether the information displayed superimposed on the HDMI output signal is the same as for the SDI output or Monitor output.
Status Info A/B Setup	Project Info. A (On/Off) Info. B (On/Off)	Selects whether to display the project in the output information set for Status Info A and Status Info B.
	Timecode Info. A (On/Off) Info. B (On/Off)	Selects whether to display the timecode in the output information set for Status Info A and Status Info B.
	Audio Level Meter Info. A (On/Off) Info. B (On/Off)	Selects whether to display an audio level meter in the output information set for Status Info A and Status Info B.
	Look Status Info. A (On/Off) Info. B (On/Off)	Selects whether to display the type of selected Look in the output information set for Status Info A and Status Info B.
	Output LUT Info. A (On/Off) Info. B (On/Off)	Selects whether to display the output LUT in the output information set for Status Info A and Status Info B.
	Recording LUT Info. A (On/Off) Info. B (On/Off)	Selects whether to display the recording LUT in the output information set for Status Info A and Status Info B.
	VF Status Info. A (On/Off) Info. B (On/Off)	Selects whether to display the viewfinder status in the output information set for Status Info A and Status Info B.
	Lens Status Info. A (On/Off) Info. B (On/Off)	Selects whether to display the lens status in the output information set for Status Info A and Status Info B.
	Remote Control Status Info. A (On/Off) Info. B (On/Off)	Selects whether to display the remote control status in the output information set for Status Info A and Status Info B.

Monitoring > **OSD Appearance**

Makes settings related to information and frame lines superimposed on each output signal.

On/Off setting is selected using a checkbox (excluding Frame Line on Playback).

On: Checkbox selected

Off: Checkbox cleared

Menu item	Settings	Description
Frame Line A/B Setup	Center Marker 　Line A (On/Off) 　Line B (On/Off) 　Option (Cross/Open Cross/ 　Dot)	Selects whether to display the center marker in the output information set for Frame Line A and Frame Line B. Selects the display form (Cross/Open Cross/Dot) of the center marker.
	Aspect Ratio 　Line A (On/Off) 　Line B (On/Off) 　Option (17:9/16:9/15:9/14:9/ 　13:9/4:3/1.66:1/1.85:1/2:1/ 　2.35:1/2.39:1)	Selects whether to display the aspect ratio marker in the output information set for Frame Line A and Frame Line B. Selects the mode (17:9/16:9/15:9/14:9/13:9/4:3/1.66:1/1.85:1/2:1/2.35:1/2.39:1) when displaying the aspect ratio marker.
	Aspect Safety Zone 　Line A (On/Off) 　Line B (On/Off) 　Option 　(80%/90%/92.5%/95%)	Selects whether to display the aspect safety zone in the output information set for Frame Line A and Frame Line B. Selects the size (percentage of the entire screen) of the aspect safety zone marker.
	Picture Area 　Line A (On/Off) 　Line B (On/Off)	Selects whether to display the picture area in the output information set for Frame Line A and Frame Line B.
	Safety Zone 　Line A (On/Off) 　Line B (On/Off) 　Option 　(80%/90%/92.5%/95%)	Selects whether to display the safety zone in the output information set for Frame Line A and Frame Line B. Selects the range (80%/90%/92.5%/95%) of the safety zone.
	User Frame Line 　Line A (On/Off) 　Line B (On/Off)	Selects whether to display the user frame lines in the output information set for Frame Line A and Frame Line B.
	Color 　Option (White/Yellow/Cyan/ 　Green/Magenta/Red/Blue)	Sets the display color of frame lines.
	Surround View Type 　Option (Line/Mask)	Selects the display form of the Surround View marker. Line: Displays the recording area using lines. Mask: Displays the recording area by masking (reducing) the video signal level outside the recording area.

Monitoring > **OSD Appearance**

Makes settings related to information and frame lines superimposed on each output signal.

On/Off setting is selected using a checkbox (excluding Frame Line on Playback).

On: Checkbox selected

Off: Checkbox cleared

Menu item	Settings	Description
	Aspect Ratio Type 　Option (Line/Mask)	Selects the display form of the aspect ratio marker. Line: Displays lines with color set by Color. Mask: Displays a lower video signal level for areas outside the marker area.
	Mask Level 　Option (0 to 15 (12))	Selects the brightness of the image outside the marker when Aspect Ratio Type or Surround View Type is set to Mask.
	Frame Line on Playback 　Option (On/Off)	Turns the function to superimpose frame lines during playback on/off.

Monitoring > **Monitor Display**

Makes settings related to monitor display.

Menu item	Settings	Description
Focus Distance Format	Meter/Feet	Selects the focus position display units.

Monitoring > **Frame Line**

Makes settings related to lines and markers displayed on the output image.

Menu item	Settings	Description
Center Marker	Cross/Open Cross/Dot	Selects the display form of the center marker.
Aspect Ratio	17:9/16:9/15:9/14:9/13:9/4:3/ 1.66:1/1.85:1/2:1/2.35:1/2.39:1	Selects the mode when displaying the aspect ratio marker.
Aspect Safety Zone	80%/90%/92.5%/95%	Selects the size (percentage of the entire screen) of the aspect safety zone marker.
Safety Zone	80%/90%/92.5%/95%	Selects the safety zone range.
Color	White/Yellow/Cyan/Green/ Magenta/Red/Blue	Selects the display color of frame lines.
Surround View Type	Line/Mask	Selects the display form of the Surround View marker. Line: Displays the recording area using lines. Mask: Displays the recording area by masking (reducing) the video signal level outside the recording area.
Aspect Ratio Type	Line/Mask	Selects the display form of the aspect ratio marker. Line: Displays lines with color set by Color. Mask: Displays a lower video signal level for areas outside the marker area.
Mask Level	0 to 15 (12)	Selects the brightness of the image outside the marker when Aspect Ratio Type or Surround View Type is set to Mask.

Monitoring > **Frame Line**
　　Makes settings related to lines and markers displayed on the output image.

Menu item	Settings	Description
Frame Line on Playback	On/Off	Turns the function to superimpose frame lines during playback on/off.

Monitoring > **User Frame Line**
　　Makes settings related to the user frame lines.

Menu item	Settings	Description
Width	3 to 479 (240)	Sets the user frame line width (distance from the center to the left and right edges).
Height	3 to 269 (135)	Sets the user frame line height (distance from the center to the top and bottom edges).
H Position	Max. −476 to 476 (±0)	Sets the horizontal position of the center of the user frame lines. The setting range becomes narrower as the Width setting increases above 3.
V Position	Max. −266 to 266 (±0)	Sets the vertical position of the center of the user frame lines. The setting range becomes narrower as the Height setting increases above 3.

Monitoring > **False Color**
　　Makes settings related to false colors.

Menu item	Settings	Description
Level	Preset/Manual	Sets whether to use the preset on/off setting and threshold of each false color in the viewfinder/monitor output or to set colors manually. When Manual is selected, the following items can be configured.
Red	On/Off	Turns the display of red on/off.
Red Upper Limit	0.0% to 109.0% (96.1%) (0.1% increments)	Sets the upper limit for display in red.
Red Lower Limit	0.0% to 109.0% (93.4%) (0.1% increments)	Sets the lower limit for display in red.
Yellow	On/Off	Turns the display of yellow on/off.
Yellow Upper Limit	0.0% to 109.0% (93.4%) (0.1% increments)	Sets the upper limit for display in yellow.
Yellow Lower Limit	0.0% to 109.0% (91.3%) (0.1% increments)	Sets the lower limit for display in yellow.
Orange	On/Off	Turns the display of orange on/off.
Orange Upper Limit	0.0% to 109.0% (90.6%) (0.1% increments)	Sets the upper limit for display in orange.

Monitoring > **False Color**
　　Makes settings related to false colors.

Menu item	Settings	Description
Orange Lower Limit	0.0% to 109.0% (87.7%) (0.1% increments)	Sets the lower limit for display in orange.
Pink	On/Off	Turns the display of pink on/off.
Pink Upper Limit	0.0% to 109.0% (58.0%) (0.1% increments)	Sets the upper limit for display in pink.
Pink Lower Limit	0.0% to 109.0% (54.3%) (0.1% increments)	Sets the lower limit for display in pink.
Light Pink	On/Off	Turns the display of light pink on/off.
Light Pink Upper Limit	0.0% to 109.0% (50.8%) (0.1% increments)	Sets the upper limit for display in light pink.
Light Pink Lower Limit	0.0% to 109.0% (47.8%) (0.1% increments)	Sets the lower limit for display in light pink.
Cyan	On/Off	Turns the display of cyan on/off.
Cyan Upper Limit	0.0% to 109.0% (46.5%) (0.1% increments)	Sets the upper limit for display in cyan.
Cyan Lower Limit	0.0% to 109.0% (43.8%) (0.1% increments)	Sets the lower limit for display in cyan.
Green	On/Off	Turns the display of green on/off.
Green Upper Limit	0.0% to 109.0% (42.2%) (0.1% increments)	Sets the upper limit for display in green.
Green Lower Limit	0.0% to 109.0% (38.9%) (0.1% increments)	Sets the lower limit for display in green.
Light Blue	On/Off	Turns the display of light light blue on/off.
Light Blue Upper Limit	0.0% to 109.0% (34.4%) (0.1% increments)	Sets the upper limit for display in light blue.
Light Blue Lower Limit	0.0% to 109.0% (24.6%) (0.1% increments)	Sets the lower limit for display in light blue.
Blue	On/Off	Turns the display of blue on/off.
Blue Upper Limit	0.0% to 109.0% (5.6%) (0.1% increments)	Sets the upper limit for display in blue.
Blue Lower Limit	0.0% to 109.0% (3.5%) (0.1% increments)	Sets the lower limit for display in blue.
Purple	On/Off	Turns the display of purple on/off.
Purple Upper Limit	0.0% to 109.0% (3.5%) (0.1% increments)	Sets the upper limit for display in purple.
Purple Lower Limit	−7.3% to 109.0% (−7.3%) (0.1% increments)	Sets the lower limit for display in purple.
Reset	Execute/Cancel	Resets the on/off setting and threshold of each color (execute by selecting Execute).

Monitoring > VF Display
  Makes settings related to the viewfinder display.

Menu item	Settings	Description
VF LUT	Log/s709/R709(800%)	Selects the LUT to apply to the viewfinder/monitor screen output image.
Status Info	Info. A/Info. B/Off	Selects the information to display superimposed on the viewfinder/monitor screen output image.
Frame Line	Frame Line A/Frame Line B/Off	Selects the frame lines to display superimposed on the viewfinder/monitor screen output image.
VF Magnifier Ratio	×2.0 / ×4.0 / ×2.0/×4.0	Selects the focus magnification ratio for the viewfinder.
Color	−99 to ±0 to +99	Adjusts the color depth of the viewfinder image.

Monitoring > VF Function
  Makes settings related to viewfinder functions.

Menu item	Settings	Description
Double Speed Scan	On/Off	Turns the viewfinder double speed scan function on/off.
Peaking Frequency	Normal/High	Selects whether the peaking frequency is normal or high during peaking. [Note] The peaking level is set using the viewfinder menu.
Zebra	On/Off	Turns the zebra function on/off.
Zebra Select	1/2/Both	Selects the zebra pattern type (Zebra 1, Zebra 2, Both).
Zebra1 Level	0% to 107% (41%)	Sets the display level of zebra 1.
Zebra1 Aperture Level	1% to 20% (10%)	Sets the aperture level of zebra 1.
Zebra2 Level	0% to 109% (61%)	Sets the display level of zebra 2.

Audio Menu

Default values are shown underlined and in bold text.

Audio > Audio Input
  Makes settings related to audio recording levels.

[Note]
The audio recording level with AES/EBU signal selected is fixed.

Menu item	Settings	Description
CH-1 Audio Select	Auto/Manual	Automatically adjusts the audio recording when set to Auto.
CH-2 Audio Select	Auto/Manual	Automatically adjusts the audio recording when set to Auto.
CH-1 Audio Level	−99 to ±0 to +99	Adjusts the audio recording level when CH-1 Audio Select is set to Manual.
CH-2 Audio Level	−99 to ±0 to +99	Adjusts the audio recording level when CH-2 Audio Select is set to Manual.
MIC Reference	−60dB/−50dB/−40dB	Selects the reference input level of the microphone.

Audio > Audio Monitor
  Makes settings related to audio monitoring.

Menu item	Settings	Description

Monitor CH	When Monitor Output CH Pair is set to CH-1/CH-2
	  CH-1/CH-2, CH-1, CH-2
	When Monitor Output CH Pair is set to CH-3/CH-4
	  CH-3/CH-4, CH-3, CH-4
		Selects the audio channel that is output to the headphones and speaker.
		CH-1/CH-2 (CH-3/CH-4): Channel 1+2 (Channel 3+4)
		CH-1 (CH-3): Channel 1 (Channel 3) only
		CH-2 (CH-4): Channel 2 (Channel 4) only

Monitor Level	0 to 99	Adjusts the monitor audio level.

Audio > Audio Configuration
  Makes settings related to audio input/output.

Menu item	Settings	Description
Alarm Level	0 to 99	Adjusts the alarm audio level. [Note] This also sets the audio level of the beep emitted when recording starts/stops if Technical > Switch & Rec Light > Rec Start/Stop Beep in the full menu is set to On.
Input Limiter Mode	Off/−6dB/−9dB/−12dB/−15dB/−17dB	Selects the limiter characteristic (saturation level) for large input signals when adjusting the audio input level manually. Select Off if not using the limiter.
AGC Level	−6dB/−9dB/−12dB/−15dB/−17dB	Selects the AGC characteristic (saturation level).

Audio > Audio Configuration
    Makes settings related to audio input/output.

Menu item	Settings	Description
AGC Mono/Stereo	Mono/Stereo	Automatically adjusts the input level of analog audio signals recorded on channels 1 and 2, and selects whether to make the adjustments separately for each channel (Mono) or in stereo mode (Stereo).
MIC Input Mono/Stereo	Mono/Stereo	Selects whether the front microphone is monaural (Mono) or stereo (Stereo).
Phantom Power +48V	On/Off	Turns the function to supply a +48 V external source (phantom power) to the microphone on/off.
Monitor Output CH Pair	CH-1/CH-2, CH-3/CH-4	Sets the audio output channels to either channels 1 and 2 or channels 3 and 4.
Headphone Mono/ST	Mono/Stereo	Sets the headphones output to monaural (Mono) or stereo (Stereo).

Technical Menu

Default values are shown underlined and in bold text.

Technical > Test Signals
    Makes settings related to color bars.

Menu item	Settings	Description
Color Bars	On/Off	Turns color bars on/off.
Color Bars Type	ARIB/SMPTE	Selects the type of color bars.
1KHz Tone on Color Bars	On/Off	Turns the function to output a 1 kHz test signal in color bars mode on/off.
Test Saw	On/Off	Turns the test signal on/off.

Technical > Switch & Rec Light
    Makes settings related to the REC button.

Menu item	Settings	Description
Lock Operator Side	without Rec Button/ with Rec Button	Sets whether to lock the REC button operation when buttons are locked using the LOCK switch on the Operator side.
Lock Assistant Side	without Rec Button/ with Rec Button	Sets whether to lock the REC button operation when buttons are locked using the LOCK switch on the Assistant side.
Rec Light	On/Off	Turns the REC lamp on/off.
Rec Start/Stop Beep	On/Off	Turns the function to emit a beep sound when recording starts and stops on/off.

Technical > System Configuration
    Makes settings related to control of the unit.

Menu item	Settings	Description
Fan Control	Auto / Max / Off in Rec/Auto / Off in Rec/Max	Selects the fan control mode. Auto: Controls the fan automatically in response to the internal temperature. Max: Fan rotates at maximum speed. Off in Rec/Auto: The fan is silent when recording, and operates automatically in response to the internal temperature when not recording. Off in Rec/Max: The fan is silent when recording, and rotates at maximum speed when not recording.
Lens Interface	Type C/Off	Sets the lens interface, before attaching a lens, according to the lens type to attach. [Note] If changing this setting while the lens is attached to the unit, turn the turn off and then on again.

Technical > System Configuration
Makes settings related to control of the unit.

