SIGMA
FP2

INSTRUCTION MANUAL

Digital Camera
FW Ver.0.00

Ver.0.1

This instruction manual is not the final version. It is scheduled to be updated at a later date. Please note that some contents may differ from the actual product, and some explanations may be incomplete.

C48EN25XX
E ENGLISH

Thank you for purchasing the Sigma FP2.

- Please read this manual carefully so that you will learn how to use the product correctly. Be sure to read the "SAFETY PRECAUTIONS" on page X and "PRECAUTIONS FOR HANDLING" on page XX before using your camera.
- Please keep the instruction manual available whenever necessary and refer to it if you have any questions.
- For details on the warranty and after-sales service for this product, please check the Sigma website.

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HIGH-DEFINITION MULTIMEDIA INTERFACE

HEVC Advance™
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- This product is licensed under the AVC Patent Portfolio License, but not licensed for any use other than the personal or non-commercial use of the customer in connection with the activities described below.
  - The image information shall be recorded in compliance with the AVC standard (hereinafter referred to as "AVC video").
  - The AVC video recorded by a consumer engaged in a personal activity, or the AVC video obtained from a licensed provider shall be played.

  For details, please refer to the MPEG LA, L.L.C. website (http://www.mpegla.com).

For details on the open source software, please visit the SIGMA website.

sigma-global.com/en/support/open-source-software.html



Disposal of Electric and Electronic Equipment in Private Households
Disposal of used Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)
This symbol indicates that this product shall not be treated as household waste.
Instead it shall be collected separately for the recycling of electrical and electronic equipment. If the new products are purchased, this product might be handed over to the distributor or the collection system of waste electrical and electronic equipment eventually. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product or components of this product. If this product is disposed illegally, it might cause a possibility of penalties. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you have purchased the product.

CE
The CE Mark is a Directive conformity mark of the European Community (EC).

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UK
CA
To users in the UK (excluding Northern Ireland)
UK Importer: The following importer description applies to products imported into the UK directly by SIGMA Imaging (UK) Ltd.
SIGMA Imaging (UK) Ltd.
1 Little Mundells, Welwyn Garden City, Hertfordshire, AL7 1EW

SIGMA C5X1
Tested To Comply
With FCC Standards
FOR HOME OR OFFICE USE

SIGMA CORPORATION OF AMERICA
15 Fleetwood Court, Ronkonkoma, NY 11779, U.S.A. TEL: 631 585 1144

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For customers in the U.S.A.
Federal Communications Commission (FCC) Radio Frequency Interference Statement
This equipment has been tested and found to comply with the limits for class B digital devices, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Use of interface cable is required to comply with class B limits in Subpart B of Part 15 of FCC Rules.
Any changes or modifications to this equipment not specified in this manual may void your warranty.

For customers in the Canada
This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Australian RCM

SIGMA CORPORATION
2-4-16 Kurigi, Asao-ku, Kawasaki-shi, Kanagawa 215-8530 Japan
Phone : 044-989-7430 Fax : 044-989-7451

CHECKING THE CAMERA AND ACCESSORIES

Before using the camera, please check that you have all of the following items. If any of the following items are missing, please contact the store where you purchased the camera.

① FP2 Camera Body
② Body Cap (on the camera)
③ Strap Holder (two)
④ Strap
⑤ Pouch
⑥ Li-ion Battery Pack BP-91
⑦ Start Guide
⑧ Booklet
⑨ Limited Warranty
⑩ Warranty Sticker

- This camera features approximately 70GB of built-in memory, allowing you to record images using only the camera body. It also supports recording to commercially available memory cards and USB storage devices. Memory cards and USB storage devices must be purchased separately.

TABLE OF CONTENTS

COPYRIGHT, TRADEMARKS, AND LICENSES..... 3
CHECKING THE CAMERA AND ACCESSORIES 7
TABLE OF CONTENTS 8
SAFETY PRECAUTIONS 14
PRECAUTIONS FOR HANDLING 19
SD MEMORY CARDS (OPTIONAL) 21
ABOUT THE LENSES 22
ELECTRONIC SHUTTER..... 23
CARE INSTRUCTIONS 23
DESCRIPTION OF THE PARTS 26

PREPARATION 30
ATTACHING THE CARRY STRAP 30
TO CHARGE THE BATTERY 32
ABOUT THE EXTERNAL POWER SUPPLY..... 37
MOUNTING AND REMOVING THE LENS 38
CONFIGURING THE INITIAL SETTINGS..... 40
CHECKING THE BATTERY POWER LEVEL 42
ABOUT TOUCH OPERATIONS..... 43
ABOUT CINE/STILL SWITCH 43
CAMERA SET-UP MENU 44
LIST OF MENU FUNCTIONS..... 49
QUICK SET MENU..... 56
CHANGING THE DISPLAY MODE 59
SELECTING THE MEMORY STORAGE 61
TO INSERT THE CARD 62
HOW TO PRESS THE SHUTTER BUTTON..... 64
ADJUSTING THE LCD MONITOR ANGLE..... 64
QUICK PREVIEW 65

DOING THE SHOOTING 66
TAKING A PICTURE 66
SHOOTING A MOVIE 67
DETERMINING THE EXPOSURE 69
SELECTING THE EXPOSURE MODE 70
P PROGRAM AE 71
A APERTURE PRIORITY AE 72
S SHUTTER SPEED (SHUTTER ANGLE) PRIORITY AE 75
M MANUAL EXPOSURE 76
ABOUT FLICKER REDUCTION 78
BULB SETTING 81
EXPOSURE COMPENSATION 82
AE METERING MODE 83
AEL BUTTON 84
BRIGHTNESS LEVEL MONITOR 86
EXPOSURE ASSIST 87
ISO SENSITIVITY SETTING 89
LOW ISO SENSITIVITY EXPANSION 90
LOG/RAW ISO EXPANSION 91
ISO AUTO RANGE 92
FOCUSING 93
HOW TO USE AUTOFOCUS 93
FOCUS MODE SETTING 94
SINGLE AF 95
CONTINUOUS AF 97
TRACKING AF 98
FOCUS FRAME SETTING 101
MULTI-POINT AUTO FOCUS 101
1 POINT (1-POINT SELECTION) 102
SUBJECT TRACKING 104
AF SHIFT 106
MANUAL FOCUSING 107
AF-S AUTO REVIEW / MF AUTO REVIEW 108
DRIVE MODE 123

SINGLE CAPTURE 123
CONTINUOUS SHOOTING 124
SELF TIMER SHOOTING 125
INTERVAL TIMER 126
IMAGE STABILIZATION 129
LENS OPTICAL STABLIZATION 129
ELECTRONIC STABLIZATION 130
GYRO DATA OUTPUT 131
IMAGE FILE SETTING 132
IMAGE QUALITY SETTING 132
ASPECT RATIO SETTING 133
MOVIE RECORD SETTING 135
FORMAT 135
RESOLUTION 137
FRAME RATE 138
DC CROP (Super35) MODE 144
DIRECTOR'S VIEWFINDER 146
AUDIO RECORD SETTING 152
WHITE BALANCE SETTING (WB) 159
FINE-ADJUSTING THE WHITE BALANCE 160
COLOR MODE 164
LENS OPTICS COMPENSATION 168
MANUAL LENS SETTINGS 169
Bracketing 172
EXPOSURE BKT 173
FOCUS BKT 174
WHITE BALANCE BKT 175
CUSTOM MODE 177
SAVING AND LOADING SETTINGS 180
BUTTON LOCK FUNCTION 184
USING THE EXTERNAL FLASH 185
PRECAUTIONS FOR FLASH PHOTOGRAPHY 186
ATTACHING THE FLASH 187

TTL AUTO SHOOTING 187
FLASH EXPOSURE COMPENSATION..... 188
FLASH MODE SETTING..... 189
WIRELESS FLASH PHOTOGRAPHY 191
CHANGING OTHER SETTINGS 194
COLOR SPACE..... 194
LENS FUNCTION SETTINGS..... 195
SHUTTER BLACKOUT 196
DESQUEEZE 196
FRAME GUIDE 197
DIAL SETTINGS..... 201
CUSTOM BUTTONS FUNCTIONS 203
SHUTTER BUTTON SETTINGS 204

REVIEWING AND DELETING IMAGES 206
PLAYING STILL IMAGE..... 207
SINGLE CAPTURE 207
MAGNIFIED VIEWING)..... 210
VIEWING NINE IMAGES AT A TIME (CONTACT SHEET VIEW)..... 211
DISPLAY BY DATE..... 212
VIEWING IMAGE INFORMATION..... 213
PLAYING BACK A MOVIE 217
CUTTING OUT A PHOTO FROM A MOVIE..... 219
DELETING FILES..... 220
DELETE FILES FROM THE DELETE MENU 221
OTHER REVIEWING FEATURES 223
FILTERING OPTIONS FOR DISPLAY..... 223
LOCK 224
MARK..... 226
ROTATE 228
DNG DEVELOPMENT 229
EXPOSURE WARNING 232
HORIZONTAL ALIGNMENT 232

AEL BUTTON FUNCTION 233

SYSTEM MENU 234
Memory Storage Format 234
MEMORY STORAGE 235
STORAGE FULL ACTION 236
FILE NAME / NUMBER 236
COPYRIGHT INFORMATION 241
TIME CODE 243
[Display] MODE SETTINGS 246
TOUCH OPERATION 250
SETTING IN REC 251
SOUND SETTINGS 252
TALLY LAMP SETTINGS 254
AJUST ELECTRONIC LEVEL 255
SENSOR REFRESH 255
LCD SETTINGS 256
POWER SETTINGS 257
HDMI MONITORING OUTPUT 258
HDMI OUTPUT 258
CABLE RELEASE SETTINGS 260
EVF SETTINGS 261
DATE / TIME / AREA 262
LANGUAGE / DISTANCE UNIT 264
INFORMATION 265
FIRMWARE UPDATE 265
SECURITY SETTINGS 266
MANAGE SETTINGS 268
USB CONNECTION 270
CONNECTING TO THE COMPUTER 271
USB CONNECTION SETTINGS 271
TRANSFERRING IMAGES TO A COMPUTER 272
USING THIS PRODUCT AS A WEB CAMERA 274

REFERENCE 275
SCREENSHOT FEATURE..... 275
OPTIONAL ACCESSORIES 277
TROUBLESHOOTING..... 279
SPECIFICATIONS..... 282

SAFETY PRECAUTIONS

To avoid causing damage or injury, please read this instruction manual carefully, before using the camera. Please take special note of the following two cautionary symbols.

⚠ **Warning !!**

Using the product and disregarding this warning sign may cause serious injury or other dangerous results.

⚠ **Caution !!**

Using the product disregarding this caution sign may cause injury or damage.

⚠ This symbol denotes a warning or point, where caution is required.

⃠ This Symbol contains information regarding the actions that must be avoided.

⚠ WARNING (CAMERA)

⃠ Do not disassemble or modify the camera. This may cause electric shock or burns.

⚠ Do not use in areas with flammable gas. This may cause fire or explosion.

⚠ Keep out of reach of children. The strap poses a strangulation hazard.

⚠ Do not touch internal parts if the camera is damaged or dropped. This may cause electric shock or burns. Remove the battery and contact your retailer or an authorized service center.

⃠ Do not look at the sun through the lens. This can cause blindness.

⚠ If water enters the camera, remove the battery immediately and contact your retailer or an authorized

service center to prevent fire or electric shock.

Do not insert metal objects into the connectors. This may cause electric shock, overheating, or fire.

⚠ CAUTION (CAMERA)

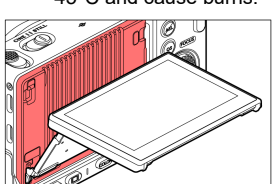
Do not leave the camera with the lens cap off. Direct sunlight on the lens may cause camera malfunction or fire.

Do not touch the camera with wet hands. This may cause electric shock.

Do not leave the camera in high-temperature environments (e.g., inside a car). It may cause malfunction or burns.

If the LCD monitor breaks, handle glass shards with care to avoid injury. Avoid contact with the liquid inside the monitor; do not get it in your eyes or mouth.

Heat Hazard: Do not touch the heatsink on the back of the LCD display during video recording. It may exceed 45°C and cause burns.



⚠ WARNING (SUPPLIED BATTERY)

Failure to follow the warnings, cautions, and prohibitions may result in explosion, leakage, or fire.


Never disassemble or modify the battery.


Do not short-circuit the contacts with metal objects.


Do not dispose of the battery in fire.


Do not subject the battery to strong impacts or vibrations.


Stop use immediately if you notice abnormal noise, odor, leakage, overheating, smoke, deformation, or damage.

⚠ CAUTION (SUPPLIED BATTERY)


Use only with specified devices (Sigma FP2).


Charge only via the Sigma FP2 camera body or the dedicated BC-91 battery charger (sold separately).


Store in a cool, dry place. Do not expose to rain or moisture.


Avoid extreme environments. Do not charge, use, or leave the battery in direct sunlight, high temperatures, or extremely low temperature/pressure environments.


Keep out of reach of children.


Do not allow children to replace the battery; it must always be done under adult supervision.


Emergency Procedure: If the camera or battery emits abnormal noise, odor, smoke, or leaks, carefully remove

the battery to avoid burns and contact your retailer or an authorized service center.

⚠ Disposal: Fully discharge the battery, insulate the contacts with tape, and dispose of it according to local regulations.

⚠ Long-term Storage: Remove the battery from the camera when not in use for an extended period to prevent leakage damage.

⚠ First Aid: If battery fluid contacts your eyes, mouth, skin, or clothing, rinse immediately with clean water and seek medical attention.

⚠ WARNING (BUILT-IN BATTERY)

⚠ WARNING

- **INGESTION HAZARD**: This product contains a button cell or coin battery.
- **DEATH** or serious injury can occur if ingested.
- A swallowed button cell or coin battery can cause Internal Chemical Burns in as little as 2 hours.
- **KEEP** new and used batteries OUT OF REACH of CHILDREN
- **Seek immediate medical attention** if a battery is suspected to be swallowed or inserted inside any part of the body.



Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate.

Even used batteries may cause severe injury or death.

Call a local poison control center for treatment information.

Do not force discharge, recharge, disassemble, heat above (manufacturer's specified temperature rating) or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.

Product contains an non-replaceable battery.
Battery type: Seiko Instruments Inc. MS621T
Nominal voltage: 3.0V
Nominal capacity: 9.0mWh

PRECAUTIONS FOR HANDLING

Before use

Before taking important photos, be sure to check and take test photos in advance to make sure that the camera is working properly. We cannot compensate for expenses incurred when shooting or any loss of profits that could have been gained from shooting.

We recommend bringing multiple fully charged batteries when traveling for extended periods, shooting outdoors, shooting in cold environments, shooting movies, or taking a large number of photos.

OPERATING ENVIRONMENT AND PRECAUTIONS

- The camera is a precision instrument. Do not bump or drop it.
- This camera is dust-proof and splash-proof so it can be used in light rain, however, it is not waterproof. When using this camera near water, be careful to avoid excessive exposure to water. If water gets inside the camera, it may cause serious damage and become irreparable.
- Do not leave the camera in a dusty or hot and humid location (especially inside a car during the day) for long periods of time.
- When taking the camera from a cold location into a warm room, water droplets may form on the camera. Place the camera in a plastic or other type of bag and adjust to the surrounding temperature before using it.

- This camera has an operating temperature range of approximately 0°C to +40°C (32°F to 104°F) and an operating humidity range of approximately 85% or less (no condensation). Battery performance decreases when used in low-temperature environments below 0°C. In cold locations, it is recommended to prepare a spare battery and keep it warm in a pocket or similar place, alternating between batteries as you use them.
- The camera may occasionally stop working due to a static electricity and magnetic fields. In such a case, remove the battery and reinsert it. The camera may not function properly in locations containing strong radio waves or magnetic fields.

PRECAUTIONS FOR LONG-TERM SHOOTING

- The surface of the camera may become hot, however, this is not a malfunction.
- If you shoot a movie or take continuous pictures for long periods of time, it may cause the sensor to heat up and subsequently reduce image quality. If a warning mark ( ) is displayed in the header, you should change the shutter speed and ISO settings so that the warning mark disappears, or turn off the camera and wait for the temperature to drop before shooting again.
- When the camera temperature rises, the warning mark ( ) is displayed. If the temperature rises further, a message is displayed and the camera turns off. To allow the temperature to drop sufficiently, leave the camera for at least 10 minutes.
- When using USB storage such as an SSD to shoot a movie for a long time, the USB storage may become hot and movie recording may stop.

ABOUT THE LCD MONITOR

- The LCD monitor may have some pixels that are always turned on or always turned off due to its characteristics, however, this is not a malfunction. This does not affect the recorded data. Please note the above.
- Due to the characteristics of the LCD, the display response may be slower in low temperatures. Also, the display may turn black at high temperatures, but will return to normal if it reaches room temperature.

SD MEMORY CARDS (OPTIONAL)

This product supports the following memory cards that comply with the SD standards.

SDXC memory card



- In this manual, memory cards are referred to as "cards" or "SD cards."
- This product supports UHS-I and UHS-II standard SDXC memory cards.
- SD cards have a write protection switch, which prevents the card from being accidentally written to or formatted. Moving the switch to the 'LOCK' position prevents accidental erasure of files.
- Do not leave the card in direct sunlight or near a heating device.
- Avoid storing cards in environments of high temperature and humidity or where static electricity or electromagnetic fields may be generated.
- For proper usage of the card, please refer to their instruction manuals.

- The “Delete” feature of the Camera and PC may not delete the data in the memory card completely. Some data might still remain. If you wish to remove all data from card securely, please use third party software.

ABOUT THE LENSES

This product uses the L-Mount. Your camera can use interchangeable lenses for L-Mount.

- The Sigma FP2 has a 35mm full-frame image sensor. In order to take full advantage of the capability of the image sensor, it is recommended that L-Mount lenses are used for full size format. You can use lenses for APS-C format in DC Crop mode, which limits the recording area of the image sensor for APS-C size.
- Sigma MC-21 Mount Converter (optional) allows you to use Sigma SA mount interchangeable lenses or Sigma interchangeable lenses for Canon EF mount.
- Depending on the release date of the lens, updating the lens firmware may be required. It may also be necessary to update the camera firmware. Please check our website for the latest information about the corresponding lens.
  sigma-global.com/en/
- Using third-party products that do not comply with the L-Mount standard may cause a malfunction. Please note that accidents or failures resulting from the use of such products are not covered by the warranty.

ELECTRONIC SHUTTER

This product is not equipped with a mechanical shutter mechanism. It uses an electronic shutter that electrically controls the image sensor to adjust the exposure time.
The electronic shutter has advantages of being silent and having no vibrations, and enables faster continuous shooting. However, the electronic shutter has disadvantages, so be sure to note the following points.

- Because flicker from fluorescent lighting or LED illumination can easily cause uneven exposure, use a relatively slow shutter speed or use the flicker reduction function.
- The flash sync speed will be 1/50 of a second or slower (1/60 of a second or slower in DC crop mode).
- When shooting a fast-moving subject, distortion may occur.

CARE INSTRUCTIONS

- When cleaning the body or lens, never use organic solvents such as thinner or benzene as they will damage the surface finish. Gently wipe the body and lens barrel using a soft, clean cloth. Gently blow any dust off the lens surface using a commercially available blower. If fingerprints or other marks are left on the lens, carefully wipe them off using a commercially available lens cleaner.
- If dust or debris has adhered to the LCD monitor, blow it off using a commercially available blower. If the monitor is very dirty, wipe it gently using a soft, clean cloth.

CLEANING THE DUST PROTECTOR

Blow away any dust on the dust protector (image sensor protection glass) using a blower. If there are any fingerprints on the glass of the dust protector, first blow away any dust using a blower, then gently wipe it using a soft, clean cloth. If any stubborn stains or dust remains, contact our service station for cleaning services.

WARNING

- Do not use an aerosol compressed air cleaner. Liquid squirts depending on the injection angle, which may damage the dust protector.
- Please do not use the blower with a brush. If a brush is attached, it may scratch the dust protector.

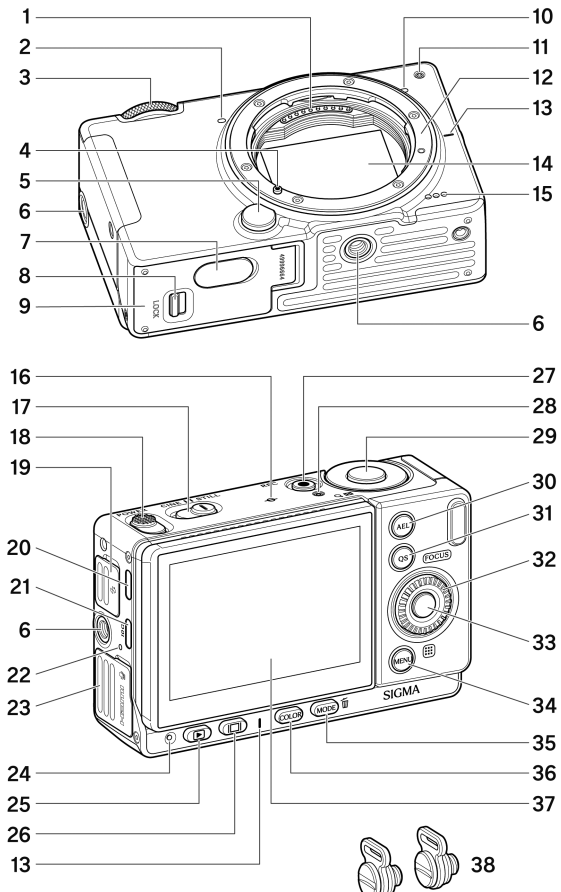
STORAGE

- If you will not be using the camera for a long period of time, remove the battery to prevent the camera from being damaged due to leakage of battery acid.
- To prevent the formation of mold and rust, store the camera in a dry, well-ventilated location. Storing the camera in a plastic bag with a desiccant is also an effective method. However, desiccants have an expiration date, so be sure to replace them in a timely manner. Do not store the camera with mothballs or other insect repellents, as they can adversely affect the camera.

BATTERY STORAGE

- For storage, avoid extremely low or high temperatures as well as high humidity. Storing the battery in a dry environment at approximately 20 °C ± 5 °C (68 °F ± 9 °F) is recommended.
- When storing the battery for a long period, charge it once a year. Avoid fully charging the battery; instead, charge it to about 50%.
- For a battery that has been stored for a long period, fully charging and discharging it several times will effectively restore its maximum performance.

DESCRIPTION OF THE PARTS



1	Lens Signal Contacts
2	Microphone (Right)
3	Front Dial
4	Lens Mount Index / Lens Lock Pin
5	Lens Lock Button
6	Tripod / Strap Holder Sockets
7	DC Connector Cover
8	Battery / Card Cover Lock
9	Battery / Card Cover
10	Microphone (Left)
11	Tally Lamp
12	Lens Mount
13	Position Index for Tripod Socket
14	Image Sensor / Dust Protector
15	Speaker
16	Focal Plane Mark
17	CINE / STILL Switch
18	Power Switch
19	HU-21 Contacts
20	USB port 1 (top)
21	USB port 2 (bottom)
22	Charge lamp
23	HDMI Terminal (Type A (Version 2.1)) Microphone / Cable Release Terminal
24	Busy Lamp
25	▶ (Playback) Button
26	DISP (Display) Button
27	REC Button
28	REC Lamp
29	Shutter Button
30	AEL Button
31	Q.S (Quick Set) Button
32	Rear Dial
33	⦿ (Center) Button

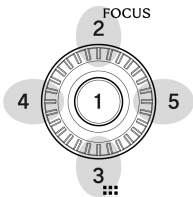
34	MENU (Menu) Button
35	MODE (Shooting Mode) / 🗑 (Delete) Button
36	COLOR (Color Mode) Button
37	LCD Monitor / Touch Panel
38	Strap Holders

CAUTION

- Be careful not to touch the dust protector (image sensor protective glass)(**14**).

ABOUT REAR DIAL (32)

The Rear Dial also serves as a direction button. This manual shows each position using ∧, ∨, 〈 and 〉



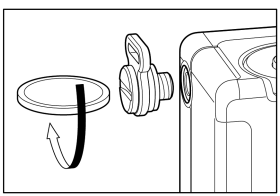
1. ⦿ (Center) button
2. ∧ (Up) button (FOCUS button)
3. ∨ (Down) button (⠿ button)
4. 〈 (Left) button
5. 〉 (Right) button

- The up and down operations are indicated by ⇕, the left and right operations by 〈〉, and the up, down, left, and right operations by ⇕〈〉.