Menu item	Settings	Description
Lens 12pin	On/Off	Turns the 12-pin lens interface on/off.
		[Note] If changing this setting while the lens is attached to the unit, turn the turn off and then on again.
SDI Rec Remote Trigger	Off / HD SDI Remote I/F / Parallel Rec	Selects the SDI remote mode control method. Off: Disables remote control. HD SDI Remote I/F: Uses HD SDI Remote control method. Parallel Rec: Uses valid flag control method.
SD HDMI	On/Off	Turns the function to set the HDMI output signal to SD format on/off.
Shutter Mode	Speed/Angle	Selects the operating mode of the electronic shutter.

Technical > Special Configuration
Makes settings related to screen flip and noise reduction functions.

Menu item	Settings	Description
Flip Image	Normal/Horizontal Flip	Turns the screen flip function on/off.
		[Note] AXS recording images are stored unflipped.
NR(4K 17:9/16:9 AXS)	On/Off	Turns the 4K 17:9/16:9 AXS recording image noise reduction on/off.
		[Note] Set to Off (fixed) when the following functions are enabled. • Select FPS • SxS/Output De-Squeeze: Settings other than Off(1.0×) • Flip Image: Horizontal Flip

Technical > Authentication
Makes basic settings related to network authentication.

Menu item	Settings	Description
User Name	(Displays the current user name.)	Sets the user name to use for access authentication. Set to "admin" by factory default.
Password	(*******)	Sets the password to use for access authentication. Set to "mpc3610" by factory default.

Technical > Network
Makes settings related to the network.

Menu item	Settings	Description
Setting	LAN/Wireless/Off	Turns the network connection on/off.
LAN	DHCP (On/Off)	Enables/disables DHCP. When set to [On], an IP address is automatically assigned to the unit. To enter the IP address of the unit manually, set to [Off].
	IP Address (DHCP/On: obtain automatically, DHCP/Off: 192.168.2.50)	Enter the IP address of the unit. Enabled only when DHCP is [Off].
	Subnet Mask (DHCP/On: obtain automatically, DHCP/Off: 255.255.255.0)	Enter the subnet mask of the unit. Enabled only when DHCP is [Off].
Wireless	Network Mode (Access Point/Station)	Sets the network mode for wireless connections.
	Scan Networks (Execute/Cancel)	Scans for access points for connection destinations (execute by selecting Execute).
		[Note] Configurable only when Network Mode is set to Station.

	SSID	When Network Mode is set to Access Point
		    Displays the SSID for the wireless connection to the unit.
		When Network Mode is set to Station
		    Displays/configures the SSID of the connection destination access point.

		[Note] Valid characters for display and entry: Alphabetic (A to Z, a to z) Numeric (0 to 9 -.@—_()) Symbols (!"#$%&'*+,/:;<=>?[\]^`{|}~)

	Password	When Network Mode is set to Access Point
		    Displays the password for wireless connection to the unit.
		When Network Mode is set to Station
		    Displays/configures the password of the connection destination access point.

		[Note] Valid characters for display and entry: Alphabetic (A to Z, a to z) Numeric (0 to 9 -.@—_()) Symbols (!"#$%&'*+,/:;<=>?[\]^`{|}~)
	WPS (Execute/Cancel)	Starts connection setup using WPS (execute by selecting Execute).

Technical > Network
　Makes settings related to the network.

Menu item	Settings	Description
	Channel (Auto(5GHz)/Auto/CH1/CH2/CH3/CH4/CH5/CH6/CH7/CH8/CH9/CH10/CH11)	Sets the channel of the access point. [Notes] • Configurable only when Network Mode is set to Access Point. • Auto(5GHz) may not be displayed, depending on the wireless LAN module being used. Check whether use of the wireless LAN module is supported in your country/region. For details, refer to the operating instructions of the wireless LAN module.
	DHCP (On/Off)	Enables/disables DHCP. When set to [On], an IP address is automatically assigned to the unit. To enter the IP address of the unit manually, set to [Off]. [Note] Configurable only when Network Mode is set to Station.
	IP Address (DHCP/On: obtain automatically, DHCP/Off: 192.168.1.50)	Enter the IP address of the unit. Enabled only when DHCP is [Off]. [Note] Configurable only when Network Mode is set to Station.
	Subnet Mask (DHCP/On: obtain automatically, DHCP/Off: 255.255.255.0)	Enter the subnet mask of the unit. Enabled only when DHCP is [Off]. [Note] Configurable only when Network Mode is set to Station.
	MAC Address	Displays the MAC address of the wireless LAN adaptor connected to the unit.
	Regenerate Password (Execute/Cancel)	Regenerates the password (execute by selecting Execute). [Note] Executable only when Network Mode is set to Access Point.

Technical > APR
　Executes APR (Auto Pixel Restoration: auto adjustment of the image sensor).

Menu item	Settings	Description
APR	Execute/Cancel	Executes the automatic pixel noise reduction function (execute by selecting Execute).
Reset	Execute/Cancel	Deletes white flecks added by execution of the APR function (execute by selecting Execute).

Technical > Battery
　Makes settings related to batteries.

Menu item	Settings	Description
Near End:Info Battery	5% to 100% (5% increments)	Sets the threshold value at which the remaining battery capacity indicator starts flashing when using an InfoLithium battery.
End:Info Battery	0% to 5%	Sets the threshold value for displaying the "Battery End" warning when using an InfoLithium battery.
Near End:Sony Battery	11.5V to 17V (0.1V increments)	Sets the threshold value at which the remaining battery capacity indicator starts flashing when using a Sony non-InfoLithium battery.
End:Sony Battery	11.0V to 11.5V (0.1V increments)	Sets the threshold value for displaying the "Battery End" warning when using a Sony non-InfoLithium battery.
Near End:Other Battery	11.5V to 17V (11.8V) (0.1V increments)	Sets the threshold value at which the remaining battery capacity indicator starts flashing when using a non-Sony battery.
End:Other Battery	11.0V to 14V (0.1V increments)	Sets the threshold value for displaying the "Battery End" warning when using a non-Sony battery.
Detected Battery	Sony Info Battery/Sony Battery/Other Battery/DC IN (12V)/DC IN (24V)	Displays the result of automatic battery pack type detection.

Technical > DC Voltage Alarm
　Sets alarms relating to external DC supply voltage.

Menu item	Settings	Description
DC Low Voltage1	11.5V to 17V (0.1V increments)	Sets the threshold value for displaying a low voltage warning when using an external power source connected to the DC IN connector.
DC Low Voltage2	11.0V to 14V (0.1V increments)	Sets the threshold value for displaying an undervoltage warning when using an external power source connected to the DC IN connector.
DC(24V) Low Voltage1	22.5V to 34.0V (0.1V increments)	Sets the threshold value for displaying a low voltage warning when using a 24 V external power source connected to the DC IN connector.
DC(24V) Low Voltage2	22.0V to 28.0V (0.1V increments)	Sets the threshold value for displaying an undervoltage warning when using a 24 V external power source connected to the DC IN connector.

Technical > Control Display
　Makes settings related to the displays.

Menu item	Settings	Description
Brightness level	High/Mid/Low/Minimum	Adjusts the brightness of the sub display and mini display.

Technical > Genlock
Makes settings related to genlock.

Menu item	Settings	Description
Input Source	HD SDI/Analog	Selects the genlock input signal. HD SDI: Digital Analog: Analog
Reference Lock Type	Internal/External(HD)/External(SD)	Displays the genlock status. Displays the signal type when genlocked. Internal: Not genlocked. External(HD): Genlocked by the HD signal. External(SD): Genlocked by the SD signal.

Technical > Lens Configuration
Makes settings related to E mount lenses.

Menu item	Settings	Description
E-Mount Shading Comp.	Auto/Off	Sets whether to compensate for a drop in peripheral lighting when a compatible lens is attached.
E-Mt Chro. Aber. Comp.	Auto/Off	Sets whether to compensate for chromatic aberration in peripheral lighting when a compatible lens is attached.

Maintenance Menu

Default values are shown underlined and in **bold** text.

Maintenance > Clock Set
Makes settings related to the built-in clock.

Menu item	Settings	Description
Time Zone	UTC + 14:00 to UTC Greenwich to UTC − 12:00 (30-minute increments)	Selects the difference in time from UTC (Greenwich Mean Time) in increments of 30 minutes.
Date Mode	YYMMDD/MMDDYY/DDMMYY	Selects the display format for dates. YYMMDD: Year, month, day MMDDYY: Month, day, year DDMMYY: Day, month, year
Date		Sets the current date (apply by pressing Set).
Time		Sets the current time (apply by pressing Set).

Maintenance > Language
Selects the display language for menus and messages.

Menu item	Settings	Description
Select	English/中文(简)	Selects the display language for the full menu and messages.

Maintenance > Hours Meter
Displays the accumulated usage time.

Menu item	Settings	Description
Camera(System)		Displays the accumulated time of use of the unit (cannot be reset).
R7 Recorder (System) (Only when an AXS-R7 is attached)		Displays the accumulated time of use of the AXS-R7 connected to the unit (cannot be reset).
Camera(Resettable)		Displays the accumulated time of use of the unit (can be reset).
R7 Recorder (Resettable) (Only when an AXS-R7 is attached)		Displays the accumulated time of use of the AXS-R7 connected to the unit (can be reset).
Reset-Cam (Resettable)	Execute/Cancel	Resets the Camera(Resettable) display to 0 (execute by selecting Execute).
Reset-R7 (Resettable) (Only when an AXS-R7 is attached)	Execute/Cancel	Resets the R7 Recorder(Resettable) display for the AXS-R7 connected to the unit to 0 (execute by selecting Execute).

Maintenance > **Reset to Default**
Returns the unit to factory default state.

Menu item	Settings	Description
Reset	Execute/Cancel	Initializes all unit settings (execute by selecting Execute).

Maintenance > **License Options**
Installs software options.

Menu item	Settings	Description
Install: <target_license>	Execute/Cancel	Installs software options (execute by selecting Execute).
Anamorphic	Permanent License Installed/XX days Remaining (YY keys)/ Expired/Not Installed	Displays whether the Anamorphic option is enabled. Permanent License Installed: Permanent license is installed XX days Remaining (YY keys): Expiration of timed license Expired: Timed license has expired Not Installed: Not installed
Full-Frame	Permanent License Installed/XX days Remaining (YY keys)/ Expired/Not Installed	Displays whether the Full Frame option is enabled. Permanent License Installed: Permanent license is installed XX days Remaining (YY keys): Expiration of timed license Expired: Timed license has expired Not Installed: Not installed
Unique Device ID		Displays the ID used for issuing the software option license key.

Maintenance > **Firmware**
Displays the version of the unit and AXS-R7, and updates the unit.

Menu item	Settings	Description
Camera		Displays the firmware version of the unit (Vx.xx).
AXS (Only when an AXS-R7 is attached)		Displays the firmware version of the AXS-R7 connected to the unit (Vx.xx).
FW Update-camera	Execute/Cancel	Updates the unit (execute by selecting Execute).
FW Update-AXS-R7	Execute/Cancel	Updates the firmware version of the AXS-R7 connected to the unit (execute by selecting Execute).

Clip Operations on the Sub Display

Clip operations are performed using the clip list screen and the playback screen. You can play a clip by selecting the clip to play from the clip list screen displayed on the sub display.
When AXS Rec Format is not set to Rec Off in the Project category in the menu, AXS media becomes playable. Similarly, when SxS Rec Format is not set to Rec Off, SxS media becomes playable.

Clip List Screen

Press the CLIPS button (page 9) on the Assistant side to display the clip list screen for playable media on the sub display.
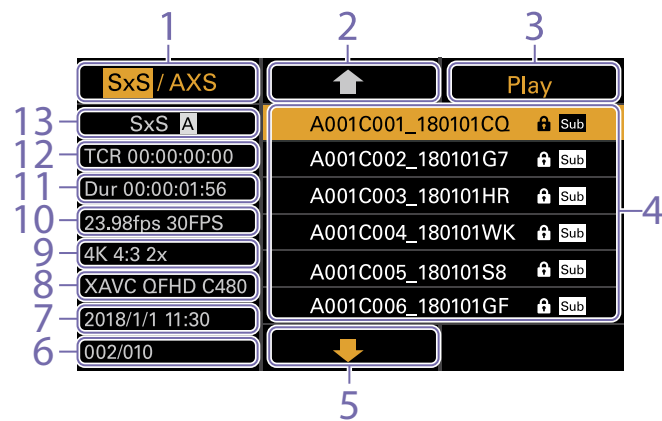
1. **Media select button**
   Displays "SxS/AXS" if both SxS and AXS media are playable. Press ITEM key 1 to switch the playback media.

2. **Cursor up button**
   Press ITEM key 2 to select the clip to play from the clip list.

3. **Playback start button**
   Press ITEM key 3 to display the playback screen (page 14) and start playback.

4. **Clip list**
   Displays a list of clips on the active playback media. It also displays the clips status using icons.

Icon	Meaning
Sub	Clip with a created sub clip
🔒	Locked (write protection) clip

5. **Cursor down button**
   Press ITEM key 5 to select the clip to play from the clip list.

6. **Clip position in playback media**
   Displays the number of the clip indicated by the cursor and total number of clips.

7. **Creation date and time**
   Displays the creation date and time of the clip indicated by the cursor.

8. **Format (codec)**
   Displays the recording format (codec) of the clip indicated by the cursor.

9. **Picture size indicator**
   Displays the effective picture size when the clip indicated by the cursor was recorded.

   [Note]
   Not displayed when the playback media is an SxS memory card.

10. **Project frame rate/special recording mode indicator**
    Displays the project frame rate and special recording mode of the clip indicated by the cursor.

11. **Duration (Dur)**
    Displays the duration of the clip indicated by the cursor.

12. **Timecode (TCR)**
    Displays the timecode of the first frame of the clip indicated by the cursor.

13. **Active playback media**
    Displays the active playback media of the displayed list.

Playback Screen

The playback screen is displayed when you select a clip to play on the clip list screen and press the MENU dial or Play button (ITEM key 3).

Function display area

1. F Rev button
Play back at high speed in the reverse direction.

2. Play/Pause button
Play a clip or pause playback.

3. F Fwd button
Play back at high speed in the forward direction.

4. Prev button
Skip to the start of the previous clip.

5. Stop/Clips button
Stop playback and return to the clip list screen.

6. Next button
Skip to the start of the next clip.

Status display area
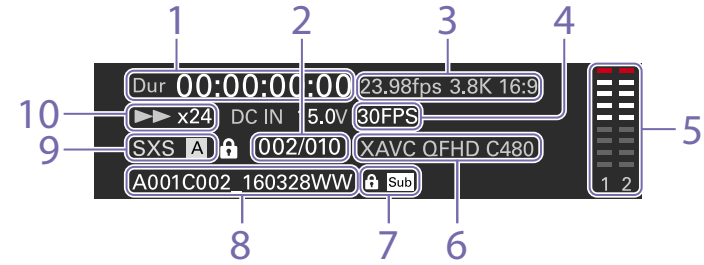
1. Time data display
Displays the timecode of the playback position.

2. Clip number
Displays the Current playback clip number/ Total number of playable clips.

3. Frame rate/imager mode indicator
Displays the project frame rate and picture size.

[Note]
The picture size is not displayed when the playback media is an SxS memory card.

4. Special recording mode indicator
Displays the special recording mode information of the playback clip.

5. Audio level meters
Displays the playback audio level.

6. Playback clip format (codec) indicator
Displays the format (codec) of the playback clip.

7. Icon display
Displays the clip status using icons.

Icon	Meaning
Sub	Clip with a created sub clip
🔒	Locked (write protection) clip

8. Clip name indicator
Displays the name of the clip.

9. Media indicator
Displays the media being played.

10. Playback status indicator
Displays the playback status.

Playback

You can play recorded clips while the unit is in standby mode.

[Note]
The playback controls appear on ITEM keys 1 to 6 (page 8). Press an ITEM key to select the corresponding item.

1 Insert the SxS memory card to play.

2 Press the CLIPS button (page 9) on the Assistant side.
The clip list on the active playback media appears on the sub display.

3 Use the ⬆ button (ITEM key 2), ⬇ button (ITEM key 5), or MENU dial to select a clip to play.

4 Press the MENU dial or the Play button (ITEM key 3).
The playback image appears on the viewfinder/monitor screen.

Playback operations

Playback operation is performed using the buttons on the sub display (page 68).
Play/Pause button: Pause playback. To resume playback, press this button again.
F Fwd button/F Rev button: Fast forward/reverse. To return to normal playback, press the Play/Pause button.
Stop/Clips button: Stop playback and return to the clip list screen.