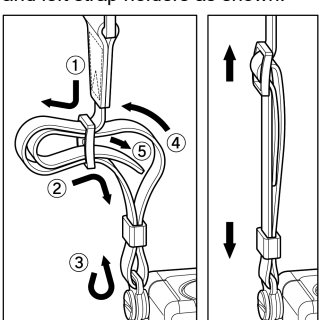
PREPARATION

ATTACHING THE CARRY STRAP

Using a coin, attach the supplied strap holders securely to the tripod/strap holder sockets on both sides of the camera.



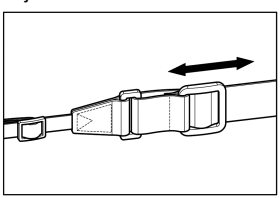
Undo both ends of the supplied strap and attach it to the right and left strap holders as shown.



WARNING

- Before taking a picture, make sure the strap holders are firmly screwed into the sockets. If either or both of the strap holders come loose, the camera may fall during use. If either of them do come loose, firmly tighten it using a coin or similar object.

You can adjust the strap length by moving the left and right adjusters.



TO CHARGE THE BATTERY

Insert the included dedicated lithium-ion rechargeable battery "Li-ion Battery Pack BP-91" (hereafter referred to as the battery) into the camera, and charge it using a commercially available USB AC adapter or computer. The battery is not charged when purchased. Please charge it before use.

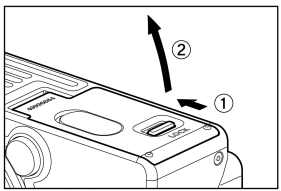
WARNING

- Always use the Li-ion Battery Pack BP-91. Using other batteries may cause the camera or lens to malfunction. Please note that any accidents or malfunctions resulting from the use of other batteries are not covered by the warranty.

- This camera supports USB PD (USB Power Delivery). Use a USB AC adapter that supports an output of PD 27W or higher.
- When charging via a computer, ensure that the USB Type-C port supports USB PD 27W or higher.
- Use a cable that supports USB 3.2 or higher, features Type-C to Type-C connectors, and supports USB PD 27W or higher.
- Charging may not be possible if a power source or cable that does not meet the above specifications is used.
- Do not use an extension cable. Using an extension cable may result in a reduction of the charging speed or disable charging.

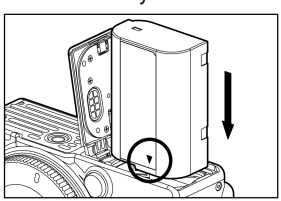
1

Ensure that the power switch is set to **OFF**, slide the battery/SD cover lock, and open the battery/SD cover.



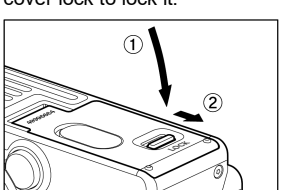
2

Push the battery in until it locks into place.



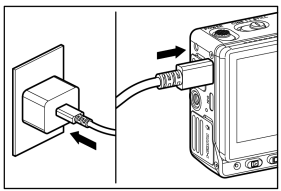
3

While holding the battery/SD cover closed, slide the battery/SD cover lock to lock it.

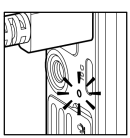


4

Connect the camera to a USB AC adapter or computer using a USB Type-C cable to charge it.



- The camera's charge lamp (green) lights up during charging.



- Charging takes approximately two hours when using a USB AC adapter that supports PD 27W or higher.
- The charging time varies significantly depending on the specifications of the adapter or computer and the operating status of the camera.

5

When the charge lamp goes out, charging is complete.

CAUTION

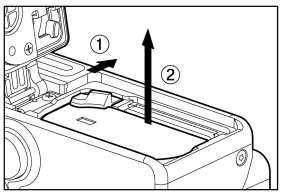
- If the number of images that can be taken on a single charge is significantly reduced, the battery is reaching the end of its lifespan. Replace it with a new one.
- Charge the battery in a location where the temperature is between 10°C and 40°C.
- When connecting to a computer, be sure to use a USB port on the computer itself. Do not connect it to the USB port of a monitor, keyboard, or USB hub.
- If the computer enters Sleep mode during charging, charging may be stopped.

Powering the camera

When the battery is connected to a USB AC adapter or computer, power is supplied to the camera at the same time as it charges, allowing you to operate the camera. (Keep the battery in the camera.)

How to remove the battery

Slide the battery compartment cover latch and remove the battery.



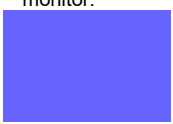
WARNING

- Do not remove the battery or memory card while the access lamp is on or flashing. Otherwise, the written data will be lost. This could also damage the camera and/or memory card.

ABOUT THE EXTERNAL POWER SUPPLY

If no USB ports are available due to connections with other devices, you can supply power from an external source using the optional DC connector CN-91 (P.XXX).

- When powering the camera via the DC connector CN-91, the following icon is displayed in the top-left corner of the LCD monitor.



- For details on connection procedures and other information, refer to the instruction manual for the DC connector CN-91.

WARNING

- Be sure to use the DC connector CN-91. Using other DC connectors may cause malfunctions in the camera or lens. Please note that any accidents or malfunctions resulting from the use of other batteries are not covered by the warranty.

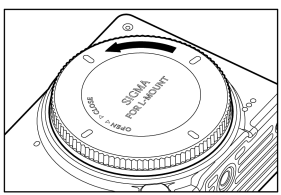
MOUNTING AND REMOVING THE LENS

1

Turn the power switch to OFF.

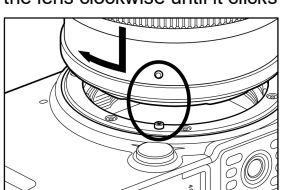
2

Remove the lens's rear cap and the camera's body cap.



3

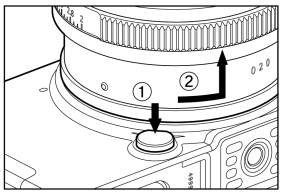
Align the lens mount index on the camera with the index on the lens. Insert the lens into the mount of the camera and rotate the lens clockwise until it clicks into the locked position.



CAUTION

- To ensure the lens fits correctly, do not press the lens lock button while attaching the lens. Make sure that the lens is locked in place.

To remove the lens, press the lens lock button and turn the lens counter-clockwise until it stops. Gently remove the lens from the camera body.

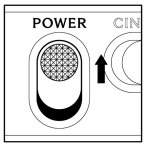


CAUTION

- On the mount surface of the lens, there are a number of electrical contacts. Scratches or dirt may cause the camera to malfunction.

CONFIGURING THE INITIAL SETTINGS

When you turn the camera on for the first time after purchasing it, configure the initial camera settings.



Setting the language

Use the ‹^› button to select your desired language, and press the ⦿ button.

Setting the distance unit

Use the ^ button to select M (meters) or FEET, then press the ⦿ button.

Setting the security lock

- Press the |□| button to proceed with the initial setup without setting the security lock. Configure the security lock later.

Use the ^ button to select either [**Lock with Passcode**] or [**Lock with Pattern**], then press the ⦿ button.

When [**Lock with Passcode**] is selected

1. Enter any 6-digit number.
2. Enter the digits in the same order on the Confirmation screen.
3. Press the ⦿ button.

When [**Lock with Pattern**] is selected

1. Press the ◈ button six times using any pattern.
2. On the Confirmation screen, press the button six times using the same pattern.
3. Press the ◉ button.

Setting the time zone

Use the ◈ button to select the area you want to use, then press the ◉ button.

Setting the date/time

Press the ◉ button, use the ◈ button to set the date and time, then press the ◉ button.

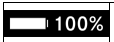
- Set [**Summer Time**], [**Date Format**] and [**24-Hour Time**] as necessary.

Select [**OK**] and press the ◉ button to complete the initial settings.

- The items set on the Initial Settings screen can be changed later in each item in the [**System Menu**].

CHECKING THE BATTERY POWER LEVEL

The battery level icon is displayed in the top-left corner of the LCD monitor. Make sure to always check the battery icon before and while using the camera.

	Fully charged.
	The battery power level is low, and the camera will soon stop working. Charge or replace the battery.
	The battery power level is low, and the camera will soon stop working. Charge or replace the battery.
	Charging or power supplied

CAUTION

- When a USB storage such as an SSD is attached, the rate of battery consumption increases, and the battery power level display changes.

ABOUT TOUCH OPERATIONS

You can operate some of the functions on the touch panel.

The touch operations are described below:

Tap	Touch lightly with your finger and then raise your finger.
Drag	Touch and then move your finger while still touching.
Flick	Touch and move your finger rapidly while still touching.
Pinch Out	Touch with two fingers and then move fingers further apart.
Pinch In	Touch with two fingers and then move fingers closer together.

- For details on touch panel settings, refer to [TOUCH OPERATION] (P.XXX).

ABOUT CINE/STILL SWITCH

This camera can shoot still images and movies. Depending on the position of the CINE/STILL switch, the FP2 can be used as a camera dedicated for shooting both still images and movies.

To shoot still images, select STILL (STILL mode). To shoot movies, select CINE (CINE mode).



CAMERA SET-UP MENU

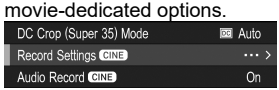
This section describes the various settings in the Camera Set-up menu. You can set detailed functions and basic camera settings from the Camera Set-up Menu screen.

- Available menu items in the Set-up menu vary depending on the position of the CINE/STILL switch.

The "**STILL**" icon is displayed for still-image dedicated items, still-image dedicated options, and items containing still-image dedicated options.



The "**CINE**" icon is displayed for movie-dedicated items, movie-dedicated options, and items containing movie-dedicated options.



- In this manual, "(STILL)" is provided for still-dedicated items or options, and "(CINE)" for the movie-dedicated items or options.
- There are items that can be set separately for "**STILL**" and "**CINE**" even though they are the same. (In this manual, items that are able to be independently set are indicated by "**(CINE/STILL)**".) Select your desired mode by using the CINE/STILL switch before setting detailed functions and basic camera settings.

Opening the Set-up menu

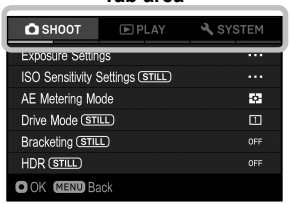
Press the MENU button on the back of the camera.

Press the MENU button again to close the Set-up menu.

Moving to another tab

Each time the Front Dial is turned, the screen moves to the next tab.
(When the tab area is selected, it is possible to change the setting menu by pressing the ‹› buttons as well.)

Tab area

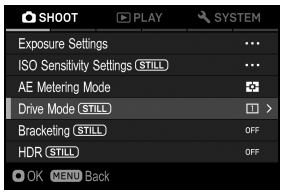


While in the Set-up Menu:

Use the ⌃⌄ buttons or the Rear Dial to select the desired item.

Use the › button or the ⦿ button to open a sub menu.

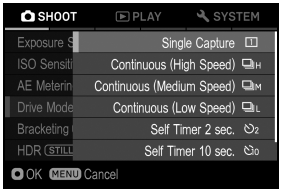
Depending on the item, a menu screen, a confirmation dialog or second-level items may be displayed.



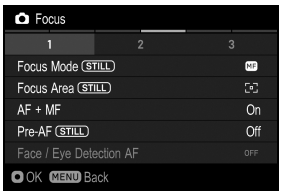
While in the sub-menus:

Use the ⌃⌄ buttons or the Rear Dial to select the desired option.

Press the › or ⦿ button to apply the setting.
(Press the ‹ or MENU button to close sub-menus without changes being applied.)



The second-level items may be further divided into pages. Use the ‹› buttons or the Front Dial to move to other tabs. To exit the tab, press the MENU button.



The Camera Set-up menu is divided into three groups.

/ SHOOT (CAPTURE SETTINGS) (Blue Tab)

Set the shooting function. Press the MENU button during the shooting mode to open the [**SHOOT**] menu when the CINE/STILL switch is set to the [**STILL**] position, and to open the [**SHOOT**] menu when the CINE/STILL switch is set to the [**CINE**] position.



PLAY (PLAYBACK) (Red Tab)

Set the playback function. Press the MENU button during Playback mode to open the [**PLAY**] menu.



SYSTEM (CAMERA SETTINGS) (Yellow Tab)

Configure the basic settings of the camera. Press the MENU button to open the Camera Set-up menu, and turn the Front Dial or the Rear Dial to move to the [**SYSTEM**] menu.



TIP

- Depending on the camera settings, some menu items and setting options cannot be selected. They will be grayed out.
- If you press the ❯ button or the ⦿ button on a grayed-out item or option under [**SHOOT**], a list of reasons why the setting cannot be selected is displayed. Please review your camera settings based on the information displayed.

LIST OF MENU FUNCTIONS

For more information about each menu item, refer to the appropriate pages.

* **C** = CINE mode, **S** = STILL mode

/ SHOOT(1)

Menu Item	Second-level Menu Item	C	S	Page
Shooting Mode	-	○	○	
Shutter Settings	Shutter Speed	○	○	
	Shutter Angle	○	–	
	Shutter Mode	○	–	
	Slowest Shutter Speed Limit	–	○	
	Maximum Shutter Angle	○	–	
	Variable Shutter	○		
	Flicker Detection	○		
Aperture	-	–	○	
Aperture Settings	Aperture	○	–	
	Aperture Display	○	–	
Exposure Compensation	-	○	○	
ISO Sensitivity Settings	ISO Sensitivity	○	○	
	ISO Sensitivity Step	○		
	Low ISO Expansion	–	○	
	Log/RAW ISO Expansion	○	–	
	ISO Auto Range	○	○	
AE Metering Mode	-	○		

SHOOT(2)

Menu Item	Second-level Menu Item	C	S	Page
Drive Mode	-	–	○	
Bracketing	Exposure BKT	–	○	
	Focus BKT	–	○	
	White Balance BKT	–	○	
DC Crop Mode (Super 35)	-	○		
Image Quality	-	–	○	
Aspect Ratio	-	–	○	
Record Settings	Format	○	–	
	Resolution	○	–	
	Frame Rate	○	–	
Audio Record	-	○	–	

SHOOT(3)

Menu Item	Second-level Menu Item	C	S	Page
Color Mode	-	○	○	
Color Space	-	–	○	
Log Gamma Auto Review *1	-	○	–	
White Balance *2	-	○		
Filter Effect *3	-	○		
Lens Optics Compensation	Diffraction	○		
	Vignetting	○		
	Focus Breathing	○	–	
	Color Shading	○		

*1 Not displayed when the format is set to H.264 or H.265.
*2 Not displayed when Color Mode is set to MONO.
*3 Not displayed except when Color Mode is set to MONO.

/ SHOOT(4)

Menu Item	Second-level Menu Item	C	S	Page
Focus 1	Focus Mode	○	○	
	Focus Area	○	○	
	Subject Tracking	○		
	AF Tracking Retention	○	○	
	AF Transition Speed	○	–	
Focus 2	AF+MF	○		
	AF-S Auto Review	○		
	MF Auto Review	○		
	Distance Scale Direction	○	○	
	Focus Peaking	○		
Focus 3	AF during Image Mag.	○		
	Prioritize Focus / Release	–	○	
	Focus Limiter	○		
	Focus Ring Control	○		
	Focus Function Assignment	○		
Stabilization	Lens Optical Stabilization	○		
	Electronic Stabilization	○	–	
	Gyro Data Output	○	–	
Lens Function Settings	Focus Mode	○		
	Focus Limiter	○		
	Focus Ring Control	○		
	Optical Stabilization	○		
	AFL Button Functions	○		
Manual Lens Settings	-	○		

SHOOT(4)

Menu Item	Second-level Menu Item	C	S	Page
Flash	Flash Exposure Compensation	–	○	
	Red-eye	–	○	
	Rear Curtain Sync.	–	○	
	Slow Sync.	–	○	
	AF Assist Light	–	○	
	Optical Wireless	–	○	

SHOOT(5)

Menu Item	Second-level Menu Item	C	S	Page
Shutter Blackout		–	○	
Quick Preview		–	○	
Live View Settings	Outer Frame	–	○	
	Preview Exposure	–	○	
Frame Guide	–	○	–	
Director's Viewfinder	–	○	–	
Desqueeze	–	○		
Brightness Level Monitor	–	○	○	
Zebra Pattern	Zebra 1	○		
	Zebra 2	○		

/SHOOT(6)

Menu Item	Second-level Menu Item	C	S	Page
Dial Settings	Dial Functions	○		45
	Dial Rotation	○		
	Disable Dial Functions	○	–	
Custom Buttons Functions	-	○		
Shutter Button Settings	Shutter Button Functions	○	–	
	Half-pressed AEL	–	○	
	Half-pressed AF-ON	○		
REC Button Functions	-	–	○	

PLAY(1)

Menu Item	Second-level Menu Item	C	S	Page
Filtering Options for Display	-	○		
Playback Sound Settings	Playback Volume	○		
	Multi-Ch. Output Settings	○		
Lock	-	○		
Mark	-	○		
Rotate	-	○		
Delete	-	○		

PLAY(2)

Menu Item	Second-level Menu Item	C	S	Page
DNG Development	-	○		
Exposure Warning	-	○		
Horizontal Alignment	-	○		
AEL Button Function	-	○		

SYSTEM(1)

Menu Item	Second-level Menu Item	C	S	Page
Memory Storage Format	-	○		
Memory Storage	-	○		
Storage Full Action	-	–	○	
File Name / Number	-	○	○	
Copyright Information	-	○		
Time Code	-	○	–	

SYSTEM(2)

Menu Item	Second-level Menu Item	C	S	Page
Custom Mode Setting	–	○		
Custom QS	–	○	○	
Mode Settings	–	○	○	
Touch Operation	–	○		
Setting in REC	–	○	–	
Operation in Button Lock Mode	–	○		

SYSTEM(3)

Menu Item	Second-level Menu Item	C	S	Page
Sound Settings	-	○	○	
Tally Lamp Settings	-	○	○	
Adjust Electronic Level	-	○		
Sensor Refresh	-	○		
LCD Settings	-	○		
Power Settings	Sleep Timer	○		
	Power Off Timer	○		

SYSTEM(4)

Menu Item	Second-level Menu Item	C	S	Page
HDMI Output		–	○	
HDMI Output	Monitoring Output	○	–	
	Recorded Image Output	○	–	
USB Mode		○		
Cable Release Settings		–	○	
EVF Settings		○		

SYSTEM(5)

Menu Item	Second-level Menu Item	C	S	Page
Date / Time / Area	-	○		
Language / 言語	-	○		
Information	-	○		
Firmware Update	-	○		
Security Settings	-	○		
Settings Management	Save Settings	○		
	Load Settings	○		
	Reset Settings	○		

QUICK SET MENU

The following most frequently used menu items can be easily set by pressing the QS button.

STILL Mode



1. ISO Sensitivity (P. XX)
2. AE Metering Mode (P. XX)
3. Drive Mode (P. XX)
4. White Balance (P. XX)
5. Image Quality (P. XX)
6. Aspect Ratio (P. XX)
7. Subject Tracking (P. XX)
8. Focus Peaking (P. XX)

CINE Mode



1. Format (P. XX)
2. Resolution (P. XX)
3. Frame Rate (P. XX)
4. Subject Tracking (P. XX)
5. Shutter Angle (P. XX)
6. Aperture (P. XX)
7. ISO Sensitivity (P. XX)
8. White Balance (P. XX)

For example, to change the image quality to DNG

1

Press the QS button to display the QS Menu.

2

Press the ◇ buttons to select the item related to image quality (▦). (Image quality options are displayed at the bottom of the screen.)



3

Turn the Front Dial or the Rear Dial to display [**DNG**].

4

Press the ⦿ button or half-press the shutter button to return to the shooting screen.

TIP

- It may be possible to make more detailed settings depending on items or options. In such a case, "AEL XXX" is displayed. Press the AEL button to configure the desired settings as needed.

CAUTION

- Items that you cannot set are grayed out, and the options cannot be changed by rotating the dials.

You can change the items to be allocated to the Quick Set menu.

- The items can be changed in each mode depending on the CINE/STILL switch position.

[**SYSTEM**] → [**Custom QS**]



1

Press the ◇ buttons on the [**Custom QS**] screen to select the position you want to reallocate, and press the ⦿ button to apply the setting.

2

From the list at the bottom of the screen, select the items you want to allocate by pressing the ◇ buttons, and press the ⦿ button to confirm your selection.

Press the MODE button to reset to the initial settings.

3

When you have finished setting the allocation, press the MENU button to close the [**Custom QS**] screen.

CHANGING THE DISPLAY MODE

LCD Monitor Display can be changed by pressing the |▭| button.

STILL Mode



Custom 1



Custom 2



Custom 3



Custom 4

CINE Mode



Custom 1



Custom 2



Custom 3



Custom 4

- Refer to "**MONITOR DISPLAY DURING SHOOTING**" on page XX for the meaning of each icon.
- You can customize the displayed contents, change the number of pages, and configure the LCD Off Mode (P.XXX).

SELECTING THE MEMORY STORAGE

For this camera, you can select the destination for saving captured images from an SD Card, USB Storage (commercially available), or Internal Storage.

[**SYSTEM**] → [**Memory Storage**]

	Internal Storage
	SD Card
	USB Storage

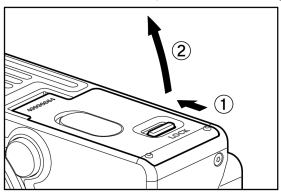
TIP

- If the storage specified as the recording destination (SD Card or USB Storage) is not available, press the AEL button to change the recording destination to Internal Storage.
- In STILL mode, if you set "Storage Full Action" to "On", when the SD Card or USB Storage becomes full, the recording destination will automatically switch to Internal Storage (P.XXX).

TO INSERT THE CARD

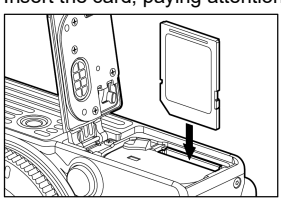
1

Ensure that the power switch is set to OFF, slide the battery/SD cover lock, and open the battery/SD cover.



2

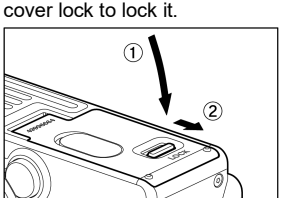
Insert the card, paying attention to the orientation.



- Insert the card until it clicks.

3

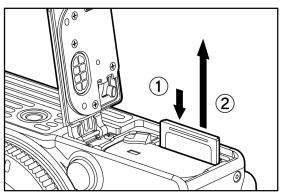
While holding the battery/SD cover closed, slide the battery/SD cover lock to lock it.



- When using the card for the first time, initialize it using this device. (P.XXX)

How to remove the card

Push the card in until it clicks and then pull it out straight.



WARNING

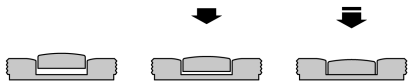
- Do not remove the battery or memory card while the access lamp is on or flashing. Otherwise, the written data will be lost. This could also damage the camera and/or memory card.

TIP

- Even after turning off the power, the access lamp will remain lit or flashing until card access is complete, and the camera will not turn off until then.

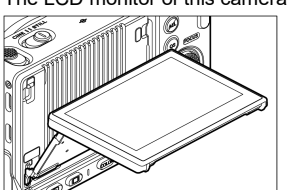
HOW TO PRESS THE SHUTTER BUTTON

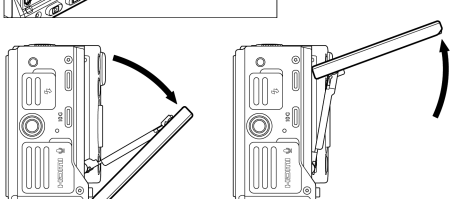
The exposure and focus functions are activated at a position where you press the shutter button lightly to stop (half-press). Press it further (full-press) to take the picture.



ADJUSTING THE LCD MONITOR ANGLE

The LCD monitor of this camera can be adjusted vertically.





CAUTION

- Do not apply excessive force to the movable parts.
- Close the LCD monitor when carrying the camera.

QUICK PREVIEW

You can change the display duration of the image after shooting.

[**SHOOT**] → [**Quick Preview**]

Off (Default) (Captured images are not displayed.)		
2 sec.	**5 sec.**	**10 sec.**

CAUTION

- It will not be possible to zoom in to the preview image, or change to another image while the Quick Preview is up.

DOING THE SHOOTING

TAKING A PICTURE

The general procedure to follow to take a picture is as follows.

Set the CINE/STILL switch to [STILL].

Set the image quality. (P.XX)

Set the ISO sensitivity. (P.XX)

Determine the exposure. (P.XX)

Focus the camera. (P.XX)

Hold-down the shutter button to take a picture.

- For information about other settings, refer to the appropriate pages.

SHOOTING A MOVIE

The general procedure to shoot a movie is as follows.

Set the CINE/STILL switch to [CINE].