Monitoring audio

In normal playback mode, you can monitor the recorded audio through the built-in speaker (page 7) or connected headphones.
When headphones are connected to the headphones connector (page 7), the built-in speaker is turned off.
You can select the channel to monitor and adjust the volume using Audio category > Monitor CH and Monitor Level (page 42) in the menu.

Cueing up

To play from the start of a clip, press the Prev button on the sub display (page 68).
You can skip clips and cue-up another clip by pressing the Prev button or Next button repeatedly.

Switching the SxS memory cards

When two SxS memory cards are loaded, press the SLOT SELECT button (page 8) to switch memory cards.

[Note]
You cannot switch SxS memory cards during playback. Continuous playback of cards in slots A and B is not possible.

Switching to an AXS memory card

You can quickly play video recorded on an AXS memory card in the AXS-R7.

To switch to an AXS memory card, press ITEM key 1 (page 67) on the sub display.

Operations on the Home Screen of the Mini Display

You can check the status of the unit and set basic settings for the unit on the Home screen of the mini display.

```
1─ FPS   Fixed   24
2─ ⊿        180.0
3─ ND      Clear
4─ EI        500
5─ WB  5600⁺⁰⁰
```
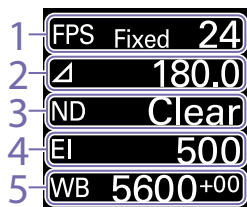
1. **FPS**
   Sets the shooting frame rate.

2. **Shutter**
   Displays and sets the shutter speed/shutter angle of the electronic shutter.

3. **ND Filter**
   Displays and sets the density of the ND filter.

4. **Exposure Index**
   Displays and sets the exposure index (EI).

5. **WB (White Balance)**
   Displays and sets the white balance.

Controls

HOME button (page 7)
Press to return to the Home screen. Unconfirmed changes are canceled.

ITEM key 1 (⬆) (page 7)
Press to select items on the Home screen.

ITEM key 2 (⬤) (page 7)
Press to apply the selected item.

ITEM key 3 (⬇) (page 7)
Press to select items on the Home screen.

Basic Operation

1 Press ITEM key 1, 2, or 3.
   The cursor appears.

2 Select the item to set using the ⬆ button (ITEM key 1) or ⬇ button (ITEM key 3).

```
FPS   Fixed   24
⊿        180.0
ND      Clear
EI        500
WB  5600⁺⁰⁰
```

3 Press the ⬤ button (ITEM key 2).
   The setting value selection screen appears for the selected item.

```
            ▲
         320
         400
EI      •500
         640
            ▼
```
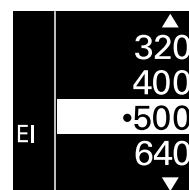
[Note]

The ⬤ mark indicates the current setting.

4 Move the cursor to the item or setting value using the ⬆ button (ITEM key 1) or ⬇ button (ITEM key 3).

5 Press the ⬤ button (ITEM key 2) to apply the setting.

6 Press the HOME button to hide the cursor.

Home Screen Items on the Mini Display

The names of items and corresponding setting values are given below.
Default values are shown underlined and in **bold** text.

Item	Description
FPS	Sets the shooting frame rate. Variable/Fixed: Switch between variable speed and constant speed shooting on the Home screen (page 35) of the sub display. When "Fixed" is selected, the setting is determined by the Project category > Project Frame Rate (page 41) setting in the menu.

Project Frame Rate	Display
23.98	Fixed 24
24	Fixed 24
25	Fixed 25
29.97	Fixed 30
47.95	Fixed 48
50	Fixed 50
59.94	Fixed 60

When "Variable" is selected, the setting changes as follows depending on the Project category > Imager Mode (page 54) setting in the menu.

Imager Mode	Setting
3.8K 16:9 4K 17:9	1 to 60 FPS
3.8K 16:9 Surround View 4K 17:9 Surround View 4K 4:3	1 to 48 FPS
4K 4:3 Surround View 4K 6:5 5.7K 16:9 6K 2.39:1 6K 17:9 6K 1.85:1	1 to 30 FPS
6K 3:2	1 to 25 FPS

| Item	Description
Exposure Index	Sets the EI value. The setting changes as follows depending on the Project > Basic Setting > Base ISO (page 54) setting in the full menu. ISO 500: 125EI/160EI/200EI/250EI/320EI/400EI/<u>500EI</u>/640EI/800EI/1000EI/1250EI/1600EI/2000EI ISO 2500: 640EI/800EI/1000EI/1250EI/1600EI/2000EI/<u>2500EI</u>/3200EI/4000EI/5000EI/6400EI/8000EI/10000EI
Shutter	Sets the electronic shutter angle/shutter speed. Select from preset values registered as shutter steps. [Note] Not available when the electronic shutter operation is set to Continuous. Displays the following selection options depending on the Technical > System Configuration > Shutter Mode (page 63) setting in the full menu. Angle (Δ): Shutter angle indicator 360.0/<u>180.0</u>/172.8/144.0/90.0/45.0/22.5/11.2/5.6 [1] Speed (SS): Shutter speed indicator 1/24, 1/25, 1/30, 1/48, 1/50, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000[1]
ND Filter	Sets the density of the ND filter. The following settings are available. <u>Clear</u>/0.3/0.6/0.9/1.2/1.5/1.8/2.1/2.4
WB (White Balance)	Sets the color temperature of the white balance. Select from preset values registered as WB steps. <u>3200K+00</u>/4300K+00/5500K+00 [1]

[1] The selection options can be changed using Step Edit on the Home screen of the sub display.

Clip Operations on the Mini Display

You can play a clip by selecting the clip to play from the clip screen displayed on the mini display. When AXS Rec Format is not set to Rec Off in the Project category in the menu, AXS media becomes playable. Similarly, when SxS Rec Format is not set to Rec Off, SxS media becomes playable. When both AXS and SxS media playback is enabled, you can select the active media on the clip list screen (page 67) of the sub display.

Clip Screen

Press the CLIPS button (page 7) on the Operator side to display the clip screen for playable media on the mini display.
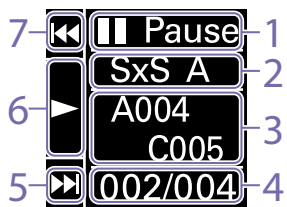
1. Playback status indicator
    Displays the clip playback status.

2. Active playback media
    Displays the active playback media of the selected clip.

3. Clip name
    Displays the clip name of the selected clip.

4. Clip position in playback media
    Displays the clip number/total number of the selected clip.

5. F Fwd/Next button
    Jumps to the next clip when ITEM key 3 (⬇) is pressed while playback is paused.
    Fast forwards the clip when ITEM key 3 (⬇) is pressed during playback.

6. Play/Pause button
    Plays/pauses clip playback when ITEM key 2 (⬤) is pressed.

7. F Rev/Prev button
    Jumps to the previous clip when ITEM key 1 (⬆) is pressed while playback is paused.
    Fast reverses the clip when ITEM key 1 (⬆) is pressed during playback.

Playing

You can play recorded clips while the unit is in standby mode.

1 Insert the SxS memory card to play.

2 Press the CLIPS button (page 7) on the Operator side.
   The active playback clip appears on the mini display.

3 Use the Prev button (ITEM key 1) or Next button (ITEM key 3) to select a clip to play.

4 Press the Play/Pause button (ITEM key 2).
   The playback image appears on the viewfinder/monitor screen.

Playback operations

Playback operation is performed using the buttons on the mini display (page 72).
Play/Pause button: Pause playback. To resume playback, press this button again.
F Fwd button/F Rev button: Fast forward/reverse. To return to normal playback, press the Play/Pause button.

Monitoring audio

In normal playback mode, you can monitor the recorded audio through the built-in speaker (page 7) or connected headphones.
When headphones are connected to the headphones connector (page 7), the built-in speaker is turned off.
You can select the channel to monitor and adjust the volume using Audio category > Monitor CH and Monitor Level (page 42) in the menu.

Switching the SxS memory cards

When two SxS memory cards are loaded, press the SLOT SELECT button (page 8) to switch memory cards.

[Note]
You cannot switch SxS memory cards during playback. Continuous playback of cards in slots A and B is not possible.

Network Setup and Operations

Connecting the unit to a network allows you to control various settings of the unit from a computer, smartphone, tablet, or other device and to display information about the unit.

Overview of Network Function

When the unit and a device are connected via wired LAN or wireless LAN, the unit can be accessed from a browser on the device, displaying the web remote control and enabling the following operations.

- Control recording on the unit (page 76)
- Control playback on the unit (page 76)
- Configure shooting settings on the unit (page 76)
- Control the lens attached to the unit (page 76)
- Configure and operate assignable buttons on the unit (page 76)

Using the web remote control allows you to start/stop recording or configure settings remotely, and is useful in applications where the unit is fixed in a remote location or mounted on a crane, for example.

Compatible Devices

You can use a computer, smartphone, or tablet to configure and operate the unit. The supported devices, OS, and browsers are shown in the following table.

Device	OS	Browser
Computer	Microsoft Windows 8.1/ Microsoft Windows 10	Chrome
	macOS 10.13/10.14	Safari

Device	OS	Browser
Smartphone	Android 8.x/9.0	Chrome
	iOS 11.x/12	Safari
Tablet	Android 6.x/7.x	Chrome
	iOS 11.x/12	Safari

[Note]
The controls may not be displayed normally, depending on the version of the browser you are using. Operation in the following versions of the browsers has been verified.
Safari: 11, 12
Chrome: V69

Connecting the Unit and Device via Wired LAN

You can connect the unit to a device via a wired LAN connection or via a router using the network connector of the unit.

1 Connect the network connector (page 7) of the unit and computer using a LAN cable. Or connect the network connector of the unit and router using a LAN cable.

2 Set Technical > Network > Setting (page 63) in the full menu to LAN.

3 Configure the unit.
To obtain the IP address of the unit automatically:
Set Technical > Network > LAN > DHCP (page 63) in the full menu to On, then select Set to apply the setting.
To enter the IP address of the unit manually:
Set Technical > Network > LAN > DHCP in the full menu to Off, enter the specified address using LAN > IP Address, and select Set to apply the setting.

[Note]
Select Set on the Technical > Network > LAN setup screen in the full menu. If Set is not selected, the configured settings are not applied.

When the wired LAN connection is enabled, the LAN icon of the network connection status indicator (page 13) is displayed on the viewfinder/monitor screen.
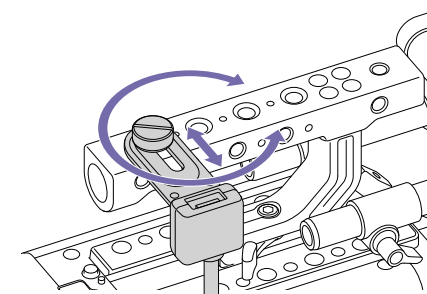
Connecting the Unit and Device via Wireless LAN

The unit can connect to devices using wireless LAN connection by attaching the CBK-WA02 Wireless LAN Adaptor (option) to the unit.

Attaching the CBK-WA02

[Note]
Always turn the unit off before connecting the CBK-WA02.

1 Attach the USB extension adaptor to the point shown in the following diagram, and turn the retaining screw clockwise to secure it in position.

Retaining screw

USB extension adaptor
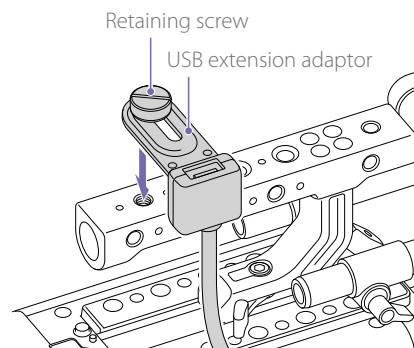
You can adjust the position of the USB extension adaptor over the range shown in the following diagram.

2 Attach the protective cap (supplied) to the USB connector of the USB extension adaptor.
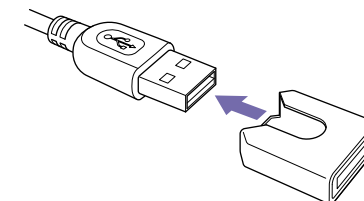
3 Open the cover of the external device connector block, and insert the USB connector of the USB extension adaptor into the external device connector.
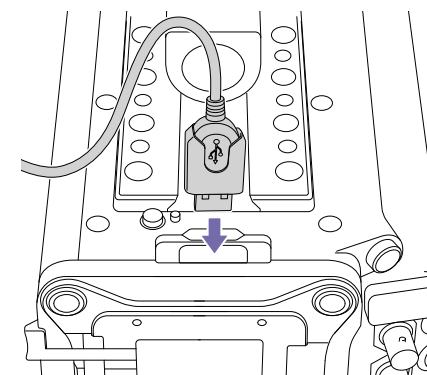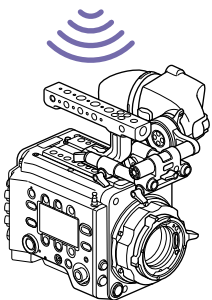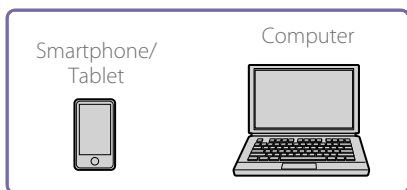
4 Insert the CBK-WA02 into the USB connector of the USB extension adaptor.
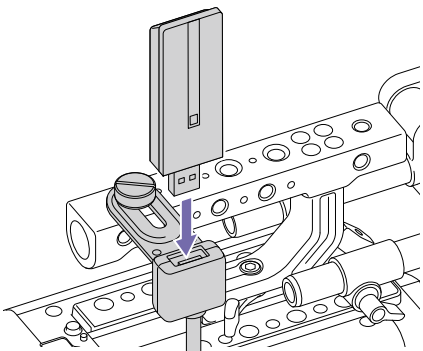
Connecting in access point mode

The unit can connect to devices that are set up as an access point.

Connecting using WPS-equipped devices
Devices that support WPS can be connected using WPS.

1 Set Technical > Network > Setting (page 63) in the full menu to Wireless.

2 Set Technical > Network > Wireless > Network Mode (page 63) in the full menu to Access Point.

3 Select Technical > Network > Wireless > WPS (page 63) in the full menu.

4 Select Execute by turning the MENU dial, then press the MENU dial.

5 Open the device Network Settings or Wi-Fi Settings, and turn Wi-Fi on.

6 Press the WPS push button in the device Network Settings or Wi-Fi Settings preferences.

[Note]
The steps will vary depending on the device used.

Connecting using SSID and password on the device
Connect by entering the SSID and password on the device.

1 Set Technical > Network > Setting (page 63) in the full menu to Wireless.

2 Set Technical > Network > Wireless > Network Mode (page 63) in the full menu to Access Point.

3 Open the device Network Settings or Wi-Fi Settings, and turn Wi-Fi on.

4 Select the unit's SSID from the Wi-Fi network SSID list, then enter a password to connect.
For the unit's SSID and password, see Technical > Network > Wireless > SSID and Password (page 63) in the full menu.
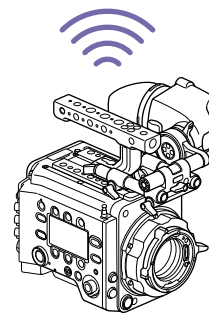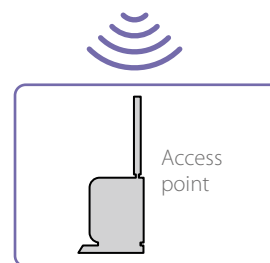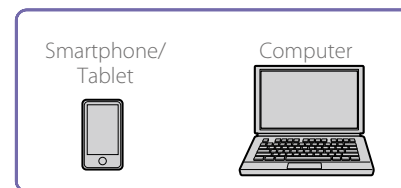
[Note]
The steps will vary depending on the device used.

Connecting in station mode

The unit can connect to existing wireless LAN access points as a client.
The device connects via the access point.

Connecting to an access point using WPS
If an access point supports the WPS function, you can connect using a basic setting.