Configure movie record settings such as the record format, resolution, and frame rate. (P.XX)

Set the ISO sensitivity. (P.XX)

Determine the exposure. (P.XX)

Focus the camera. (P.XX)

Press the shutter button or REC button to start shooting.

Press the shutter button or REC button to stop shooting.

- For information about other settings, refer to the appropriate pages.

CAUTION

- The **REC** button does not activate AF mode. Unless Constant AF (P.XX) is set to [**On**], half-press the shutter button to activate AF mode.
- The maximum length of time a movie can be recorded using a single shooting operation is two hours even if there is sufficient free space on the storage for a longer period.

TIP

You can shoot a movie using the REC button even in STILL mode.

- Set the **REC** Button Functions to [**REC**].

[**SHOOT**] → [**REC Button Functions**] → [**REC**]

- A movie is recorded based on the setting described in [Record Settings] (P.XXX) of the Set-up menu.

CAUTION

- The explanations in this section are based on the assumption that [**Dial Settings**] in [/ **SHOOT**] menu is in its default setting. If the actual operating procedure differs from the description in this section, refer to [**Dial Settings**] on page XXX.

When you are using an L-mount lens with an aperture ring:

In Aperture Priority AE or Manual Exposure mode, you can set the aperture value using the aperture ring of the lens. If you want to select an aperture value using the camera menu or dial, set the aperture ring to position A.

SHUTTER ANGLE (CINE MODE)

For the cinema camera, the shutter angle (angle) is generally used as the unit of exposure time in the shutter. For example, "360°" means that an exposure time of 100% is applied for each frame, and "180°" means that an exposure time of 50% is applied for each frame. This camera allows you to select either speed or angle for the shutter display, whichever you are accustomed to using.

SELECTING THE EXPOSURE MODE

(CINE/STILL)

The features and the operation methods of the four different exposure modes of the camera are explained below.

M	**Manual Exposure**
S	**Shutter Speed Priority AE***
A	**Aperture Priority AE**
P	**Program AE** (Default)

* [**Shutter Angle Priority AE**] is displayed in CINE Mode.

1

Press the MODE button.

2

Select the desired exposure mode by using the Front and Rear Dials, or by pressing the ◇ buttons.

3

Press the ⊙ button or half-press the shutter button to apply the setting.

- This function can also be set by selecting [📷/🎥 **SHOOT**] → [**Shooting Mode**].

P PROGRAM AE

Use this mode for casual shooting. In the Program AE mode, the camera automatically selects an appropriate combination of shutter speed (Shutter Angle) and aperture values based on the brightness of the subject.

CAUTION

- If the (( )) mark is shown, it may cause the camera to shake because the shutter speed reduces. Increase the ISO sensitivity (see page XX) or use a tripod.
- If the subject is too bright or dark, both shutter speed and aperture value indicators flash. Decrease the ISO sensitivity (see page XX).

PROGRAM SHIFT *P

(STILL)

You can change the combination of shutter speed and aperture value selected by the camera while retaining the same exposure level. Adjust the shutter speed and aperture value using the Front Dial.

A APERTURE PRIORITY AE

Set the desired aperture. In the Program AE mode, the camera automatically selects the shutter speed (Shutter Angle) based on the brightness of the subject.

Turn the Front Dial to set the desired aperture.

- The aperture can also be set by selecting [**SHOOT**] → [**Aperture**].

CAUTION

- If the ((📷)) mark is shown, it may cause the camera to shake because the shutter speed reduces. Increase the ISO sensitivity (see page XX) or use a tripod.
- If the subject is too bright or dark, the shutter speed indicator flashes. Adjust the aperture until it stops flashing.

In CINE Mode

- To switch to **P** Mode, in the Quick Set menu, press the |□| button while selecting the aperture, and in the [**SHOOT**] menu, set the aperture value to [**Auto**].

- You can set the lowest shutter speed limit (Maximum Shutter Angle) and the shutter speed control tendency (faster, slower) controlled in **P** or **A** mode.

[/ SHOOT] → [**Shutter Settings**] → [**Slowest Shutter Speed Limit** (Maximum Shutter Angle)]

(CINE/STILL)
SLOWEST SHUTTER SPEED LIMIT

AUTO (SLOWER)	Set to a slower shutter speed than the standard by two levels.
AUTO (SLOW)	Set to a slower shutter speed than the standard by one level.
AUTO (Standard) (Default)	Set to approximately one second of the focal length of the lens (equivalent to 180° in CINE Mode).
AUTO (FAST)	Set to a faster shutter speed than the standard by one level.
AUTO (FASTER)	Set to a faster shutter speed than the standard by two levels.
1S to **1/ 25600** *2	Set to each shutter speed.

*2 In CINE Mode, the selectable shutter speed changes depending on the frame rate setting.

(CINE)
MAXIMUM SHUTTER ANGLE

AUTO (SLOWER)	Set the shutter angle two stops wider than the standard.
AUTO (SLOW)	Set the shutter angle one stop wider than the standard.
AUTO (Standard) (Default)	Basically set the shutter angle to 180°.
AUTO (FAST)	Set the shutter angle one stop narrower than the standard.
AUTO (FASTER)	Set the shutter angle two stops narrower than the standard.
1.1° to **360°** *3	Set to each shutter angle.

*3 The selectable shutter angle changes depending on the frame rate setting.

S SHUTTER SPEED (SHUTTER ANGLE) PRIORITY AE

Set the desired shutter speed (Shutter Angle). The camera automatically determines the aperture value based on the brightness of the subject.

Turn the Front Dial to set the desired shutter speed (Shutter Angle).

- The shutter speed can also be set by selecting [📷 /🎬 **SHOOT**] → [**Shutter Settings**] → [**Shutter Speed Limit** (Shutter Angle)].

CAUTION

- If the subject is too bright or dark, the aperture value indicator flashes. Adjust the shutter speed until it stops flashing.

In CINE Mode

- To switch to **P** Mode, in the Quick Set menu, press the button while selecting the shutter angle, and in the [🎬 **SHOOT**] menu, set the shutter angle (Shutter Speed) to [**Auto**].

M MANUAL EXPOSURE

Set both the shutter speed (Shutter Angle) and aperture value.

Set the aperture value using the Front Dial. Then, set the shutter speed (Shutter Angle) using the Rear Dial so that the numeric value of the exposure meter is set to "**0.0**".

- The exposure meter can display an exposure error of up to ± 5 stops from the correct exposure in 1/3 steps. If the exposure error is more than three stops, the exposure meter will flash.

CAUTION

- If the subject is too bright or too dark, the ISO indicator flashes. Adjust the shutter speed (angle) or aperture until the indicator stops flashing.

When the ISO Sensitivity (P. XX) is set to [ISO Auto]:

Images are taken using Auto Exposure in which the camera automatically sets the ISO sensitivity according to the brightness of the subject.

In CINE Mode

- In the Quick Set menu, to switch to **S** Mode, press the |□| button while selecting the aperture. To switch to **A** mode, press the |□| button while selecting the shutter angle.
- In the [**SHOOT**] menu, to switch to **S** mode, set the aperture value to [**Auto**]. To switch to **A** mode, set the shutter angle (speed) to [**Auto**].

ABOUT EXPOSURE PREVIEW OF LIVE VIEW IMAGE

(STILL)
If it is difficult to check focus or composition in dark scenes, such as when shooting at night or using flash in M mode, you can switch to a setting that adjusts the screen brightness for better visibility.

[**SHOOT**] → [**Live View Settings**] → [**Preview Exposure**]

Off	Brightness of the LCD Display is automatically adjusted for better visibility.
On (Default)	The selected exposure value is reflected in the LCD Display.

- Whether to turn [**Preview Exposure**] on or off can be assigned to a custom button (P.XX).

ABOUT FLICKER REDUCTION

This function reduces the effects of flicker, such as uneven exposure or striped patterns appearing in images under fluorescent or LED lighting.

- This function is effective in S and M modes, where you can manually set the shutter speed (or shutter angle).

VARIABLE SHUTTER

Allows you to finely adjust the shutter speed (or shutter angle) to match the flicker frequency.

1

Set the approximate desired shutter speed (or shutter angle).

2

Go to [/ **SHOOT**] → [**Shutter Settings**] → [**Variable Shutter**] → [**On**], and while checking the live view image, select the shutter speed (or shutter angle) that reduces flicker effects.

- When Variable Shutter is enabled, the denominator of the shutter speed is displayed as a decimal value. For the shutter angle, all angle values are displayed to two decimal places.

  Example: 1/250 → 1/256.0, 180° → 180.00°

- The available shutter speed range is 1/50.0s to 1/8192.0s, and the available shutter angle range is 360.00° to 10.00°.
- A difference may occur between the live view display and the captured image. After shooting, check the captured image to ensure flicker effects have been reduced.

FLICKER DETECTION

Detects the flicker frequency and automatically sets the shutter speed (shutter angle) to reduce flicker effects.

1

[/ **SHOOT**] → [**Shutter Settings**] → [**Flicker Detection**] → [**Detect**]

- In CINE mode, you can also access the Flicker Detection Start screen by pressing the AEL button while [**SHUTTER**] is selected in the Quick Set menu. (In STILL mode, assign [**Shutter Speed**] to the Quick Set menu using Custom QS.)

2

Fill the entire screen with a uniform surface, then press the ⦿ button.

- Do not move the camera while detection is in progress.

If detection succeeds, the detected frequency and the shutter speed (shutter angle) that will be set are displayed.

CAUTION

- You may not be able to avoid flicker depending on the frame rate specified in the Record Settings. If reducing flicker effects is a priority, change the frame rate and perform detection again.

- If Flicker Detection is performed with Variable Shutter set to [Off], additional options for that frequency are added to the normal shutter speed (shutter angle) settings.

Example: If the detected value is 1009.3 Hz:
(Shutter Angle at 59.94 fps)

Shutter Speed	Shutter Angle
•	11.2°
•	►21.3°
1/1250	22.5°
►1/1009.3	►42.7°
1/1000	45°
1/800	60°
1/640	►64.0°
►1/504.7	72°
1/500	75°
1/400	►85.5°
►1/336.8	86.4°
1/320	90°
►1/251.9	►107°
1/250	108°
•	•
•	•

- Shutter speeds with denominator values displayed with decimal points are added.
- Shutter angle with the value displayed to two decimal places added.

To clear the detected frequency and added shutter speed (shutter angle), go to [**SHOOT**] → [**Shutter Settings**] → [**Flicker Detection**] → [**Delete frequency**], select [**Delete**], and press the ⦿ button to confirm.

BULB SETTING

(STILL)
The shutter remains open when the shutter button is pressed all the way down.

1

Set the exposure mode to **M**.

2

Turn the Rear Dial to display [**BULB**] in the shutter speed display area.

3

Turn the Front Dial to select the desired aperture.

4

Hold down the shutter button until the desired exposure time is reached.

CAUTION

- The maximum exposure time for bulb shooting is five minutes. The shutter will close automatically after five minutes even if you keep the shutter button pressed.
- A long exposure may increase noise.
- Bulb shooting is not available when ISO Auto is selected.

EXPOSURE COMPENSATION

(CINE/STILL)
Use this function if you want to intentionally make the image brighter or darker than the appropriate exposure determined by the camera.

Select [/ **SHOOT**] → [**Exposure Compensation**] or use the Rear Dial to set the compensation value.

- Exposure compensation can be set in 1/3 stop increments up to ±5EV stops.

CAUTION

- The exposure compensation is not canceled automatically. When shooting is complete, use the Rear Dial to return the degree of compensation to ±**0.0**.
- Exposure compensation cannot be combined with **M** mode. (They can be combined when ISO Auto is set.)

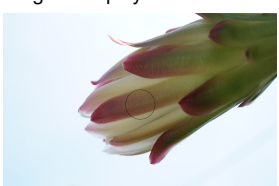
AE METERING MODE

Normally, the evaluative metering is performed to divide the entire screen and calculate the exposure. Spot metering is useful when you want to adjust the exposure to a specific area only.

To set the mode, open the Quick Set menu (STILL) or select [/**SHOOT**] → [**AE Metering Mode**].

Evaluative Metering (Default)	**Spot Metering**

When Spot Metering is set, a circle indicating the metering range is displayed in the center of the screen.



AEL BUTTON

The AEL button is available to do the shooting with the specified exposure in Auto mode.

The AEL button can be assigned to the AF-related and other functions in addition to the AE lock function.

To set this option, select [/ **SHOOT**] → [**Custom Buttons Functions**] → [**AEL**].

Assignable AE lock and AF-related functions

AEL (Default)	Press the **AEL** button to fix the exposure value at the current setting. Until the AEL button is pressed again, images can be taken with the same exposure.
AEL (Pressed**)**	The exposure is fixed only while the **AEL** button is being pressed.
AFL	Press the **AEL** button to lock the focus. Until the AEL button is pressed again, images can be taken with the same focusing point .
AFL (Pressed**)**	The focus is locked only while the **AEL** button is being pressed.
AEL+AFL	Press the **AEL** button to lock both AE and Focus simultaneously. Until the **AEL** button is pressed again, images can be taken with the same exposure and focusing point.

AEL+AFL (Pressed)	Both AE and Focus are locked simultaneously only while the **AEL** button is being pressed.
AF-ON	The Autofocus activates when the **AEL** button is being pressed.
Center AF	Pressing the AEL button activates autofocus using the center focus frame (P.XXX).

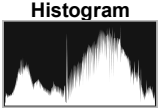
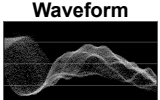
- For details on other assignable functions, refer to the relevant pages.
- The functions that can be assigned to the AEL button can also be assigned to the ⦿ button.

BRIGHTNESS LEVEL MONITOR

(CINE/STILL)
The brightness level can be selected from two types of brightness level views as a means to judge the exposure when shooting.

- Whether to display the brightness level monitor can be set from [**Brightness Level Monitor**] in |□| (display) mode (P.XXX). It can also be assigned to a custom button (P.XXX).

[**/ SHOOT**] → [Brightness Level Monitor]

Histogram 	For details on the histogram, refer to (P. XXX).
Waveform 	The horizontal axis indicates the horizontal position of the screen, and the vertical axis indicates the brightness level (bottom: 0, top: 255). Unlike the histogram, you can easily grasp the status of the brightness value at a given location.

- In CINE mode, both the histogram and waveform can be selected from two sizes (Standard and Wide).

EXPOSURE ASSIST

The camera has two tools that are useful to determine the exposure.
[Zebra Pattern] [False Color]

- Whether to display the Exposure Assist can be set from [**Exposure Assist**] in |□| (display) mode (P.XXX). It can also be assigned to a custom button (P.XXX).

ZEBRA PATTERN

Displays the desired brightness range in a zebra pattern.



[📷 /🎥 **SHOOT**] → [**Zebra Pattern**]

It can also be set from [**Exposure Assist**] in |□| (display) mode (P.XXX).

Zebra 1	Zebra 2

Each zebra pattern can be set to "On" or "Off".

1

Select "On", then press the ❯ button to open the setting screen. (Pressing the ⦿ button while "On" is selected displays the zebra pattern with the previous setting values.)

2

Use the ◁▷ button to select each item, and use the △▽ button or the Rear Dial to adjust the settings.

- Setting range: 0% (brightness value 0) to 100% (brightness value 255)
- You can choose from eight pattern colors.
- In areas where the "Zebra 1" and "Zebra 2" settings overlap, the "Zebra 1" zebra pattern takes precedence.

FALSE COLOR

Converts the image to gray scale and highlights key brightness ranges in signal colors.

- The displayed colors have the following meaning. The purple side indicates the underexposure, and the red side indicates the overexposure.

	STILL: JPEG CINE: H.264, H.265	**STILL: JPEG+DNG, DNG CINE: ProRes RAW, ProRes Raw HQ, L-Log**
Purple	Black clipping	Black clipping
Blue	Just above black clipping	Just above black clipping
Green	18% medium gray	18% medium gray
Pink	One stop over medium gray	One stop over medium gray
Yellow	Just below white clipping	2/3 stop below clipping
Red	White clipping	1/3 stop below clipping

- After selecting "False Color" in the |□| (display) mode settings, press the ▷ button again to display the signal color chart.

ISO SENSITIVITY SETTING

(CINE/STILL)

You can set the ISO sensitivity for shooting.

Quick Set menu or [/ **SHOOT**] → [**ISO Sensitivity Settings**] → [**ISO Sensitivity**].

ISO AUTO (ISO Auto) (Default)	The sensitivity is automatically set depending on the brightness. (**ISO 100** to **102400**)
ISO 100 to **102400**	The sensitivity is fixed to each value.

CAUTION

- When ProRes RAW HQ, ProRes RAW, or L-Log is selected, the ISO Auto control range and the available ISO sensitivity range are limited to 1250–102400.

You can change the ISO sensitivity setting step.

[/ **SHOOT**] → [**ISO Sensitivity Settings**] → [**ISO** Sensitivity Step]

1 EV	**1/3 EV** (Default)

LOW ISO SENSITIVITY EXPANSION

(STILL)
This function allows you to take multiple images at one time, produce the same status as the automatic synthesis or low sensitivity shooting, and shoot photographs with rich gradation and noises reduced.

- The Low ISO Expansion function is suitable for still-life and landscape photography. Please mount the camera securely on a tripod or similar support when shooting.

[SHOOT] → [ISO Sensitivity Settings] → [Low ISO Expansion]

Added ISO sensitivity

1/3 EV	ISO 6, 8, 10, 12, 16, 20, 25, 32, 40, 50, 64, 80
1 EV	ISO 6, 12, 25, 50

- The added ISO sensitivity values are underlined and indicated by the ISO icon.

CAUTION

- These values cannot be set as the lower limit for **ISO Auto**.
- For ISO settings between ISO 6 and ISO 80, the available shutter speed range and operational range vary depending on the selected ISO sensitivity.
- The ISO sensitivity values available with Low ISO Expansion cannot be used with the following functions:

Continuous (20 FPS), Variable Shutter, Flash Shooting

LOG/RAW ISO EXPANSION

(CINE)
When ProRes RAW HQ, ProRes RAW, or L-Log is set, you can expand the available low ISO sensitivity options.

[**/SHOOT**] → [**ISO Sensitivity Settings**] → [**Log/RAW ISO Expansion**]

Added ISO sensitivity

1/3 EV	ISO 320, 400, 500, 640, 800, 1000
1 EV	ISO 320, 640

- The added sensitivity setting values are underlined.

CAUTION

- These values cannot be set as the lower limit for **ISO Auto**.
- Overexposure may occur depending on the scene. Adjust the exposure carefully.

ISO AUTO RANGE

(CINE/STILL)
You can set the minimum and maximum values of the ISO sensitivity for ISO Auto.

[/ SHOOT] → [ISO Sensitivity Settings] → [ISO Auto Range]

	1/3 EV	1 EV
ISO Lowest Limit	**100～80000**	**100～51200**
ISO Highest Limit	**125～102400**	**200～102400**

CAUTION

- When ProRes RAW HQ, ProRes RAW, or L-Log is set, the lower ISO limit is restricted to 1250.

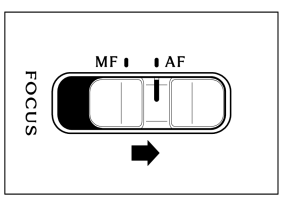
FOCUSING

Set the focus mode and options according to the shooting scene and subject.

HOW TO USE AUTOFOCUS

1

Set the focus mode selector switch (if present on the lens) to AF mode.



2

Set the camera's focus mode (P.XXX).

3

Half-press the shutter button to activate the Autofocus.

CAUTION

- Focusing accuracy may be reduced depending on the shooting environment or subject.
  - Low-contrast subjects
  - Flashing subjects
  - Fast-moving subjects
  - Very dark environments
  - Backlit subjects

FOCUS MODE SETTING

(CINE/STILL)
You can select the focus mode to suit the subject.

Press the FOCUS button, and select the desired option using the Front/Rear dial or the ◁▷ buttons.

You can also select [📷 /🎥 **SHOOT**] → [**Focus**] → [**Focus Mode**] to set Focus mode.

You can also select [📷 /🎥 **SHOOT**] → [**Lens Function Settings**] → [Focus Mode] to set Focus mode.

AF S	Single **AF** (Default: **STILL**)
AF C	Continuous **AF** (Default: **CINE**)
AF	Tracking AF
MF	Manual Focus

SINGLE AF

Available for a still subject. After the subject comes into focus, the focus point is fixed while the shutter button is being half-pressed.

- The focused frame turns green, and a focus confirmation beep sounds. (The beep does not sound in CINE mode.)

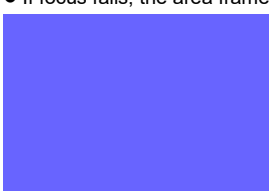


Multi-point Auto Focus (P.XXX)

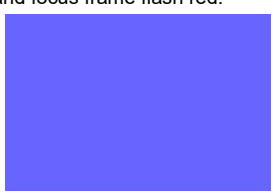


Single-point Auto Focus (P.XXX)

- If focus fails, the area frame and focus frame flash red.



Multi-point Auto Focus (P.XXX)



Single-point Auto Focus (P.XXX)

- The exposure is locked at the value when the shutter button is half-pressed. The exposure is not locked in CINE mode.
- When Continuous Drive Mode is selected, continuous shooting is conducted at the focus position and exposure of the first frame.

Focus lock shooting

After the subject comes into focus, you can change the composition for shooting while keeping the shutter button half-pressed.

- You can also perform Focus Lock shooting using the AEL button that is assigned to the focus lock function (P.XX).

CONTINUOUS AF

Available for a moving subject. Autofocus continues to operate while the shutter button is half-pressed.

- The focus frame turns green when focus is achieved, and the camera continues to focus on the subject within the area frame (focus frame when using 1-point AF) while the shutter button is half-pressed.
- If the subject moves outside the the area frame (focus frame when using 1-point AF), the camera performs autofocus again and focuses on another subject.
- If the continuous shooting is selected, the AF activation and shooting are repeated.
- The focus is not locked.
- The electronic beeping sound does not sound.

TRACKING AF

The camera automatically tracks a moving subject.

1

Place the subject within the area frame (focus frame when using 1-point AF), and half-press the shutter button.

2

When the subject comes into focus, the focus frame turns green; while the shutter button is half-pressed, the focus frame tracks the subject and maintains focus.

- If tracking is interrupted, for example, if the subject moves outside the frame, the focus frame shifts to another subject.
- To continue tracking the focused subject while recording a movie, keep the shutter button half-pressed.

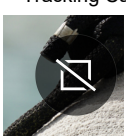
AUTO TRACKING AF

Tap the subject you want to focus on within the screen; the camera continues to focus on that subject.

- To enable [**Auto Tracking AF**], select [**SYSTEM**] → [**Touch Operation**], and assign [**Auto Tracking AF**] to [**Tap**]. (This can also be accessed from [Focus Function Assignment].)

Tap the screen to start tracking. An orange focus frame is displayed when tracking starts. Half-press the shutter button; the focus frame turns green when focus is achieved.

- During movie recording, tracking continues even after you release your finger from the shutter button.
- If the subject you are tracking moves off-screen for a certain period of time, tracking stops.
- The camera may switch to a different subject during tracking.
- To cancel the Auto Tracking mode, move the subject you are tracking off-screen for a certain period of time or tap the Auto Tracking Cancel tap button.



CONSTANT AF

(CINE)
Set whether AF continues to operate when the shutter button is not half-pressed (default: ON).

Use the ◇ buttons to select it on each AF Focus Mode screen.



TIP

- When shooting while moving or when shooting scenes with moving subjects, setting a larger area frame provides more stable focusing performance.
- You can adjust the speed at which the focus shifts (P.XXX).

CAUTION

- The lens focus mechanism is always active, so the battery will run out quickly. Please be aware of the remaining battery power level.

FOCUS FRAME SETTING

You can set the optimal focus frame to suit the subject conditions, such as still or moving subjects.

Press the ⋮⋮⋮ button to display the focus frame setting screen.

- You can turn the Front/Rear Dial to change the focus frame or adjust the size.
- You can use the ◇ button to move the focus frame.

You can also select [📷 / 🎥 **SHOOT**] → [**Focus**] → [**Focus Area**] to set the target.

MULTI-POINT AUTO FOCUS

The camera selects the optimal focus frame in the area frame and adjusts the focus. This is effective for moving subjects or subjects that are not in the center.

Turn the Front/Rear Dial to display the area frame.



- The area frame can be selected from four sizes, ranging from the minimum size to the full screen.

1 POINT (1-POINT SELECTION)

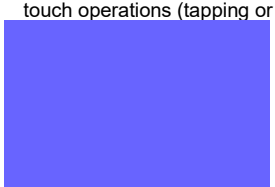
Focus using the focus frame at the desired position. This function is available when the subject position is determined.