1 Turn the access point on.

2 Turn the unit on.

3 Set Technical > Network > Setting (page 63) in the full menu to Wireless.

4 Set Technical > Network > Wireless > Network Mode (page 63) in the full menu to Station.

5 Select Technical > Network > Wireless > WPS (page 63) in the full menu.

6 Select Execute by turning the MENU dial, then press the MENU dial.

7 Press the access point WPS button.
For details about WPS button operation, refer to the instruction manual for the access point.

[Note]
If the connection fails, perform the procedure again from step 1.

Connecting by entering a SSID and password
Connect by entering the SSID and password on the unit.

1 Set Technical > Network > Setting (page 63) in the full menu to Wireless.

2 Set Technical > Network > Wireless > Network Mode (page 63) in the full menu to Station.

3 Set the following items in Technical > Network > Wireless (page 63) in the full menu.
- SSID
- Password
- DHCP
- IP Address
- Subnet Mask

4 Select Set to confirm.

[Note]
Always use Set to confirm the settings. If the settings are not confirmed using Set, the configured settings are not applied.

Connecting using access point auto detection

The unit can connect by detecting connection access points automatically, without having to enter the SSID manually.

1 Set Technical > Network > Setting (page 63) in the full menu to Wireless.

2 Set Technical > Network > Wireless > Network Mode (page 63) in the full menu to Station.

3 Select Technical > Network > Wireless > Scan Networks (page 63) in the full menu.

4 Select Execute by turning the MENU dial, then press the MENU dial.
The unit starts auto detection of connection access points. When auto detection finishes, networks available for connection are displayed in a list.

5 Select the network to be connected by turning the MENU dial, then press the MENU dial.

6 Select Set to confirm.
A password input screen appears.

7 Enter the password, then select Done.
The Wireless preferences screen appears.

8 Set the following items in Technical > Network > Wireless in the full menu, then select Set to confirm.
 • DHCP
 • IP Address
 • Subnet Mask

[Note]
Always use Set to confirm the settings. If the settings are not confirmed using Set, the configured settings are not applied.

Displaying the Web Remote Control

The web remote control is displayed when the unit is accessed from the browser of a device. The web remote control screen is automatically resized to match the screen size of the connected device.

1 Connect the unit and device as described in "Connecting the Unit and Device via Wired LAN" or "Connecting the Unit and Device via Wireless LAN".

2 Launch a browser on the device and enter "http://IP address of unit/rm.html" in the URL bar.
You can check the IP address of the unit using Info category > System > IP Address (page 43) in the menu.
For example, if the IP address is 192.168.1.1, enter "http://192.168.1.1/rm.html" in the URL bar.

3 Enter the user name and password (Technical > Authentication (page 63) in the full menu) on the browser screen.
When connection is successful, the web remote control screen appears on the device.
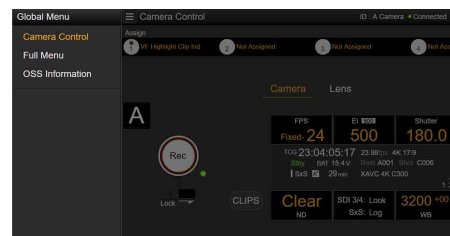
[Note]
The page may not be displayed correctly on a smartphone or other device if the viewing mode is set to mobile pages. Change the viewing mode to desktop pages.

Web Remote Control Screen

Global Menu

Select ▤ at the top left of the web remote control screen to display the Global Menu. Select the item you want to configure.


Camera Control screen

The Camera Control screen contains the Camera screen and Lens screen. Select the Camera tab to display the Camera screen, and select the Lens tab to display the Lens screen.
Various display items and operation buttons are displayed on the Camera Control screen (common to Camera screen, Lens screen, and playback screen).
 • Network connection status (Connected/Disconnected)
 • Camera ID*
 • Rec button
 • Assignable buttons (1 to 4)
 * The Camera ID text color is the same color set using Frame Line A/B Setup > Color.
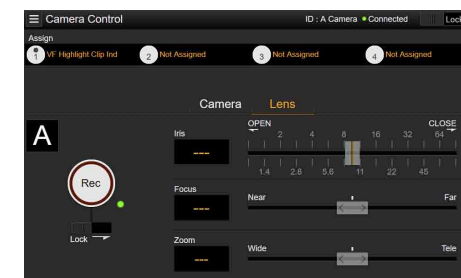
Camera screen
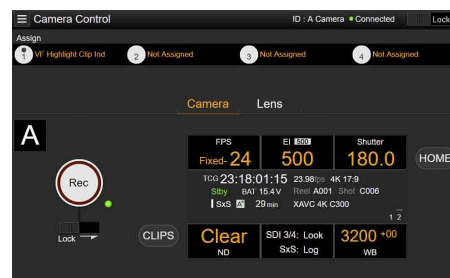
You can configure the same items that are displayed on the Home screen of the sub display on the Camera screen.
 • Shooting settings (page 29)
  FPS, EI, Shutter, ND, LUT, WB

 • Camera status display (page 29)
  Operating status, time data, audio level meter, clip name, recording format, media status/free space, battery voltage/remaining battery capacity
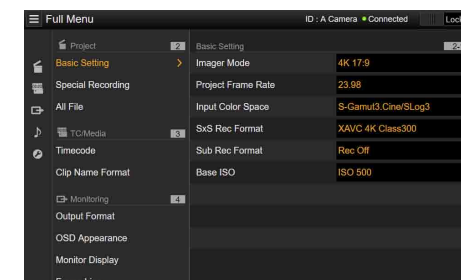
Lens screen

Lens controls for zoom, focus, and iris are displayed on the Lens screen.

Full Menu screen

Select Full Menu in the Global Menu to display the full menu screen in order to configure items (page 51).
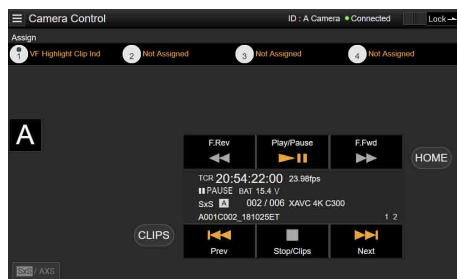
[Note]
Some items may not be configurable from the web remote control.

OSS (Open Source Software) Information screen

Select OSS Information in the Global Menu to display the open source software information.

Playback screen

You can play clips on the playback screen. Information about the playback clip is also displayed in the status display area on the screen.

- Function display (page 68)
  F Rev, Play/Pause, F Fwd, Prev, Stop/Clips, Next
- Playback status display (page 68)
  Time data, clip number, frame rate/playback clip picture size (AXS only), special recording mode, audio level meter, playback clip format (codec), icon (protection, sub clip), clip name, playback media, and playback status.

HOME button

Press the HOME button to return to the Camera screen.
When the camera is in playback mode, pressing the HOME button returns to the camera shooting status even when the playback screen is displayed on the web remote control screen.

CLIPS button

Press the CLIPS button to return to the playback screen. (The unit switches to the clip list screen (page 67).)

Recording

Press the Rec button on the Camera Control screen to start recording and to display the REC lamp in red. Click again to stop recording.
The Rec button is enabled when the REC ACTIVE lamp below and to the right of the Rec button is green.

To lock the Rec button

Slide the Lock slider below the Rec button to the right to disable the Rec button operation.

Playing

Press the CLIPS button on the Camera screen to return to the playback screen in playback state. (The sub display on the unit displays the clip list screen (page 67).)
Select the clip you want to play on the playback screen, and use the playback controls to play the clip.

To switch between playback media

The media select button is displayed when the unit is in playback state. If both SxS and AXS media are playable, the media select button is enabled. Press the button to switch the playback media.

Configuring Shooting Settings

You can configure and operate the same items that are displayed on the Home screen of the sub display of the unit on the Camera screen.

[Note]
Step Edit operation for Shutter is not supported.

The operation is the same as on the Home screen of the sub display.

"Operations on the Home Screen of the Sub Display" (page 31)

Controlling the Lens

You can check the status of E mount lens settings (zoom, focus, iris) on the Lens screen, and also control the zoom, focus, and iris using sliders if the attached lens is controllable.
PL mount Cooke lens communication control (zoom, focus, iris) is supported on the Lens screen. Also, 12-pin lens communication control (iris only) is supported on the Lens screen.

Configuring/Operating Assignable Buttons

Assignable buttons 1 to 4 are displayed on the Camera Control screen.
Press assignable buttons 1 to 4 to toggle the assigned functions between on/off (enable/disable) or to activate the assigned functions in the same way as assignable buttons 1 to 4 on the unit. Select the function name of an assignable button to display selection options in a pull-down. Select an option to change the function assigned to the assignable button.

"Functions that can be Assigned to Assignable Buttons 1 to 4" (page 38)

[Note]
Functions assigned to assignable switches that are enabled only while a button is pressed or are enabled by a long press cannot be operated from the assignable buttons of the web remote control. These comprise the following functions.
– Press & Hold for SDI Log
– Press & Hold for Monitor Log
– Press & Hold for VF Log

– Iris Open (1/16 stop)
– Iris Close (1/16 stop)

Locking the Web Remote Control Screen

You can disable web remote control screen operation by sliding the Lock slider to the right on the top right of the web remote control screen.

Basic Operations

Basic recording can be performed with the following procedures.

1 Make sure that the necessary devices are attached to the unit and power is supplied to them.

2 Set the power switch (page 7) to the ON position.
The recording screen is displayed on the viewfinder screen.

3 Load the memory card(s).
If you load two AXS memory card or SxS memory cards, recording is continued by automatically switching to the second card when the first card becomes full.

[Note]
The cards do not switch automatically during simultaneous recording.

4 Press the REC button (pages 7, 9).
The REC lamp lights and recording begins.

[Note]
If the unit cannot start recording immediately after the pressing the REC button, the REC lamp flashes. The REC lamp lights when recording starts.

5 To stop recording, press the REC button again.
Recording stops and the unit enters STBY (recording standby) mode.
When you stop recording, the video, audio, and subsidiary data from the start to the end of the recording are recorded as a single clip.

Clip names

Clip names are recorded using the "Cam ID + Reel#" format. The clip name is created according to the following rules.

- When there is already a clip that is stored using the "Cam ID + Reel#" name format on the inserted SxS memory card or AXS memory card, the new file inherits from the last file.
Example: If "B002C003_XXXXXXXX" exists on the AXS memory card, the next created clip will be named "B002C004_XXXXXXXX."

- If the inserted AXS memory card has no files, "1" is added to the Reel Number of the clip that was recorded last.
Example: If you record on empty card 2 after recording up to "D001CXXX_XXXXXXXX" on card 1, the next created clip will be named "D002C001_XXXXXXXX." The clip name is displayed underlined until recording starts.

- If you set Camera ID and Reel Number using TC/Media category > Clip Naming in the menu, that information is applied.
Example: If you change Camera ID to "F" and Reel Number to "001" in the menu for the AXS memory card that has recorded up to "E003CXXX_XXXXXXXX," the next clip will be named "F001CXXX_XXXXXXXX." When you change Camera ID only, Reel Number is changed to "001."

Maximum duration of a clip

The maximum single clip length that you can record to an SxS memory card is 6 hours. The maximum recording time is 24 hours.
Recording will span clips if the recording time exceeds the maximum clip duration.
Recording stops when the recording time reaches 24 hours.

Useful Functions

Simultaneous Recording

You can simultaneously record two sizes of pictures on an SxS memory card in one slot. You can also simultaneously record an HD signal on an SxS memory card in the unit while recording video and audio in RAW format on the AXS-R7.
You can perform simultaneous recording using Project category > AXS Rec Format and SxS Rec Format or SxS Rec Format and Sub Rec Format in the menu as described in "Recording Format Settings" (page 44).

In 1-slot simultaneous recording, the XAVC 4K Class480/XAVC 4K Class300/XAVC QFHD Class480/XAVC QFHD Class300 clip is recorded in the XDROOT/Clip directory on the SxS memory card, but the MPEG2 1920×1080 clip is recorded in the XDROOT/Sub directory on the SxS memory card. The suffix "S02" is appended to the end of the clip name.

Picture Cache Recording

The unit always maintains a cache of video and audio data for a set interval (maximum of 30 seconds) in memory when shooting, allowing you to record several seconds of footage before the start of recording.
When you start recording with Project > Special Recording > Cache Rec Select (page 54) set to On in the full menu, video of duration set by Project > Special Recording > Cache Rec Duration (page 55) is recorded retroactively.
You can also turn picture cache recording on/off using an assignable button assigned with the Picture Cache Rec function.

[Notes]
- Restrictions to the Cache Rec Duration setting may apply, depending on the system frequency, recording format, and recording media. For details, see page 55.
- Changing system settings, such as the recording format, clears all images stored in memory. Consequently, images shot just before changing settings cannot be recorded, if recording is started immediately after changing settings. Picture cache mode is automatically released.
- Picture cache mode recording is not available during 1-slot simultaneous recording or AXS/SxS simultaneous recording.
- The picture cache settings cannot be changed during recording.
- When recording in MPEG 422 at low shooting frame rates, it may take some time to stop recording or to switch between memory cards.

Recording Review (Rec Review)

You can review the last recorded clip on the screen by assigning the Rec Review function to one of assignable buttons 1 to 4 (page 37).
When you stop recording and press the button assigned with Rec Review, the clip is played at normal speed starting from the first frame.
The clip is played to the end, then Rec Review ends and the unit returns to STBY (recording standby) mode.
If the HOME button is pressed on the Operator side or Assistant side during playback, playback stops and the unit switches to shooting mode.

High-Definition Focus Magnifier Function

By pressing the FOCUS MAG button of the viewfinder (DVF-EL200, DVF-L700) attached to the unit, you can expand the center part of the viewfinder, making it is easier to adjust the focus. The magnified display does not affect the recorded image or output signal.
Normal focus magnification reduces the resolution because it simply magnifies a part of the displayed image. However, the two-times (×2) focusing by the unit provides focus magnification while maintaining the display resolution by cutting out the portion to magnify from the 4K signal instead of the recorded image or other output signal. Four-times (×4) focus magnification selection is also supported using the 4K image cutout function.
The FOCUS MAG button magnification sequence can be changed using Monitoring > VF Display > VF Magnifier Ratio (page 61) in the full menu. When VF Magnifier Ratio is set to ×2.0/×4.0, the magnification sequence each time you press assignable buttons 1 to 4 assigned with VF Focus Magnifier is ×2.0 → ×4.0 → ×1.0 → ×2.0.

Highlight Clip Indicator

You can display clipped highlight areas in red in the Monitor output image and viewfinder output image.
Press the assignable buttons (pages 37, 38) assigned with Monitor Highlight Clip Ind and VF Highlight Clip Ind to switch the highlight clip indicators on/off.

High Key / Low Key

You can check for blown-out highlights and blocked-out shadows in the Monitor output image and viewfinder output image.
Turn High Key on to differentiate areas of high luminance, making them easier to see, to check for blown-out highlights.
Turn Low Key on to differentiate areas of low luminance, making them easier to see, to check for blocked-out shadows.
Press assignable buttons 1 to 4 (page 38) assigned with Monitor High/Low Key and VF High/Low Key to switch the high key and low key settings.

False Color Display

You can display false color in the viewfinder by pressing the B/False Color button (DVF-EL200) or SPARE button (DVF-L700) on the viewfinder attached to the unit.
You can also display false color on the monitor output.

Display color	Signal level	
	S-Log3 (default)	S-Log2 (PMW-F55 reference)
Red	93.4% to 96.1%	105.5% to 109.5%
Yellow	91.3% to 93.4%	102.5% to 105.5%
Orange	87.7% to 90.6%	97.4% to 101.5%
Pink	54.3% to 58.0%	50.2% to 55.2%
Light pink	47.8% to 50.8% (18% gray + 1 stop)	41.5% to 45.4% (18% gray + 1 stop)
Cyan	43.8% to 46.5%	36.3% to 39.6%
Green	38.9% to 42.2% (18% gray)	30.4% to 34.4% (18% gray)
Light blue	24.6% to 34.4%	15.5% to 25.2%
Blue	3.5% to 5.6%	3.0% to 4.0%
Purple	−7.3% to 3.5%	−7.3% to 3.0%

- You can set whether to use the preset on/off setting and threshold of each false color in the viewfinder or to set colors manually using Monitoring > False Color (page 60).
- You can turn the false color function display in the viewfinder/monitor output on/off by pressing an assignable button assigned with VF False Color.
- You can turn the false color function display on a monitor on/off by pressing an assignable button assigned with Monitor False Color.

[Note]
On the DVF-L700, display is supported only when Gamma is set to S-Log2 for the video signal output in the viewfinder.

Viewfinder Double Speed Scan Function

If the project frame rate is 23.98P, 24P, 25P, or 29.97P, the image may become blurred and hard to see due to low frame frequency when you shoot while swaying the unit to the right and the left.
In this case, you can decrease image blur and make it easier to see by activating the viewfinder double speed scan function.
To activate the function, set Monitoring > VF Function > Double Speed Scan (page 61) in the full menu to On.

[Notes]
- When this function is activated, the shutter angle of the electronic shutter function is limited to 180 degrees or lower.
- This function is set to Off during variable speed shooting.
- This function is enabled for the following combinations of image size and project frame rate.
  3.8K 16:9 (23.98p, 24p, 25p, 29.97p)
  4K 17:9 (23.98p, 24p, 25p, 29.97p)
  3.8K 16:9 Surround (23.98p, 24p)
  4K 17:9 Surround (23.98p, 24p)
  4K 4:3 (23.98p, 24p)

User 3D LUT

You can load a CUBE file (*.cube) for a 17-point or 33-point 3D LUT created using RAW Viewer or DaVinci Resolve (by Blackmagic Design Pty. Ltd.) (page 33).
Set Input Color Space to match the input color space of when the CUBE file was created.
If the file was created using S-Gamut3.Cine/S-Log3, set Project category > Basic Setting > Input Color Space (page 54) in the menu to S-Gamut3.Cine/S-Log3.
Save the User 3D LUT file in the following directory on the SD card.
PRIVATE\SONY\PRO\LUT\

ASC CDL

You can import ASC CDL (The American Society of Cinematographers Color Decision List) files (*.cdl) created by external tools into the unit.
This allows you shoot with ASC CDL parameters applied to the Look.
Save the ASC CDL file in the following directory on the SD card.
PRIVATE\SONY\PRO\CDL\

Connecting External Monitors and Recording Devices

To display the recording/playback image on an external monitor, select the output signal and use an appropriate cable for the monitor to be connected.

The output signal from the unit can be recorded by connecting a recording device, such as a VTR. The same status information and menus can be displayed on the external monitor as those on the viewfinder screen. Set the content to display, according to the output signal for the monitor, using the Monitoring menu (page 58).

SDI OUT Connector (BNC Type)

Set the output format using the Monitoring menu (page 58).
Use a commercially available 75-ohm coaxial cable for connection.

[Note]
Check that the ground connection between the unit and external device is securely grounded before turning the power on. (We recommend turning on the unit and external device after connecting a 75-ohm coaxial cable.)
When connecting an external device to the unit while the unit is turned on, connect to the unit after connecting a 75-ohm coaxial cable to the external device.

To start synchronized recording on an external device

With SDI signal output selected, synchronized recording is possible by feeding a REC trigger signal to an external recording device connected to the SDI OUT connector. Enable synchronized recording by setting Technical > System Configuration > SDI Rec Remote Trigger (page 63) in the menu to HD SDI Remote I/F or Parallel Rec.

[Note]
When a connected external device does not support a REC trigger signal, the device cannot be operated.

MONITOR OUT Connector (BNC Type)

Outputs an HD SDI signal.
Set the output format using the Monitoring menu (page 58).
Use a commercially available 75-ohm coaxial cable for connection.

[Note]
Audio and timecode are not superimposed on this output.
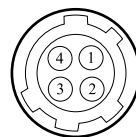
HDMI OUT Connector (Type A Connector)

Set the output format using the Monitoring menu (page 58).
Use a commercially available HDMI cable for connection.
If the output format has the same resolution as the MONITOR OUT connector signal, the same video signal is output.
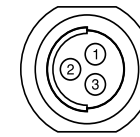
12V OUT Connector (DC OUT 12V, Hirose 4-pin)

Supplies 12 V DC power to an accessory when the power switch is set to ON. You can output a REC Tally signal and input a REC Trigger signal through the 12V OUT connector.

No.	Signal	I/O	Specification
1	UNREG GND	–	GND for UNREG
2	REC TALLY	OUT	Open-collector output (Max. 50 mA) Low: REC
3	REC TRIGGER	IN	Open or +5 V DC: Normal GND: Active (REC)
4	UNREG +12 V OUT	OUT	+11 V to 17 V DC output **11 V to 17 V input** Output voltage: Same as the input voltage Maximum output current: 1.0 A **22 V to 32 V input** Output voltage : 15 V Maximum output current: 0.8 A

## 24V OUT Connector (DC OUT 24 V, Fischer 3-pin)

Supplies 24 V DC power to an accessory when the power switch is set to ON. You can output a REC Tally signal and input a REC Trigger signal through the 24V OUT connector.

No.	Signal	Specification
1	GND	
2	24V-AUX	**11 V to 17 V input** Output voltage : 24 V Maximum output current: 1.0 A **22 V to 32 V input** Output voltage: Same as the input voltage Maximum output current: 2.0 A
3	R/S	

AUX Connector (LEMO 5-pin)

Outputs the timecode signal.
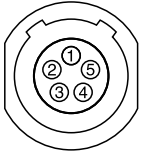
No.	Signal
1	Factory Use
2	NC
3	–
4	TC OUT
5	GND

External Synchronization

When shooting with multiple units, synchronized recording can be performed using a specific reference signal to synchronize the timecode among all the units.

Synchronizing the Phase of the Video Signal (Genlock)

Genlock operation is enabled by supplying one of the following reference signals to the GENLOCK IN connector (page 10) of the unit.
- HDSDI 1.5G digital (Interlaced or PsF)
- HD Y analog
- SD VBS analog

Set the genlock input signal using Technical > Genlock > Input Source (page 65) in the full menu.
Valid input reference signals vary depending on the project frame rate setting.

Project frame rate	Valid reference signal
23.98P	1920×1080 47.95i (23.98PsF)
24P	1920×1080 48i (24PsF)
25P	1920×1080 50i 720×576 50i
29.97P	1920×1080 59.94i 720×486 59.94i
47.952	1920×1080 47.95i (23.98PsF)
50i	1920×1080 50i 720×576 50i
50P	1920×1080 50i 720×576 50i
59.94i	1920×1080 59.94i 720×486 59.94i
59.94P	1920×1080 59.94i 720×486 59.94i

You can check the genlock status using Technical > Genlock > Reference Lock Type (page 65) in the menu.

[Notes]
- If the reference signal is unstable, genlock is not possible.
- The subcarrier is not synchronized.

Synchronizing the Timecode with Another Device

Set the unit that supplies the timecode to a mode in which the timecode output keeps advancing (Free Run mode).

1 Set TC/Media > Timecode > Mode (page 56) in the menu to Preset F-Run (Ext-Lk).

2 Supply an HD or SD reference video signal to the GENLOCK IN connector (page 10) and a reference timecode synchronized with that signal to the TC IN (page 10) connector.

The built-in timecode generator of your unit locks to the reference timecode, and the message "Ext-Lk" is displayed on the screen.
Once about ten seconds have elapsed after the timecode locks, the external lock state is maintained even if the external timecode source is disconnected.

[Notes]
- Check that the reference timecode and the reference video signal are in a phase relationship that complies with the SMPTE timecode standards.
- When you finish the above procedure, the timecode is immediately synchronized with the external timecode, and the time data indication will show the value of the external timecode. However, wait for a few seconds until the timecode generator stabilizes before recording.
- If the frequency of the reference video signal and the frame frequency are not the same, lock cannot be acquired, and the unit will not operate properly. If this occurs, the timecode will not acquire successful lock with the external timecode.
- When the connection is removed, the timecode advance may shift one frame per hour with respect to the reference timecode.

To release external lock

Change the TC/Media > Timecode > Mode (page 56) setting in the menu.

Usage Precautions

Read this section in conjunction with the information provided in the supplied "Before Using This Unit" document.

Use and Storage

Do not subject the unit to severe shock

The internal mechanism may be damaged or the body warped.

Do not cover the unit while operating

Putting a cloth, for example, over the unit can cause excessive internal heat build-up.

After use

Always set the power switch to OFF.

Before storing the unit for a long period

Remove the battery pack.

Do not leave the unit with the lens facing the sun

Direct sunlight can enter through the lens, be focused in the unit, and cause fire.

Shipping

- Remove the memory cards before transporting the unit.
- If sending the unit by truck, ship, air or other transportation service, pack it in the shipping carton of the unit.

Care of the Unit

If the body of the unit is dirty, clean it with a soft, dry cloth. In extreme cases, use a cloth moistened in a little neutral detergent, then wipe dry.
Do not use organic solvents, such as alcohol or thinners, as these may cause discoloration or other damage to the finish of the unit.
Refrain from cleaning with high air pressure equipment, such as an air duster, as these may damage optical components.

In the event of operating problems

If you should experience problems with the unit, contact your Sony dealer.

Periodic Replacement of Fan and Battery

The fan and battery are consumable parts that will need periodic replacement.
When operating at room temperature, a normal replacement cycle will be about 5 years. However, this replacement cycle represents only a general guideline and does not imply that the life expectancy of these parts is guaranteed. For details on parts replacement, contact your dealer.

Life Expectancy of the Electrolytic Capacitor

The life expectancy of the electrolytic capacitor is about 5 years under normal operating temperatures and normal usage (8 hours per day; 25 days per month).

If usage exceeds the above normal usage frequency, the life expectancy may be reduced correspondingly.

Note about the Battery Terminal

The battery terminal of this unit (the connector for battery packs and AC adaptors) is a consumable part.
Power may not be supplied to the unit properly if the pins of the battery terminal are bent or deformed by shock or vibrations, or if they become corroded due to prolonged outdoor use.
Periodic inspections are recommended to keep the unit working properly and to prolong its usable lifetime. Contact a Sony service or sales representative for more information about inspections.

Use and Storage Locations

Store in a level, ventilated place.
Avoid using or storing the unit in the following places.
- In excessive heat or cold (operating temperature range: 0 °C to 40 °C (32 °F to 104 °F)) Remember that in summer in warm climates the temperature inside a car with the windows closed can easily exceed 50 °C (122 °F).
- In damp or dusty locations
- Locations where the unit may be exposed to rain
- Locations subject to violent vibration
- Near strong magnetic fields
- Close to radio or TV transmitters producing strong electromagnetic fields.
- In direct sunlight or close to heaters for extended periods

To prevent electromagnetic interference from portable communications devices

The use of portable telephones and other communications devices near this unit can result in malfunctions and interference with audio and video signals.
It is recommended that the portable communications devices near this unit be powered off.

Note on laser beams

Laser beams may damage the CMOS image sensor. If you shoot a scene that includes a laser beam, be careful not to let the laser beam be directed into the lens of the unit. Specifically, high-power laser beams from medical devices or other devices may cause damage due to reflected light and scattered light.

About the Screens

- Do not leave the screens facing direct sunlight, as this may damage the screens.
- Do not press/swipe the screens forcefully, or leave objects on the screens, as it may cause a malfunction, such as picture irregularity, etc.
- The screens may become warm in use. This is not a malfunction.

LCD Panels

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.

Note that any such problems have no effect on recorded data.

OLED Panels

The OLED 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, or flashing. In addition, over a long period of use, because of the physical characteristics of the organic light-emitting diode, such "stuck" pixels may appear spontaneously. These problems are not a malfunction. Note that any such problems have no effect on recorded data.

Due to the characteristics of the material used in the OLED panel, permanent burn-in or reduction in brightness may occur.

These problems are not a malfunction.

On Condensation

If the unit is suddenly taken from a cold to a warm location, or if ambient temperature suddenly rises, moisture may form on the outer surface of the unit and/or inside of the unit. This is known as condensation. If condensation occurs, turn off the unit and wait until the condensation clears before operating the unit. Operating the unit while condensation is present may damage the unit.

Phenomena Specific to CMOS Image Sensors

The following phenomena that may appear in images are specific to CMOS (Complementary Metal Oxide Semiconductor) image sensors. They do not indicate malfunctions.

White flecks

Although the CMOS image sensors are produced with high-precision technologies, fine white flecks may be generated on the screen in rare cases, caused by cosmic rays, etc. This is related to the principle of image sensors and is not a malfunction.

The white flecks especially tend to be seen in the following cases.

- When operating at high environmental temperatures

Aliasing

When fine patterns, stripes, or lines are shot, they may appear jagged or flicker.

Focal plane

Owing to the characteristics of the pickup elements (CMOS sensors) for reading video signals, subjects that quickly move across the screen may appear slightly skewed.

Flashbanding

The luminance at the top and bottom of the screen may change when shooting a flashlight beam or a light source that quickly flashes.

Flicker

If recording is made under lighting produced by discharge tubes, such as fluorescent, sodium,

or mercury-vapor lamps, the screen may flicker, colors may vary, or horizontal stripes may appear distorted.

Notes on the Display

- Pictures on the viewfinder screen may be distorted by the following operations.
  - Changing the video format
- When you change the line of sight in the viewfinder, you may see primary colors red, green, and blue, but this is not a defect of the unit. These primary colors are not recorded on any recording media.

Fragmentation

If pictures cannot be recorded/reproduced properly, try formatting the recording medium. While repeating picture recording/playback with a certain recording media for an extended period, files in the media may be fragmented, disabling proper recording/storage. In such a case, make a backup of clips in the media then perform formatting of the media using TC/Media > Format Media (page 57) in the menu.

Output Voltages of the Unit

The total output power that can be supplied to peripheral devices from the unit varies depending on the input voltage to the unit and the state of the connected accessories. The maximum output capacity ratings of the following connectors that can supply power may not be achieved depending on the conditions.

LENS connector: 1 A max.
12V OUT connector (4-pin):
  0.8 A max. (Input voltage: 22 V to 32 V)
  1 A max. (Input voltage: 11 V to 17 V)

24V OUT connector (3-pin):
  2 A max. (Input voltage: 22 V to 32 V)
  1 A max. (Input voltage: 11 V to 17 V)

The power delivery rating available for accessories (AXS-R7, DVF-EL200, and CBK-3610XS) and peripheral devices is limited depending on the input voltage to the unit.

Voltage of power supply to the unit: X [V]
Total power rating of peripheral devices: Y [W]
Power consumption of the unit: Approx. 60 W
① Power consumption of the AXS-R7: Approx. 24 W
② Power consumption of the DVF-EL200: Approx. 2.5 W
③ Power consumption of the CBK-3610XS: Approx. 3.9 W

$$Y\,[W] = X\,[V] \times 9.0\,[A]^{1)} - (60 + ① + ② + ③)^{2)}\,[W]$$

When supplying power to the above attached accessories and peripheral devices, make sure that the value Y given by the equation above does not become negative.

(Note that the equation does not apply if the calculated result Y exceeds the sum of the maximum allowable output power of each power output connector.)

[1] 6.0 [A] when using the AC-DN10.
[2] When using an AC-DN10, do not use units ① and ③ at the same time. Depending on the usage environment, the power supply rating may be exceeded.

Notes on Security

- SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND RESULTING FROM A FAILURE TO IMPLEMENT PROPER SECURITY MEASURES ON TRANSMISSION DEVICES, UNAVOIDABLE DATA LEAKS RESULTING FROM TRANSMISSION SPECIFICATIONS, OR SECURITY PROBLEMS OF ANY KIND.
- Depending on the operating environment, unauthorized third parties on the network may be able to access the unit. When connecting the unit to the network, be sure to confirm that the network is protected securely.
- From a safety standpoint, when using the unit connected with the network, it is strongly recommended to access the Control window via a Web browser and change the access limitation settings from the factory preset values (page 63).
  Changing the password regularly is also recommended.
- Do not browse any other website in the Web browser while making settings or after making settings. Since the login status remains in the Web browser, close the Web browser when you complete the settings to prevent unauthorized third parties from using the unit or harmful programs from running.

Recording Formats and Output Signals

SDI OUT Connector Output Formats

The serial digital signal from an SDI OUT connector is output according to the Project category and Monitoring category settings in the menu.
For details about Project category settings combinations, see "Recording Format Settings" (page 44).