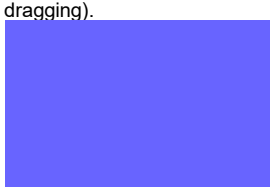
Turn the Front/Rear Dial to display the focus frame (large or small).

CHANGING THE FRAME POSITION

- You can move the area frame (except when the full screen setting is selected) and focus frame using the ◇ buttons or touch operations (tapping or dragging).



Multi-point Auto Focus (P.XXX)



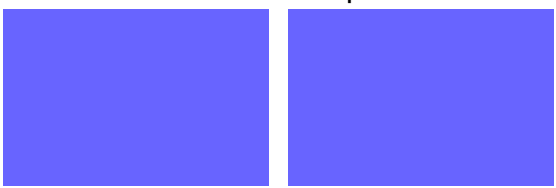
Single-point Auto Focus (P.XXX)

- Press the MODE button to return the area frame to the center.

You can select how to move the frame.

- Each time the **AEL** button is pressed, the mode toggles between [Free Movement Mode] and [Step Movement Mode].

Free Movement Mode **Step Movement Mode**



- [Free Movement Mode] allows you to move continuously across the screen.
- [Step Movement Mode] allows you to move in steps based on 49 points on the screen.

- You can also move the frame using touch operations (tapping or dragging) without pressing the ⠿ button.

[**SYSTEM**] → [**Touch Operation**] → [**On**] → [ ] → [**Tap**] → [**Focus Area Shift** (Default)]

SUBJECT TRACKING

Detect humans and animals and preferentially focus on them.

[/ SHOOT] → [Focus] → [Subject Tracking]

This function can also be set from the focus-related tab in the Setup menu, which is displayed by pressing the FOCUS button and the AEL button in sequence.

OFF	Sets to the normal AF mode without performing detection.
Human + Animal Detection	(Default) Preferentially detects humans and animals.
Human Detection	Preferentially detects humans.
Animal Detection	Preferentially detects animals.

- Detection prioritizes the subject's eyes.
- In MF mode, Subject Tracking cannot be set.

When the focus frame is set to "Multi Auto Focus Points" (default):

- If a subject is detected, a white focus frame is displayed. Half-press the shutter button; the focus frame turns green when focus is achieved. In **AF C** mode, the camera continues to focus on the subject within the area frame. In **AF** mode, the camera continues to track that subject.

- If multiple subjects are detected (when both eyes of a subject are detected, they are counted as multiple subjects), up to three focus frames (white and gray) are displayed. If the white focus frame is not on your intended subject, you can switch to a different focus frame using the ◁▷ button.



CAUTION

- If you change [**Quick Subject Select**] (the ◁▷ button's default setting) to another setting under [**Custom Buttons Functions**] (P.XXX), you will no longer be able to move the focus frame. To enable focus frame movement, assign [**Quick Subject Select**] to the ◁▷ button or the ◇ button.
- Detection may not be possible in the following situations.
  - Part of the face is blocked by sunglasses, a hat, bangs, etc.
  - Dark or backlit scene.
  - The subject is significantly out of focus.
  - The subject is moving quickly.

When the focus frame is set to "1-Point":

- Without Subject Tracking, the lens focuses at the position of the focus frame, as usual.

AF SHIFT

If the intended position is not focused on, press the ^ v button while half-pressing the shutter button to re-measure the distance.

- Press the ^ button to re-measure the distance at a position farther away from the current focus position.
- Press the v button to re-measure the distance at a position closer to the current focus position.
- When the focus frame is set to [1-Point], the distance is re-measured with the focus frame currently displayed. When [Multi-point Auto Focus] is selected, the optimal focus frame is selected in the area frame to re-measure the distance.
- If the lens fails to focus at the far end, it stops at infinity. If the lens fails to focus at the near end, it stops at the closest focusing position.

MANUAL FOCUSING

1

Set the Focus mode selector switch (if one is on the lens) to **MF**. (Set the camera's Focus mode to MF [Manual Focus] if the lens does not have a Focus mode selector switch (see P. XX).)

2

Turn the focusing ring on the lens to obtain a clear, sharp image.

TIP

- By default, the [**MF Auto Review**] (P.XX) is set to ON to make focusing easier. For details, refer to [AF-S Auto Review / MF Auto Review] (P.XXX).

AF-S AUTO REVIEW / MF AUTO REVIEW

You can check the focus status with the automatic image magnification and the focus peaking display (Display Focus Review).

Auto Review screen



1. Focus Peaking tap button
2. Remaining display time
3. Focus
4. Magnified position display
5. Scale bar
6. Infinity position
7. Minimum distance position

AF-S Auto Review

In Single AF mode, Focus Review is displayed after focus is achieved while the shutter button is half-pressed.

[/ **SHOOT**] → [**Focus**] → [**AF S Auto Review**]

MF Auto Review

In MF mode, Focus Review is displayed when the focus ring is turned.

[/ **SHOOT**] → [**Focus**] → [**MF Auto Review**]

Auto Assist Display

AF S Auto Review: Set the duration for automatic image magnification after focus is achieved.

MF Auto Review: Set the duration for automatic image magnification after turning the focus ring.

Off	Does not display a magnified view. (Default of AF S Auto Review)
1 sec.	Displays a magnified view for approximately one second.
2 sec.	Displays a magnified view for approximately two seconds. (Default of MF Auto Review)
5 sec.	Displays a magnified view for approximately three seconds.
HOLD	Keeps a magnified view.

- In Single AF and Multi-point Auto Focus mode, an image is magnified, centering around the focus frame that was focused.
- During image magnification, the magnification (1.0x, 2.0x, 4.0x, 8.0x) can be changed using the Front/Rear Dial.

Image Magnification

Configure how the image is magnified when automatic magnification is enabled.

Full Screen	Magnifies an image on the full screen.
PIP	Magnifies an image in the range of 25% in the center of the screen.

Peaking

You can display focus peaking (P.XXX) during automatic magnification.

- The focus peaking color and sensitivity settings are shared with the focus peaking settings (P.XXX).

CAUTION

- The focus/scale bar display and automatic magnification after MF operation are only available with compatible lenses.
- The focus/scale bar is not displayed when using a lens via the MOUNT CONVERTER MC-21.

DISPLAY FOCUS REVIEW

In Single AF and MF modes, press the ⦿ button to display Focus Review. The review is displayed as set with [AF S Auto Review] in Single AF, and as set with [MF Auto Review] in MF mode (excluding the Auto Assist Display setting).

- Focus Review can be displayed even with lenses that do not support automatic magnification.
- Press the ⦿ button again to return to the normal display.
- Half-press the shutter button to temporarily exit image magnification.
- In Single AF and Multi-point Auto Focus modes, press the ⦿ button before half-pressing the shutter button to magnify the center of the area frame.
- The Display Focus Review function can be assigned to the AEL button (P.XXX).
- The Display Focus Review function can be assigned to Touch Operation (Double Tap) (P.XXX).

Distance Scale Direction

(CINE/STILL)

You can change the direction of the distance scale displayed while Display Focus Review is active.

[/ SHOOT] → [Focus] → [Distance Scale Direction]

–	Displays the scale bar on which the far side is on the left and the near side is on the right.
–	Displays the scale bar on which the near side is on the left and the far side is on the right.

CAUTION

- The scale bar is displayed only with compatible lenses.

AF DURING IMAGE MAGNIFICATION

AF shooting is possible while Display Focus Review is enabled.



[/ **SHOOT**] → [**Focus**] → [**AF during Image Mag.**] → [**On**]

Setting to [**On**] displays the "+" mark in the center of the focus review.

Press the ⦿ button to display the focus review, align the subject with the "+" mark, and half-press the shutter button. When the subject is focused, the "+" mark changes to green. Then, start shooting as it is.

TIP

- The shooting is performed with the image magnified, so determine the composition and focus frame position before shooting.
- You can use the ‹^› button to move the focus frame during image magnification.

CENTER AF

Regardless of the position of the area frame or focus frame, press the ⦿ button or AEL button to activate Autofocus using the small focus frame at the center of the screen.

- To enable [**Center AF**], assign it to the ⦿ button using [**Custom Buttons Functions**] (P.XXX). (This can also be accessed from [**Focus Function Assignment**].)
- If the large focus frame is set, Autofocus activates using the large focus frame at the center of the screen.
- After Autofocus is activated, the area frame returns to the center when Multi-point Auto Focus is selected, and the focus frame returns to the center when 1-point is selected.

AF+MF

After focusing with Autofocus, you can turn the focus ring to fine-adjust the focus.

[/ SHOOT] → [Focus] → [AF+MF]

Off	When set to AF, the focus ring does not function.
On (Default)	The focus ring can be operated while the shutter button is being half-pressed. After fine-adjusting the focus, press the shutter button all the way down to take the picture.
Full-time	The focus ring can be operated at all times.

CAUTION

- When using a lens via the MOUNT CONVERTER MC-21, the camera operates in the same way as when [On] is selected, even if [Full-time] is selected.
- If a lens that allows focus ring operation in AF mode is attached, the focus ring functions even if [Off] is selected.

FOCUS LIMITER

Limits the focus operating range to accelerate the AF speed.

[/ SHOOT] → [Focus] → [Focus Limiter]

This function can also be set from **[/ SHOOT] → [Lens Function Settings] → [Focus Limiter]**.

Off (Default)	Does not limit the operating range.
○○-○○m	The focus only operates on the near side.
○○m - ∞	The focus only operates on the far side.

- The values vary depending on the lens attached.

If the near side is selected, the icon is displayed. If the far side is selected, the icon is displayed.

CAUTION

- This setting is only available for compatible lenses. For details, please refer to the lens manual.

FOCUS/RELEASE

(STILL)
You can change the operation that starts when the shutter button is held down in each AF mode.

To set this option, select [**SHOOT**] → **[Focus]** → [**Prioritize Focus / Release**] → [**AF S Priority**] or [**AF C** / **AF** ⊡] **Priority**].

Release	Releases the shutter even if the subject is out of focus.
Focus (Default)	Does not release the shutter until the subject is focused.

- In **AF S**, when Drive Mode is set to [**Continuous**], the continuous shooting is carried out at the first frame's focus position even if either setting is selected.

FOCUS PEAKING

Emphasizes the outline of the focused part on the subject in the display. This function is useful for focusing. For peaking, you can select easy-to-see colors depending on the subject.

[/ **SHOOT]** → [**Focus**] → [**Focus Peaking**]

Off (Default)	**BK** (black)	**C** (cyan)
	R (red)	**B** (blue)
WH (white)	**YE** (yellow)	**M** (magenta)

Use the button to set the sensitivity of focus peaking.

The setting range is ±3 steps. The default setting is ±0; setting it toward the + side widens the display range, while setting it toward the - side narrows it.

- [Off] disables the focus peaking display.
- The focus peaking color and sensitivity settings are shared with the AF-S Auto Review or MF Auto Review peaking settings (P.XXX).

CAUTION

- [Focus Peaking] and [Exposure Assist] (P.XX) cannot be used simultaneously. If both are set, [Exposure Assist] takes priority.

FOCUS RING CONTROL

In MF, you can change the focus movement amount relative to the rotation angle of the focus ring.

[**SHOOT**] → [Focus] → [Focus Ring Control]

This function can also be set from [**SHOOT**] → [**Lens Function Settings**] → [**Focus Ring Control**].

- The name of the attached lens and the available angle range are displayed on the setting screen.

Use the ◁▷ buttons or the Front/Rear Dial to select the rotation angle.

AUTO (Default)	The focus movement amount changes depending on the rotation speed of the focus ring.
90° to 720°	Approximate angle from infinity to the shortest shooting distance
MAX	Maximum angle that can be set with that lens

- Angles marked with ⚠ are not supported.

CAUTION

- This setting is only available for compatible lenses.

QUICK FOCUS AREA SHIFT

You can directly shift the area frame (or the focus frame when [1-point] is selected) using the ⊹ button.

- To enable [**Quick Focus Area Shift**], assign the function to the ⊹ button using [**Custom Buttons Functions**] (P.XXX). (This can also be accessed from [**Focus Function Assignment**].)

CAUTION

- If [**Quick Focus Area Shift**] is assigned to the ⊹ button, the function previously assigned to that button will no longer be available.

TOUCH AF

Autofocus activates at the point you tap.

[🔧 **SYSTEM**] → [**Touch Operation**] → [**On**] → [📷] → [**Tap**] → [**Touch AF**]

- After touching, when the focus frame setting is [1-point], the focus frame moves to the tapped point. When [Multi-point Auto Focus] is selected, the area frame moves so that the tapped point is at the center.
- When [**Subject Tracking**] is selected, detection resumes after focusing.