Default values are shown underlined and in bold text.

Project			Monitoring > Output Format		Output format			
Project Frame Rate	Imager Mode	SxS Rec Format	SDI 1/2	SDI 3/4	SDI 1	SDI 2	SDI 3	SDI 4
59.94/50	4K 17:9	XAVC-I 4K Class300/Rec Off	4096×2160P 12G	–	4096×2160P YPbPr 12G	4096×2160P YPbPr 12G	No output	No output
			4096×2160P Square Level B	4096×2160P Square Level B	4096×2160P YPbPr 3G Level B-DL			
			4096×2160P 2SI Level B	4096×2160P 2SI Level B	4096×2160P YPbPr 3G Level B-DL			
			2048×1080P	1920×1080i	2048×1080P YPbPr 3G Level B-DL	2048×1080P YPbPr 3G Level B-DL	1920×1080i YPbPr 1.5G	1920×1080i YPbPr 1.5G
			1920×1080P	1920×1080i	1920×1080P YPbPr 3G Level B-DL	1920×1080P YPbPr 3G Level B-DL	1920×1080i YPbPr 1.5G	1920×1080i YPbPr 1.5G
			1920×1080i	1920×1080i	1920×1080i YPbPr 1.5G	1920×1080i YPbPr 1.5G	1920×1080i YPbPr 1.5G	1920×1080i YPbPr 1.5G
	3.8K 16:9	XAVC-I QFHD Class300/Rec Off	3840×2160P 12G	–	3840×2160P YPbPr 12G	3840×2160P YPbPr 12G	No output	No output
			3840×2160P Square Level B	3840×2160P Square Level B	3840×2160P YPbPr 3G Level B-DL			
			3840×2160P 2SI Level B	3840×2160P 2SI Level B	3840×2160P YPbPr 3G Level B-DL			
			1920×1080P	1920×1080i	1920×1080P YPbPr 3G Level B-DL	1920×1080P YPbPr 3G Level B-DL	1920×1080i YPbPr 1.5G	1920×1080i YPbPr 1.5G
			1920×1080i	1920×1080i	1920×1080i YPbPr 1.5G	1920×1080i YPbPr 1.5G	1920×1080i YPbPr 1.5G	1920×1080i YPbPr 1.5G
	4K 17:9/3.8K 16:9	ProRes 422 HQ HD P/ProRes 422 HD P/ProRes 422 Proxy HD P	1920×1080P	1920×1080i	1920×1080P YPbPr 3G Level B-DL	1920×1080P YPbPr 3G Level B-DL	1920×1080i YPbPr 1.5G	1920×1080i YPbPr 1.5G
		MPEG 1920×1080i/ProRes 422 HQ HD i/ProRes 422 HD i/ProRes 422 Proxy HD i	1920×1080i	1920×1080i	1920×1080i YPbPr 1.5G	1920×1080i YPbPr 1.5G	1920×1080i YPbPr 1.5G	1920×1080i YPbPr 1.5G

Project			Monitoring > Output Format		Output format			
Project Frame Rate	Imager Mode	AXS Rec Format	SDI 1/2	SDI 3/4	SDI 1	SDI 2	SDI 3	SDI 4
47.95	4K 4:3/4K 17:9	RAW SQ/ X-OCN XT/ X-OCN ST/ X-OCN LT/ Rec Off	4096×2160P Square Level B	4096×2160P Square Level B	4096×2160P YPbPr 3G Level B			
			4096×2160P 2SI Level B	4096×2160P 2SI Level B	4096×2160P YPbPr 3G Level B			
			2048×1080P Level B	1920×1080P	2048×1080P YPbPr 3G Level B		1920×1080P YPbPr 1.5G	
			1920×1080P	1920×1080P	1920×1080P YPbPr 1.5G		1920×1080P YPbPr 1.5G	

Project			Monitoring > Output Format		Output format			
Project Frame Rate	Imager Mode	SxS Rec Format	SDI 1/2	SDI 3/4	SDI 1	SDI 2	SDI 3	SDI 4
29.97/25 [Note] 6K 3:2 is not supported when Project Frame Rate is set to 29.97.	6K 1.85:1/ 6K 2.39:1/ 6K 3:2/ 6K 17:9/ 5.7K 16:9/ 4K 4:3/ 4K 6:5/ 4K 17:9	XAVC-I 4K Class480/ XAVC-I 4K Class300/ Rec Off	4096×2160P 6G	–	4096×2160P YPbPr 6G	4096×2160P YPbPr 6G	No output	No output
			4096×2160P 2SI	–	4096×2160P YPbPr 3G Level B-DS		No output	No output
			4096×2160P Square	4096×2160P Square	4096×2160P YPbPr 1.5G			
			2048×1080PsF	1920×1080PsF	2048×1080PsF YPbPr 1.5G	2048×1080PsF YPbPr 1.5G	1920×1080PsF YPbPr 1.5G	1920×1080PsF YPbPr 1.5G
			1920×1080PsF	1920×1080PsF	1920×1080PsF YPbPr 1.5G	1920×1080PsF YPbPr 1.5G	1920×1080PsF YPbPr 1.5G	1920×1080PsF YPbPr 1.5G
	3.8K 16:9	XAVC-I QFHD Class480/ XAVC-I QFHD Class300/Rec Off	3840×2160P 6G	–	3840×2160P YPbPr 6G	3840×2160P YPbPr 6G	No output	No output
			3840×2160P 2SI	–	3840×2160P YPbPr 3G Level B-DS		No output	No output
			3840×2160P Square	3840×2160P Square	3840×2160P YPbPr 1.5G			
			1920×1080PsF	1920×1080PsF	1920×1080PsF YPbPr 1.5G	1920×1080PsF YPbPr 1.5G	1920×1080PsF YPbPr 1.5G	1920×1080PsF YPbPr 1.5G
	6K 1.85:1/ 6K 2.39:1/ 6K 3:2/ 6K 17:9/ 5.7K 16:9/ 4K 4:3/ 4K 6:5/ 4K 17:9/ 3.8K 16:9	MPEG 1920×1080P/ ProRes 422 HQ HD P/ ProRes 422 HD P/ ProRes 422 Proxy HD P	1920×1080PsF	1920×1080PsF	1920×1080PsF YPbPr 1.5G	1920×1080PsF YPbPr 1.5G	1920×1080PsF YPbPr 1.5G	1920×1080PsF YPbPr 1.5G

Project			Monitoring > Output Format		Output format			
Project Frame Rate	Imager Mode	SxS Rec Format	SDI 1/2	SDI 3/4	SDI 1	SDI 2	SDI 3	SDI 4
24	6K 1.85:1/ 6K 2.39:1/ 6K 3:2/ 6K 17:9/ 4K 4:3/ 4K 6:5/ 4K 17:9	XAVC-I 4K Class480/ XAVC-I 4K Class300/ Rec Off	4096×2160P 6G	–	4096×2160P YPbPr 6G	4096×2160P YPbPr 6G	No output	No output
			4096×2160P 2SI	–	4096×2160P YPbPr 3G Level B-DS		No output	No output
			4096×2160P Square	4096×2160P Square	4096×2160P YPbPr 1.5G			
			2048×1080P	1920×1080P	2048×1080PsF YPbPr 1.5G	2048×1080PsF YPbPr 1.5G	1920×1080P YPbPr 1.5G	1920×1080P YPbPr 1.5G
			1920×1080PsF	1920×1080P	1920×1080PsF YPbPr 1.5G	1920×1080PsF YPbPr 1.5G	1920×1080P YPbPr 1.5G	1920×1080P YPbPr 1.5G
		ProRes 422 HQ HD P/ ProRes 422 HD P/ ProRes 422 Proxy HD P	1920×1080PsF	1920×1080P	1920×1080PsF YPbPr 1.5G	1920×1080PsF YPbPr 1.5G	1920×1080P YPbPr 1.5G	1920×1080P YPbPr 1.5G
	3.8K 16:9	Rec Off	3840×2160P 6G	–	3840×2160P YPbPr 6G	3840×2160P YPbPr 6G	No output	No output
			3840×2160P Square	3840×2160P Square	3840×2160P YPbPr 1.5G			
			3840×2160P 2SI	–	3840×2160P YPbPr 3G Level-B	3840×2160P YPbPr 3G Level-B	No output	No output
			1920×1080PsF	1920×1080P	1920×1080PsF YPbPr 1.5G	1920×1080PsF YPbPr 1.5G	1920×1080P YPbPr 1.5G	1920×1080P YPbPr 1.5G

Project			Monitoring > Output Format		Output format			
Project Frame Rate	Imager Mode	SxS Rec Format	SDI 1/2	SDI 3/4	SDI 1	SDI 2	SDI 3	SDI 4
23.98	6K 1.85:1/ 6K 2.39:1/ 6K 3:2/ 6K 17:9/ 5.7K 16:9/ 4K 4:3/ 4K 6:5/ 4K 17:9	XAVC-I 4K Class480/ XAVC-I 4K Class300/ Rec Off	4096×2160P 6G	–	4096×2160P YPbPr 6G	4096×2160P YPbPr 6G	No output	No output
			4096×2160P 2SI	–	4096×2160P YPbPr 3G Level B-DS		No output	No output
			4096×2160P Square	4096×2160P Square	4096×2160P YPbPr 1.5G			
			2048×1080P	–	2048×1080PsF YPbPr 1.5G	2048×1080PsF YPbPr 1.5G	1920×1080P YPbPr 1.5G	1920×1080P YPbPr 1.5G
			1920×1080PsF	1920×1080P	1920×1080PsF YPbPr 1.5G	1920×1080PsF YPbPr 1.5G	1920×1080P YPbPr 1.5G	1920×1080P YPbPr 1.5G
	3.8K 16:9	XAVC-I QFHD Class480/ XAVC-I QFHD Class300/ Rec Off	3840×2160P 6G	–	3840×2160P YPbPr 6G	3840×2160P YPbPr 6G	No output	No output
			3840×2160P 2SI	–	3840×2160P YPbPr 3G Level B-DS		No output	No output
			3840×2160P Square	3840×2160P Square	3840×2160P YPbPr 1.5G			
			1920×1080PsF	1920×1080P	1920×1080PsF YPbPr 1.5G	1920×1080PsF YPbPr 1.5G	1920×1080P YPbPr 1.5G	1920×1080P YPbPr 1.5G
	6K 1.85:1/ 6K 2.39:1/ 6K 3:2/ 6K 17:9/ 5.7K 16:9/ 4K 4:3/ 4K 6:5/ 4K 17:9/ 3.8K 16:9	MPEG 1920×1080P/ ProRes 422 HQ HD P/ ProRes 422 HD P/ ProRes 422 Proxy HD P	1920×1080PsF	1920×1080P	1920×1080PsF YPbPr 1.5G	1920×1080PsF YPbPr 1.5G	1920×1080P YPbPr 1.5G	1920×1080P YPbPr 1.5G

MONITOR OUT Connector/HDMI OUT Connector Output Formats

The digital signal from the MONITOR OUT and HDMI OUT connectors is output according to the Project category and Monitoring category settings in the menu.
For details about Project category settings combinations, see "Recording Format Settings" (page 44).

Default values are shown underlined and in **bold** text.

Project			Monitoring > Output Format				Output format	
Project Frame Rate	Imager Mode	SxS Rec Format	SDI 1/2	SDI 3/4	Monitor	HDMI	Monitor Out	HDMI
59.94/50	4K 17:9	**XAVC-I 4K Class300**/Rec Off	4096×2160P 12G	–	**1920×1080i**	4096×2160P	1920×1080i YPbPr 1.5G	4096×2160P
						1920×1080i		1920×1080i
			4096×2160P 2SI	4096×2160P 2SI	**1920×1080i**	4096×2160P	1920×1080i YPbPr 1.5G	4096×2160P
						1920×1080i		1920×1080i
			4096×2160P Square	4096×2160P Square	**1920×1080i**	**1920×1080i**	1920×1080i YPbPr 1.5G	1920×1080i
			2048×1080P	**1920×1080i**	**1920×1080i**	**1920×1080i**	1920×1080i YPbPr 1.5G	1920×1080i
			1920×1080P	**1920×1080i**	**1920×1080i**	**1920×1080i**	1920×1080i YPbPr 1.5G	1920×1080i
			1920×1080i	**1920×1080i**	**1920×1080i**	**1920×1080i**	1920×1080i YPbPr 1.5G	1920×1080i
	3.8K 16:9	**XAVC-I QFHD Class300**/Rec Off	3840×2160P 12G	–	**1920×1080i**	3840×2160P	1920×1080i YPbPr 1.5G	3840×2160P
						1920×1080i		1920×1080i
			3840×2160P 2SI	3840×2160P 2SI	1920×1080i	3840×2160P	1920×1080i YPbPr 1.5G	3840×2160P
						1920×1080i		1920×1080i
			3840×2160P Square	3840×2160P Square	1920×1080i	1920×1080i	1920×1080i YPbPr 1.5G	1920×1080i
			1920×1080P	**1920×1080i**	**1920×1080i**	**1920×1080i**	1920×1080i YPbPr 1.5G	1920×1080i
			1920×1080i	**1920×1080i**	**1920×1080i**	**1920×1080i**	1920×1080i YPbPr 1.5G	1920×1080i
	4K 17:9/ 3.8K 16:9	ProRes 422 HQ HD P/ ProRes 422 HD P/ ProRes 422 Proxy HD P	1920×1080P	**1920×1080i**	**1920×1080i**	**1920×1080i**	1920×1080i YPbPr 1.5G	1920×1080i
		ProRes 422 HQ HD i/ ProRes 422 HD i/ ProRes 422 Proxy HD i	1920×1080i	1920×1080i	1920×1080i	1920×1080i	1920×1080i YPbPr 1.5G	1920×1080i
		MPEG 1920×1080i	1920×1080i	1920×1080i	1920×1080i	1920×1080i	1920×1080i YPbPr 1.5G	1920×1080i
					–	720×480P [1][2]	No output	720×480P
						720×576P [1][3]	No output	720×576P

Project			Monitoring > Output Format				Output format	
Project Frame Rate	Imager Mode	AXS Rec Format	SDI 1/2	SDI 3/4	Monitor	HDMI	Monitor Out	HDMI
47.95	4K 4:3/4K 17:9	RAW SQ/ X-OCN XT/ X-OCN ST/ X-OCN LT/ Rec Off	4096×2160P Square Level B	4096×2160P Square Level B	**1920×1080P**	**1920×1080P**	1920×1080P YPbPr 1.5G	1920×1080P
			4096×2160P 2SI Level B	4096×2160P 2SI Level B				
			2048×1080P	**1920×1080P**				
			1920×1080P	**1920×1080P**				

Project			Monitoring > Output Format				Output format	
Project Frame Rate	Imager Mode	SxS Rec Format	SDI 1/2	SDI 3/4	Monitor	HDMI	Monitor Out	HDMI
29.97/25 [Note] 6K 3:2 is not supported when Project Frame Rate is set to 29.97.	6K 1.85:1/ 6K 2.39:1/ 6K 3:2/ 6K 17:9/ 5.7K 16:9/ 4K 4:3/ 4K 6:5/ 4K 17:9	XAVC-I 4K Class480/ XAVC-I 4K Class300/Rec Off	4096×2160P 6G	–	1920×1080PsF	4096×2160P	1920×1080PsF YPbPr 1.5G	4096×2160P
						1920×1080PsF		1920×1080PsF
			4096×2160P 2SI	–	1920×1080PsF	4096×2160P	1920×1080PsF YPbPr 1.5G	4096×2160P
						1920×1080PsF		1920×1080PsF
			4096×2160P Square	4096×2160P Square	1920×1080PsF	1920×1080PsF	1920×1080PsF YPbPr 1.5G	1920×1080PsF
			2048×1080PsF	1920×1080PsF	1920×1080PsF	1920×1080PsF	1920×1080PsF YPbPr 1.5G	1920×1080PsF
			1920×1080PsF	1920×1080PsF	1920×1080PsF	1920×1080PsF	1920×1080PsF YPbPr 1.5G	1920×1080PsF
	3.8K 16:9	XAVC-I QFHD Class480/ XAVC-I QFHD Class300/ Rec Off	3840×2160P 6G	–	1920×1080PsF	3840×2160P	1920×1080PsF YPbPr 1.5G	3840×2160P
						1920×1080PsF		1920×1080PsF
			3840×2160P 2SI	–	1920×1080PsF	3840×2160P	1920×1080PsF YPbPr 1.5G	3840×2160P
						1920×1080PsF		1920×1080PsF
			3840×2160P Square	3840×2160P Square	1920×1080PsF	1920×1080PsF	1920×1080PsF YPbPr 1.5G	1920×1080PsF
			1920×1080PsF	1920×1080PsF	1920×1080PsF	1920×1080PsF	1920×1080PsF YPbPr 1.5G	1920×1080PsF
	6K 1.85:1/ 6K 2.39:1/ 6K 3:2/ 6K 17:9/ 5.7K 16:9/ 4K 4:3/ 4K 6:5/ 4K 17:9/ 3.8K 16:9	MPEG 1920×1080P/ ProRes 422 HQ HD P/ ProRes 422 HD P/ ProRes 422 Proxy HD P	1920×1080PsF	1920×1080PsF	1920×1080PsF	1920×1080PsF	1920×1080PsF YPbPr 1.5G	1920×1080PsF

Project			Monitoring > Output Format				Output format	
Project Frame Rate	Imager Mode	SxS Rec Format	SDI 1/2	SDI 3/4	Monitor	HDMI	Monitor Out	HDMI
24	6K 1.85:1/ 6K 2.39:1/ 6K 3:2/ 6K 17:9/ 4K 4:3/ 4K 6:5/ 4K 17:9	XAVC-I 4K Class480/ XAVC-I 4K Class300/Rec Off	4096×2160P 6G	–	1920×1080P	4096×2160P 1920×1080	1920×1080P YPbPr 1.5G	4096×2160P 1920×1080P
			4096×2160P 2SI	–	1920×1080P	4096×2160P 1920×1080P	1920×1080P YPbPr 1.5G	4096×2160P 1920×1080P
			4096×2160P Square	4096×2160P Square	1920×1080P	1920×1080P	1920×1080P YPbPr 1.5G	1920×1080P
			2048×1080P	1920×1080P	1920×1080P	1920×1080P	1920×1080P YPbPr 1.5G	1920×1080P
			1920×1080PsF	1920×1080P	1920×1080P	1920×1080P	1920×1080P YPbPr 1.5G	1920×1080P
		ProRes 422 HQ HD P/ ProRes 422 HD P/ ProRes 422 Proxy HD P	1920×1080PsF	1920×1080P	1920×1080P	1920×1080P	1920×1080P YPbPr 1.5G	1920×1080P
	3.8K 16:9	Rec Off	3840×2160P 6G	–	1920×1080P	3840×2160P 1920×1080P	1920×1080PsF YPbPr 1.5G	3840×2160P 1920×1080PsF
			3840×2160P Square	3840×2160P Square	1920×1080P	1920×1080P	1920×1080P YPbPr 1.5G	1920×1080P
			3840×2160P 2SI	–	1920×1080P	3840×2160P 1920×1080P	1920×1080P YPbPr 1.5G	3840×2160P 1920×1080P
			1920×1080PsF	1920×1080P	1920×1080PsF	1920×1080P	1920×1080P YPbPr 1.5G	1920×1080P

Project			Monitoring > Output Format				Output format	
Project Frame Rate	Imager Mode	SxS Rec Format	SDI 1/2	SDI 3/4	Monitor	HDMI	Monitor Out	HDMI
23.98	6K 1.85:1/ 6K 2.39:1/ 6K 3:2/ 6K 17:9/ 5.7K 16:9/ 4K 4:3/ 4K 6:5/ 4K 17:9	XAVC-I 4K Class480/ XAVC-I 4K Class300/Rec Off	4096×2160P 6G	–	1920×1080P	4096×2160P / 1920×1080P	1920×1080P YPbPr 1.5G	4096×2160P / 1920×1080P
			4096×2160P 2SI	–	1920×1080P	4096×2160P / 1920×1080P	1920×1080P YPbPr 1.5G	4096×2160P / 1920×1080P
			4096×2160P Square	4096×2160P Square	1920×1080P	1920×1080P	1920×1080P YPbPr 1.5G	1920×1080P
			2048×1080P	1920×1080P	1920×1080P	1920×1080P	1920×1080P YPbPr 1.5G	1920×1080P
			1920×1080PsF	1920×1080P	1920×1080P	1920×1080P	1920×1080P YPbPr 1.5G	1920×1080P
	3.8K 16:9	XAVC-I QFHD Class480/ XAVC-I QFHD Class300/ Rec Off	3840×2160P 6G	–	1920×1080P	3840×2160P / 1920×1080P	1920×1080 YPbPr 1.5G	3840×2160P / 1920×1080P
			3840×2160P 2SI	–	1920×1080P	3840×2160P / 1920×1080P	1920×1080P YPbPr 1.5G	3840×2160P / 1920×1080P
			3840×2160P Square	3840×2160P Square	1920×1080P	1920×1080P	1920×1080P YPbPr 1.5G	1920×1080P
			1920×1080PsF	1920×1080P	1920×1080P	1920×1080P	1920×1080P YPbPr 1.5G	1920×1080P
	6K 1.85:1/ 6K 2.39:1/ 6K 3:2/ 6K 17:9/ 5.7K 16:9/ 4K 4:3/ 4K 6:5/ 4K 17:9/ 3.8K 16:9	MPEG 1920×1080P/ ProRes 422 HQ HD P/ ProRes 422 HD P/ ProRes 422 Proxy HD P	1920×1080PsF	1920×1080P	1920×1080P	1920×1080P	1920×1080P YPbPr 1.5G	1920×1080P

[1] When AXS Rec Format is set to Rec Off, this output is selected when Technical > System Configuration > SD HDMI is set to On in the menu.
[2] When Project Frame Rate is 59.94.
[3] When Project Frame Rate is 50.0.

Error/Warning Indications

If a warning, caution, or operating condition that requires confirmation occurs on the unit, a message is displayed on the sub display, the REC lamp starts flashing, and a warning sound is emitted.
The buzzer is output to the built-in speaker or to the headphones connected via the headphone connector.
When the unit is turned on, a message appears on the sub display screen prompting you to execute APR if the auto adjustment for the image sensor (APR) has not been performed for a certain period of time. In this case, follow the on-screen instructions to execute APR (page 64).

Error Display

The unit will stop operation when the following kind of display occurs.

Error display indication	Buzzer	REC lamp	Cause and Solution
E + Error code	Intermittent	High-speed flashing	The unit may be defective. Recording stops even if ●REC is displayed on the viewfinder/monitor screen. Turn off the power and check the connected equipment, cables, and media. If the error persists when the unit is turned on again, contact your Sony service representative. (If power cannot be turned off by setting the power switch to OFF, remove the battery pack or the DC IN source.)

Warning Display

When one of the following messages occurs, use the following table to resolve the problem.

Warning display indication	Buzzer	REC lamp	Cause and Solution
Media Full [1]	Continuous	High-speed flashing	Clips could not be recorded, copied, or split because there is no remaining capacity on the SxS memory card. Replace immediately.
Battery End [1]	Continuous	High-speed flashing	The battery pack is dead. Recording is disabled. Stop operation and recharge the battery pack.
Temperature High [1]	Intermittent	Flashing	The internal temperature is high. Turn off the unit and allow it to cool down before operating it again.

Warning display indication	Buzzer	REC lamp	Cause and Solution
Insufficient Voltage [1]	Continuous	High-speed flashing	The DC IN voltage is too low. Recording is disabled. Connect another power source.
EXT. I/F Signal Error	Intermittent	High-speed flashing	An error was detected with the signal on the mounting terminal for an expansion unit. Check the connection to the AXS-R7 or other device.
AXS Firmware Mismatch	Continuous	High-speed flashing	The AXS-R7 cannot be operated correctly. Update the firmware version of the AXS-R7.
AXS Recorder Temp. High [1]	Intermittent	High-speed flashing	The internal temperature of the AXS-R7 is high. Turn off the unit and allow it to cool down before operating it again.
Lens Signal Error	–	–	An error was detected with the signal on the mounting terminal for an expansion unit. Check the connection to the lens or other device.

[1] Message is not displayed on the monitor screen.

Caution and Operation Confirmation Display

The following caution and operation confirmation messages may appear on the monitor screen or sub display, and warning icons may be displayed and messages displayed in the Info category > Camera Condition in the menu. Follow the instructions provided to resolve the issue.

Display indication	Cause and Solution
Battery Error Please Change Battery	An error was detected in the battery pack. Replace with a normal battery pack.
Backup Battery End Please Change	The remaining capacity of the backup battery is insufficient. Replace the backup battery.
Cannot Use SxS(A)* Please Change	A memory card that has been partitioned or a memory card containing more clips that can be handled by the unit was inserted. The card cannot be used in the unit, and must be replaced.
Cannot Use SxS(A)* Unsupported File System	A card using a different file system or an unformatted card was inserted. The card cannot be used in the unit, and must be replaced or formatted using the unit.
Media Error SxS(A)* Needs to be Restored	An error occurred with the memory card. The card requires restoration. Restore the card.

Display indication	Cause and Solution
SxS(A)* Error Recording Stopped Playback Stopped	Recording or playback stopped because an error occurred on the memory card. If the problem persists, replace the memory card.
Input AES/EBU is Invalid Emphasis	Emphasis signal that is not compatible with the AES/EBU input was input. The unit is compatible with 50u-15u Emphasis only.
Input AES/EBU is not Pro Use	A signal other than Professional Use was input to the AES/EBU input. The unit is compatible with Professional Use only.
Fan Stopped	The fan in the unit has stopped. Avoid use under high temperature conditions. Turn the unit off and contact a Sony service representative.
AXS Recorder Fan Stopped	The fan in the AXS-R7 that is connected to the unit has stopped. Avoid use under high temperature conditions. Remove the AXS-R7 from the unit and contact a Sony service representative.
Unsupported FPS Change AXS(A) to AXS S48 Memory	Unsupported AXS memory was detected. Recording cannot be performed. Change the recording format for the AXS memory card, or change the card to an AXS-A512S48 or AXS-A1TS48.
Abnormal Lens Communication Please Check "Lens IF" Setting	The type of the connected lens does not match the unit's setting. Check the Technical > System Configuration > Lens Interface setting in the menu.
Please Execute APR	The auto adjusting of the image sensor (APR) has not been executed for a certain period. Execute APR by pressing the MENU dial.
XXXX License Y days Remaining (XXXX: Type of license, Y: Number of days remaining)	There are 2 days remaining before the license for the software option will expire.
Lens I/F Error	A fault was detected in the lens I/F communication when an E-mount lens is attached. Check the connection to the E-mount lens.

*   "SxS(B)" is displayed for the SxS memory card in slot B, "AXS(A)" is displayed for the AXS memory card in slot A of the AXS-R7, and "AXS(B)" is displayed for the AXS memory card in slot B of the AXS-R7.

Items Saved in Files

Table legend
Yes: Saved
No: Not saved
–: Not saved (temporary setting)

Shooting Menu

Item	Sub-item	File type
		All
FPS	Fixed/Variable Select	Yes
	FPS Select	Yes
Shutter [1]	Shutter Select	Yes
	Step/Cont. Select	Yes
	Add/Change Step	Yes
	Delete Step	Yes
ND	ND Position	Yes
Exposure Index	EI Select	Yes
White Balance [1]	Color Temp. Select	Yes
	Add/Change Step	Yes
	Delete Step	Yes
	Auto White Balance	–
LUT Select	SDI 1/2	Yes
	SDI 3/4	Yes
	Monitor	Yes
	HDMI	Yes
	VF LUT	Yes
	SxS Rec	Yes
	Sub Rec	Yes
Look	Category	Yes
	Preset Look Select	Yes
	User 3D LUT Select	Yes
	ASC CDL Process	Yes
	ASC CDL Select	Yes
	ASC CDL Information	–

Item	Sub-item	File type
		All
Look File	Load User 3D LUT	–
	Reset User 3D LUT	–
	Reset All User 3D LUTs	–
	Load ASC CDL	–
	Reset ASC CDL	–
	Reset All ASC CDLs	–

[1] Selection options added or edited by a user are also saved.

Project Menu

Item	Sub-item	File type
		All
Basic Setting	Imager Mode	Yes
	Project Frame Rate	Yes
	Input Color Space	Yes
	AXS Rec Format	Yes
	SxS Rec Format	Yes
	Sub Rec Format	Yes
	Base ISO	Yes
	SxS/Output De-Squeeze	No
Special Recording	Cache Rec Select	Yes
	Cache Rec Duration	Yes
Assignable Button	<1>	Yes
	<2>	Yes
	<3>	Yes
	<4>	Yes
	<User 1>	Yes
	<User 2>	Yes
	<User 3>	Yes
	<User 4>	Yes
	<User 5>	Yes
All File	Load SD Card	–
	Save SD Card	–
	File ID	Yes
	Format SD Card	–

TC/Media Menu

Item	Sub-item	File type
		All
Timecode	Mode	Yes
	Manual Setting	–
	Reset	–
	TC Format	Yes
	TC Source	–
	Time Data Display	Yes
Clip Name Format	Camera ID	Yes
	Reel Number	Yes
	Camera Position	Yes
	SxS Root Folder Name	Yes
Format Media	AXS Slot A	–
	AXS Slot B	–
	SxS Slot A	–
	SxS Slot B	–
	SD Card	–
Update Media	AXS Slot A	–
	AXS Slot B	–
	SxS Slot A	–
	SxS Slot B	–

Monitoring Menu

Item	Sub-item	File type All
Output Format	SDI 1/2	Yes
	SDI 3/4	Yes
	Monitor	Yes
	HDMI	Yes
OSD Appearance	VF	Yes
	SDI SDI 1/2 SDI 3/4	Yes
	Monitor	Yes
	HDMI	–
	Status Info A/B Setup	Yes
	Frame Line A/B Setup	Yes
Monitor Display	Focus Distance Format	Yes
Frame Line	Center Marker	Yes
	Aspect Ratio	Yes
	Aspect Safety Zone	Yes
	Safety Zone	Yes
	Color	Yes
	Surround View Type	Yes
	Aspect Ratio Type	Yes
	Mask Level	Yes
	Frame Line on Playback	Yes
User Frame Line	Width	Yes
	Height	Yes
	H Position	Yes
	V Position	Yes

Item	Sub-item	File type All
False Color	Level	Yes
	Red	Yes
	Red Upper Limit	Yes
	Red Lower Limit	Yes
	Yellow	Yes
	Yellow Upper Limit	Yes
	Yellow Lower Limit	Yes
	Orange	Yes
	Orange Upper Limit	Yes
	Orange Lower Limit	Yes
	Pink	Yes
	Pink Upper Limit	Yes
	Pink Lower Limit	Yes
	Light Pink	Yes
	Light Pink Upper Limit	Yes
	Light Pink Lower Limit	Yes
	Cyan	Yes
	Cyan Upper Limit	Yes
	Cyan Lower Limit	Yes
	Green	Yes
	Green Upper Limit	Yes
	Green Lower Limit	Yes
	Light Blue	Yes
	Light Blue Upper Limit	Yes
	Light Blue Lower Limit	Yes
	Blue	Yes
	Blue Upper Limit	Yes
	Blue Lower Limit	Yes
	Purple	Yes
	Purple Upper Limit	Yes
	Purple Lower Limit	Yes
	Reset	–
VF Display	VF LUT	Yes
	Status Info	Yes
	Frame Line	Yes
	VF Magnifier Ratio	Yes
	Color	Yes

Item	Sub-item	File type
		All
VF Function	Double Speed Scan	Yes
	Peaking Frequency	Yes
	Zebra	Yes
	Zebra Select	Yes
	Zebra1 Level	Yes
	Zebra1 Aperture Level	Yes
	Zebra2 Level	Yes

Audio Menu

Item	Sub-item	File type
		All
Audio Input	CH-1 Audio Select	Yes
	CH-2 Audio Select	Yes
	CH-1 Audio Level	Yes
	CH-2 Audio Level	Yes
	MIC Reference	Yes
Audio Monitor	Monitor CH	Yes
	Monitor Level	Yes
Audio Configuration	Alarm Level	Yes
	Input Limiter Mode	Yes
	AGC Level	Yes
	AGC Mono/Stereo	Yes
	MIC Input Mono/Stereo	Yes
	Phantom Power +48V	Yes
	Monitor Output CH Pair	Yes
	Headphone Mono/ST	Yes

Technical Menu

Item	Sub-item	File type
		All
Test Signals	Color Bars	Yes
	Color Bars Type	Yes
	1kHz Tone on Color Bars	Yes
	Test Saw	Yes
Switch & Rec Light	Lock Operator Side	Yes
	Lock Assistant Side	Yes
	Rec Light	Yes
	Rec Start/Stop Beep	Yes
System Configuration	Fan Control	Yes
	Lens Interface	Yes
	Lens 12pin	Yes
	SDI Rec Remote Trigger	Yes
	SD HDMI	Yes
	Shutter Mode	Yes
Special Configuration	Flip Image	Yes
	NR(4K 17:9/16:9 AXS)	Yes
Authentication	User Name	No
	Password	No
Network	Setting	Yes
	LAN	Yes
	Wireless	Yes [1]
APR	APR	–
	Reset	–
Battery	Near End:Info Battery	Yes
	End:Info Battery	Yes
	Near End:Sony Battery	Yes
	End:Sony Battery	Yes
	Near End:Other Battery	Yes
	End:Other Battery	Yes
	Detected Battery	–
DC Voltage Alarm	DC Low Voltage1	Yes
	DC Low Voltage2	Yes
	DC(24V) Low Voltage1	Yes
	DC(24V) Low Voltage2	Yes

Item	Sub-item	File type
		All
Control Display	Brightness level	Yes
Genlock	Input Source	Yes
	Reference Lock Type	–
Lens Configuration	E-Mount Shading Comp.	Yes
	E-Mt Chro. Aber. Comp.	Yes

[1] The following items are not saved.
- Scan Networks
- SSID
- Password
- WPS
- MAC Address
- Regenerate Password

Maintenance Menu

Item	Sub-item	File type
		All
Clock Set	Time Zone	Yes
	Date Mode	Yes
	Date	–
	Time	–
Language	Select	Yes
Hours Meter	Camera(System)	–
	R7 Recorder(System)	–
	Camera(Resettable)	–
	R7 Recorder(Resettable)	–
	Reset-Cam(Resettable)	–
	Reset-R7(Resettable)	–
Reset to Default	Reset	–
License Options	Install: xxx	–
	Anamorphic	–
	Full-Frame	–
	Unique Device ID	–
Firmware	Camera	–
	AXS	–
	FW Update-camera	–
	FW Update-AXS-R7	–

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Specifications

General Specifications

Mass   Approx. 3.9 kg (8 lb 9.6 oz) (excluding handle, VF attachment, bottom cover)

Dimensions   See page 105.

Power requirements
12 V DC (11 V to 17 V)
24 V DC (22 V to 32 V)

Power consumption
Approx. 60 W (when recording XAVC)

Operating temperature
0 °C to 40 °C (32 °F to 104 °F)

Storage temperature
–20 °C to +60 °C (–4 °F to +140 °F)

Continuous operating time
Approx. 60 minutes (using BP-FLX75)

Recording format (video)
RAW SQ (4K 17:9, 3.8K 16:9) (when the AXS-R7 is attached)
X-OCN XT (when the AXS-R7 is attached)
X-OCN ST (when the AXS-R7 is attached)
X-OCN LT (when the AXS-R7 is attached)
XAVC-I Class480 (4K, QFHD)
XAVC-I Class300 (4K, QFHD)
MPEG HD422 (HD)
Apple ProRes 422 HQ (HD)
Apple ProRes 422 (HD)
Apple ProRes 422 Proxy (HD)

Recording format (audio)
LPCM 8CH (2CH recording/playback), 24-bit, 48 kHz

Recording frame rate
RAW SQ (when the AXS-R7 is attached):
4K 17:9/3.8K 16:9
59.94P/50P/29.97P/25P/24P/23.98P
X-OCN (when the AXS-R7 is attached):
6K 3:2
25P/24P/23.98P
6K 17:9/6K 1.85:1/6K 2.39:1/5.7K 16:9/4K 6:5/4K 17:9 Surround View/4K 4:3/4K 4:3 Surround View/3.8K 16:9 Surround View
29.97P/25P/24P/23.98P
4K 17:9/3.8K 16:9
59.94P/50P/29.97P/25P/24P/23.98P
4K 4:3/4K 17:9
47.95P
XAVC-I Class480:
4K: 4096×2160
29.97P/25P/24P/23.98P
QFHD: 3840×2160
29.97P/25P/ 23.98P
XAVC-I Class300:
4K: 4096×2160
59.94P/50P/29.97P/25P/24P/23.98P
QFHD: 3840×2160
59.94P/50P/29.97P/25P/23.98P
MPEG HD422(50Mbps):
HD: 1920×1080
29.97P/25P/23.98P/59.94i/50i
Apple ProRes 422 HQ:
HD: 1920×1080
23.98P/24P/25P/29.97P/50i/59.94i/50P/59.94P
Apple ProRes 422:
HD: 1920×1080
23.98P/24P/25P/29.97P/50i/59.94i/50P/59.94P
Apple ProRes 422 Proxy (HD)
HD: 1920×1080
23.98P/24P/25P/29.97P/50i/59.94i/50P/59.94P

Recording/playback time
XAVC-I Class480 23.98P
Approx. 34 minutes when using SBP-128B/C/D
XAVC-I Class300 23.98P
Approx. 54 minutes when using SBP-128B/C/D
MPEG2 HD422
Approx. 108 minutes when using SBS-64G1A/B
Apple ProRes 422 HQ (HD) 23.98P
Approx. 33 minutes when using SBP-64A/B/C/D/E
Apple ProRes 422 (HD) 23.98P
Approx. 49 minutes when using SBP-64A/B/C/D/E
Apple ProRes 422 Proxy (HD) 23.98P
Approx. 145 minutes when using SBS-64G1A/B/C

[Note]
The recording and playback times are for a continuous recording as a single clip. The actual times may be shorter, depending on the number of clips recorded. The recording/playback time may vary due to usage conditions and memory characteristics.

Camera

Imaging device
35 mm full size, single-chip CMOS image sensor

Number of pixels   24.8 M (total)

Built-in filters

| | ND filter A | | |
	Clear	0.3 (1/2)	0.6 (1/4)
ND filter B	Clear	Clear	0.3 (1/2)	0.6 (1/4)
	0.9 (1/8)	0.9 (1/8)	1.2 (1/16)	1.5 (1/32)
	1.8 (1/64)	1.8 (1/64)	2.1 (1/128)	2.4 (1/256)

ISO sensitivity
ISO 500 (D55 light source)
ISO 2500 (D55 light source)

Lens mount
PL mount (with lens mount adaptor)
E mount (without lens mount adaptor)

Flange focal length
PL mount: 52 mm
E mount: 18 mm

Latitude   15+ stops

Input/Output

Audio input
CH-1/CH-2: XLR-type 5-pin (female) (1), LINE / AES/EBU / MIC / MIC+48V selectable

DC input
XLR-type 4-pin (male), 11 to 17 V or 22 V to 32 V DC

DC output (12 V)
Hirose 4-pin (1),
11 V to 17 V DC (Output voltage: Same as input voltage, Maximum output current: 1.0 A),
22 V to 32 V DC (Output voltage: 15 V, Maximum output current: 0.8 A),
Using battery adaptor

[Notes]
- You can output a REC Tally signal and input a REC Trigger signal through the 12V OUT connector.
- Connect to the 12V OUT connector only devices with current consumption of 1.0 A or lower when the input voltage is 11 V to 17 V, or 0.8 A or lower when the input voltage is 22 V to 32 V.

DC output (24 V)
Fischer 3-pin (2),
11 V to 17 V DC (Output voltage: 24 V, Maximum output current: 1.0 A),
22 V to 32 V DC (Output voltage: Same as input voltage, Maximum output current: 2.0 A)

[Note]
Connect to the 24V OUT connector only devices with current consumption of 1.0 A or lower when the input voltage is 11 V to 17 V, or 2.0 A or lower when the input voltage is 22 V to 32 V.

SDI output BNC type (4)
    3G-SDI: SMPTE ST424/425
      Level B-DL/DS
    HD SDI: SMPTE ST292 compliant
AUX
    LEMO 5-pin (1)
Viewfinder output
    LEMO 26-pin (1)
Network
    RJ45 type (1)
Remote control
    8-pin (1)
MONITOR output
    BNC type (1)
    HD SDI: SMPTE ST292 compliant
Timecode input
    TC IN: BNC type (1)
GENLOCK input
    BNC type (1)
HDMI output
    Type A (1)
External device connector
    USB host: Type A (1)
Headphones output
    Stereo mini jack (1)
Speaker output
    Monaural

Media Slots

Type   ExpressCard/34 slot (2)
    SD card slot (1)

Supplied Accessories

VF attachment (1)
Handle (1)
VF cable (A-2203-745-A) (1)
Shim (circular) (4-730-328-11) (1)
Shim (1/3 arc) (4-730-328-21) (15)
E mount lens cover (1)
Before Using This Unit (1)
Operating Instructions (CD-ROM) (1)

Optional Accessories

0.7-inch type viewfinder
    DVF-EL200
7-inch type viewfinder
    DVF-L700
VF cable for attaching DVF-L700
    A-2201-632-A or A-2201-633-A
Camera Extension System
    CBK-3610XS
Wireless LAN Adaptor
    CBK-WA02
Portable Memory Recorder
    AXS-R7
SxS memory cards (SxS Pro+/SxS-1)
    SBP-64/128/256E,
      SBS-32/64/128G1C
Card Reader
    SBAC-US30, SBAC-UT100, AXS-AR1
Shoulder Adaptor (attaches to VCT-14 using
    V shoe)
    VCT-FSA5
PL mount lens
    SCL-PK6/F (Feet), SCL-PK6/M (Meters)
      (6-lens kit: 20, 25, 35, 50, 85, 135
      mm),
      SCL-P11X15 (11 mm to 16 mm
      zoom)
E mount lens
    SELP28135G, SEL1635GM, SEL2470GM,
      SEL70200GM, SEL100400GM,
      SEL1224G, SEL35F14Z, SEL50F14Z,
      SEL85F14GM, SEL90M28G,
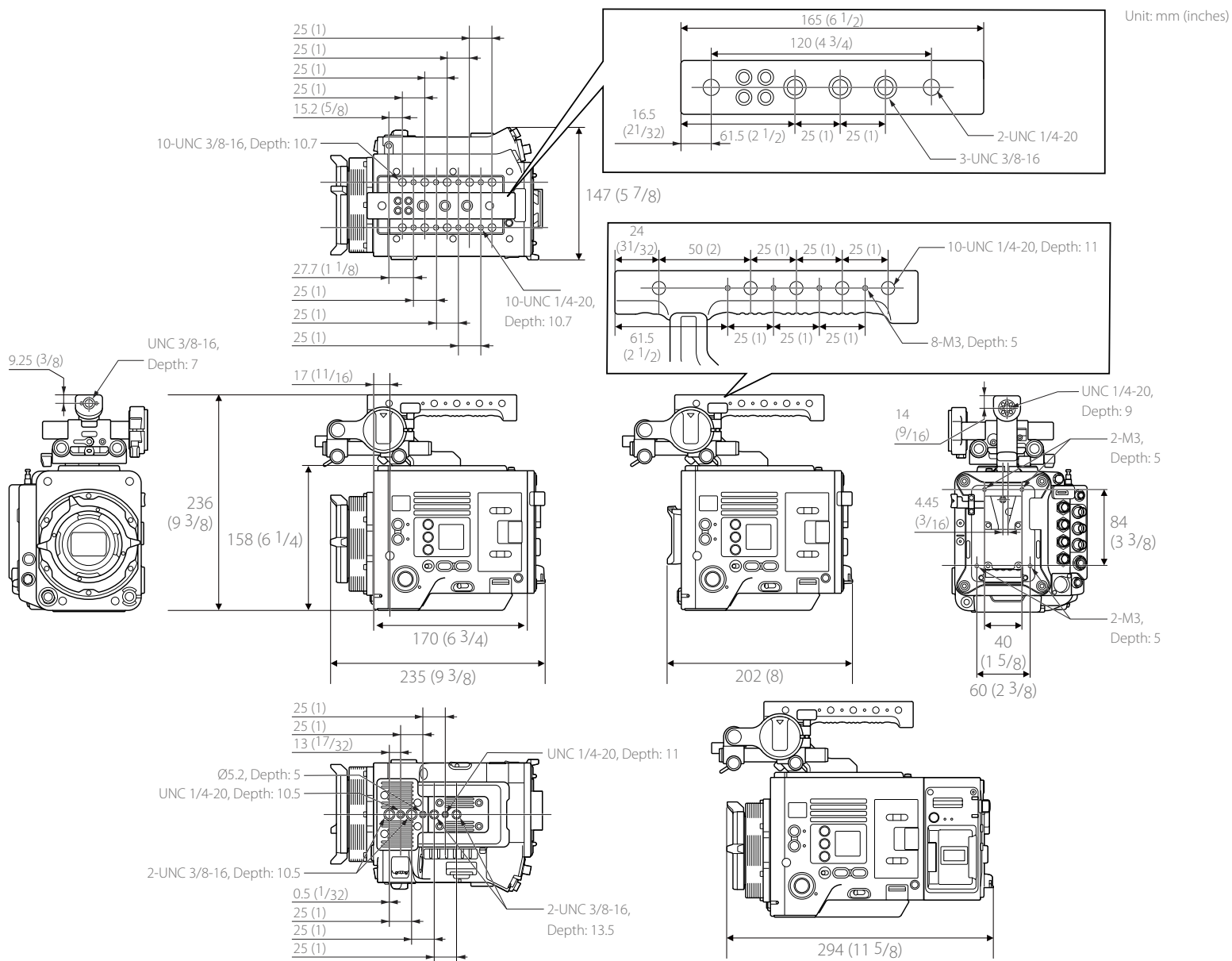   SEL100F28GM
Battery Pack
    BP-FL75, BP-FLX75
AC Adaptor
    AC-DN2B, AC-DN10
Microphone   ECM-680S, ECM-678*, ECM-674*
    (*: EC-0.5X3F5M 3-pin XLR to 5-pin
    XLR adaptor cable required)
Dual Battery Adaptor
    BKW-L200 (connection via battery
    connection adaptor)
SDI/HDMI Monitor
    BVM series, PVM series, LMD series
XQD memory cards (QDA-EX1 XQD to SxS
    ExpressCard Adaptor required)
    QD-S64E, QD-S32E, QD-N64,
      QD-M128A, QD-M64A, QD-M32A,
      QD-G128A/E, QD-G64A/E,
      QD-G32A/E

Design and specifications are subject to change without notice.

Notes
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Dimensions

Unit: mm (inches)

25 (1)
25 (1)
25 (1)
25 (1)
15.2 (5/8)

10-UNC 3/8-16, Depth: 10.7

27.7 (1 1/8)
25 (1)
25 (1)
25 (1)

147 (5 7/8)

10-UNC 1/4-20, Depth: 10.7

165 (6 1/2)
120 (4 3/4)

16.5 (21/32)
61.5 (2 1/2) 25 (1) 25 (1)

2-UNC 1/4-20
3-UNC 3/8-16

24 (31/32) 50 (2) 25 (1) 25 (1) 25 (1) 10-UNC 1/4-20, Depth: 11

61.5 (2 1/2) 25 (1) 25 (1) 25 (1) 8-M3, Depth: 5

UNC 3/8-16, Depth: 7

9.25 (3/8)

17 (11/16)

236 (9 3/8)

158 (6 1/4)

170 (6 3/4)

235 (9 3/8)

202 (8)

UNC 1/4-20, Depth: 9

14 (9/16)
2-M3, Depth: 5

4.45 (3/16)

84 (3 3/8)

2-M3, Depth: 5

40 (1 5/8)

60 (2 3/8)

25 (1)
25 (1)
13 (17/32)

UNC 1/4-20, Depth: 11

Ø5.2, Depth: 5
UNC 1/4-20, Depth: 10.5

2-UNC 3/8-16, Depth: 10.5

0.5 (1/32)
25 (1)
25 (1)
25 (1)

2-UNC 3/8-16, Depth: 13.5

294 (11 5/8)

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