FOCUS FUNCTION ASSIGNMENT

The items related to focus function assignment are grouped under [/ **SHOOT**] → [**Focus**] → [**Focus Function Assignment**].

AEL / ⦿ （P.XXX）
^ / v / < / > （P.XXX）
Touch Operation（P.XXX）
Lens AFL Button *

* Settings are only available when a compatible lens is attached.

Lens AFL button

You can customize the AFL button functions of the lens equipped with the AFL button.

AFL (Default)	If you press the AFL button while AF mode is active, AF mode stops.*
AF-ON	If you press the AFL button, AF mode is activated.

AF TRACKING RETENTION

(CINE/STILL)
You can set the tracking sensitivity when the subject moves outside the focus frame or is blocked by an obstacle.

[**SHOOT**] → [**Focus**] → [**AF Tracking Retention**]

- The adjusted value takes effect when Continuous AF in STILL/CINE mode, or Constant AF in CINE mode, is operating.
- Adjustable in five steps, ranging from [**Responsive**] to [**Stable**]. The default setting is 3 (center).
- When you want to switch subjects smoothly while shooting, set it to [**Responsive**].
- When you want to maintain focus on your intended subject without being affected by obstacles, set it to [**Stable**].

AF TRANSITION SPEED

(CINE)
You can adjust the Autofocus drive speed for video recording.

[**/ SHOOT**] → [**Focus**] → [**AF Transition Speed**]

- The adjustment is available when [**Constant AF**] is set to [On].
- Adjustable in 7 steps, ranging from [**Slow**] to [**Fast**]. The default is 5.
- Set it to [**Slow**] if you want to shift focus gradually between subjects at different distances, or set it to [**Fast**] if you want to shift focus quickly.

CAUTION

- The speed adjustment does not apply when using a lens via the MOUNT CONVERTER MC-21.

DRIVE MODE

(STILL)
Select the operation performed when the shutter button is pressed, such as the self-timer or continuous shooting.

To set the operation, open the Quick Set menu or select [**SHOOT**] → [**Drive Mode**].

1	**Single Capture**	3	**Continuous (3FPS)**
20	**Continuous (20FPS)**	2	**Self Timer 2sec.**
8	**Continuous (8FPS)**	10	**Self Timer 10sec.**
5	**Continuous (5FPS)**	INT	**Interval Timer**

SINGLE CAPTURE

When you press the shutter button, only one image is captured.

CONTINUOUS SHOOTING

When you keep the shutter button fully depressed, the camera continuously captures images.

CAUTION

- When the number of frames that can be taken continuously falls below 99, the remaining buffer capacity is displayed red. When the number reaches 0, shooting is no longer possible.



- The following functions or settings cannot be used simultaneously.

ISO sensitivity added with [Continuous (20FPS)] and [Low ISO Expansion].

- [Continuous (20FPS)] is not supported for lenses via MOUNT CONVERTER MC-21.

SELF TIMER SHOOTING

Self Timer 2sec.
The picture is taken about two seconds after you press the shutter button.

Self Timer 10sec.
The picture is taken about 10 seconds after you press the shutter button.

Determine the composition and half-press the shutter button to focus. Press the shutter button further to activate Self Timer. While active, the Tally Lamp Indicator flashes and an electronic tone sounds. Two seconds before the set time, the flashing and electronic tone speed up to notify you.

- If you want to cancel Self Timer while it is active, press the shutter button again.
- When [Self Timer 2sec./10sec.] is selected, you can press the ❯ button again to turn the Tally Lamp Indicator on or off (P.XXX).
- If [🔧 **SYSTEM**] → [**Sound Settings**] → [**Timer Volume**] is set to [**0%**], the timer tone does not sound. (If [**Speaker Volume**] is set to [**0**], all the electronic tones do not sound.)

INTERVAL TIMER

It is possible to take pictures automatically at selected intervals.

1

Select [Interval timer] and press the ▶ button to display the Interval Timer setting screen. (When the ⊛ button is pressed after selecting [**Interval timer**], the picture is taken with previously used settings.)

To set from the Quick Set Menu, select [INT], and press the AEL button to display the setting screen. (When the ⊛ button is pressed or the shutter button is pressed halfway after selecting [INT], the picture is taken with previously used settings.)

2

Use the ▲▼ button to set the shooting interval and the number of shots.

Shooting interval	Number of shots
1 sec. to 60 min.	2 to 9999 times

- The total time until the last frame is taken is displayed on the settings screen.

3

Use the ⊛ button to confirm the settings and press the MENU button to return to the shooting screen.

4

Press the shutter button to start interval timer shooting.

- Once shooting starts, the screen displays the time until the next frame will be taken and the number of frames remaining.
- While the interval timer is active, the Tally Lamp Indicator flashes, and the flashing becomes faster two seconds before exposure begins. You can select [**Interval Timer**] → [**Tally Lamp Indicator**] to turn the notification on or off (P.XXX).
- If the exposure mode is set to P or A, the shooting interval takes precedence over the exposure time, which may result in underexposure.
- If the exposure mode is set to S or M, the shooting interval cannot be set shorter than the shutter speed. Also, if the shutter speed is changed, the shooting interval may shift.
- As for shooting with Autofocus, the second and subsequent frames are taken at the focus position that was AF-locked in the first shot.
- If the shooting interval is set shorter, the next shot may start before you return to the shooting screen.
- The exposure is re-metered each time a shot is taken. If you want to take the second and subsequent shots with the same exposure as the first, set M mode or use the AE lock button to fix the exposure.
- To cancel the Interval Timer midway during shooting, press the shutter button.

CAUTION

- Shooting may be interrupted midway depending on the battery power level. It is recommended that an external power supply is used.

MOVIE OUTPUT

You can generate a movie by combining still images captured at the same time as still image shooting.

Go to [**Interval Timer**] → [**Movie Output**] → [**On**] to set the movie's [**Resolution**] and [**Frame Rate**].

Resolution

4K | 16:9	3,840 × 2,160
2K | 16:9	1,920 × 1,080

Frame Rate

24 fps	**29.97 fps**	**50 fps**
25 fps	**48 fps**	**59.94 fps**

- The video format is fixed to H.265.
- The duration (in seconds) of the generated video is calculated by dividing the number of shots by the frame rate.

Example: 120 shots ÷ 24 fps = five seconds of video

- The simultaneously recorded movies are assigned file numbers according to the normal movie file numbering system and are stored in the "CINEMA" folder.
- Audio is not recorded.
- The recorded still images are based on the [Image Quality] and [DC Crop Mode] settings, but the aspect ratio is fixed to 16:9.

IMAGE STABILIZATION

Configure settings for the Stabilization function.

CAUTION

- [**Electronic Stabilization**], [**Lens Optical Stabilization**], and [**Gyro Data Output**] cannot be combined together.
- When shooting with the camera fixed on a tripod, turn off the Stabilization function.

LENS OPTICAL STABLIZATION

This function allows you to turn the lens with the stabilization function installed on or off. When the Stabilization switch (OS switch, etc.) is provided on the lens side, operate the switch on the lens side.

Go to [**SHOOT**] → [**Stabilization**] → [**Lens Optical Stabilization**], and select [**On**] or [**Off**].

You can also select [**SHOOT**] → [**Lens Function Settings**] → [**Optical Stabilization**] to set this function.

- For details on the Lens Optical Stabilization function, refer to the lens's instruction manual.

ELECTRONIC STABLIZATION

(CINE)
This function is only available in Record mode. This function instantly shifts the file cropping area in response to shaking detected by the sensor, and counteracts image blurs to ensure smooth recording.

Go to [**SHOOT**] → [**Stabilization**] → [**Electronic Stabilization**], and select [**On**] or [**Off**].

While Electronic Stabilization is enabled, the Electronic Stabilization icon is displayed.

- When using Electronic Stabilization, the image is recorded in the range cropped to x1.25 (x1.96 when a DC lens is attached).

GYRO DATA OUTPUT

(CINE)
You can save gyro data for use with stabilization software on a computer.

When [**Gyro Data Output**] is set to [**On**] in [/ **SHOOT**] → [**Stabilization**] → [**Gyro Data Output**], two files with the same name as the movie file are saved in the folder where the movie file is stored.

.CSV: Motion data
.JSON: Lens profile

- When using a lens without communication capability, if you manually enter the focal length, the focal length information is recorded in the lens profile (P.XXX). (If the focal length is not entered manually, the .JSON file is not saved.)

CAUTION

- Gyro Data Output is not supported for HDMI Recorded Image Output.
- When using a zoom lens without communication capability, ensure that the focal length setting matches the actual focal length used. If you zoom the lens during shooting, the data cannot be used correctly.

IMAGE FILE SETTING

(STILL)
Set the image quality and aspect ratio of still images.

IMAGE QUALITY SETTING

Set the format of record images or the image quality of JPEG images.

Quick Set menu, or [**SHOOT**] → [**Image Quality**]

DNG+J	**DNG+JPEG**	Simultaneous recording of DNG (RAW format) and JPEG format
DNG	**DNG**	DNG (RAW Format)
JPEG	**JPEG** (Default)	JPEG Format

TIP

- DNG (RAW format) is a record format based on the material properties. Development process by **SIGMA Photo Pro**, etc. is required. **SIGMA Photo Pro** can be downloaded free of charge from our website. Sigma recommends that you always update SIGMA Photo Pro to the latest version.

  sigma-global.com/en/software/

- If necessary, you can create JPEG images from DNG images with the camera. Refer to [**DNG Development**] (P. XXX).
- DNG is the RAW image data that is developed by Adobe Systems Incorporated.

ASPECT RATIO SETTING

Set the aspect ratio of an image.

Quick Set menu, or [**SHOOT**] → [**Aspect Ratio**]

21:9	Approximately the same aspect ratio as a widescreen movie.
16:9	Same aspect ratio as a high-definition television.
3:2 (default)	Same aspect ratio as a 35mm film camera.
A SIZE	The aspect ratio is the same as the general A series paper size.
4:3	Same aspect ratio as the conventional computer screen (VGA).
6x7	Approximately the same aspect ratio as a 6x7 camera.
1:1	Square aspect ratio like that taken with a 6x6 camera.

- The image of each aspect ratio is cut and created from an image of the basic aspect ratio, "3:2", of this product.

TIP

- A DNG image can be changed to another aspect ratio using **SIGMA Photo Pro** or the DNG Development function of the camera.

When shooting at aspect ratios other than 3:2, the frame is normally displayed in black; however, switching to a semi-transparent display allows you to use it like a sports finder, while also checking your surroundings.

[📷 SHOOT] → [Live View Settings] → [Outer Frame]

Black (Default)	Semi-transparent

IMAGE FILE SIZE

Below shows the approximate file size (MB) per image for a combination of each image quality and aspect ratio.

- The file size varies depending on the subject.

DC Crop mode OFF (1x)

Aspect Ratio	Number of Pixels	DNG	JPEG
21:9	6,016 × 2,540		
16:9	6,016 × 3,384		
3:2	6,016 × 4,012		
ASIZE	5,672 × 4,012		
4:3	5,348 × 4,012		
6x7	4,980 × 4,012		
1:1	4,012 × 4,012		

DC Crop mode ON (1.57x)

Aspect Ratio	Number of Pixels	DNG	JPEG
21:9	3,840 × 1,620		
16:9	3,840 × 2,160		
3:2	3,840 × 2,560		
ASIZE	3,616 × 2,560		
4:3	3,408 × 2,560		
6x7	3,184 × 2,560		
1:1	2,560 × 2,560		

MOVIE RECORD SETTING

(CINE)
Set the record format, resolution, or frame rate of a movie.

FORMAT

Set the record format of a movie.

Quick Set menu, or [**SHOOT**] → [**Record Settings**] → [**Format**]

ProRes RAW HQ	Best grading flexibility RAW format suitable for producing the highest-quality image.
ProRes RAW	Best grading flexibility A RAW format that reduces data size while maintaining image quality comparable to HQ.
L-Log	Best grading flexibility A log format with a wide dynamic range.
H.265 (Default)	A format that achieves high compression and high image quality.
H.264	Highly versatile and available for viewing in a variety of environments.

- Both are based on MOV format.

CAUTION

- ProRes RAW HQ, ProRes RAW, and L-Log require editing with compatible software.
- ProRes RAW HQ and ProRes RAW can only be selected when the recording storage is set to USB storage.
- For ProRes RAW HQ, ProRes RAW, and L-Log, the selectable ISO sensitivity range is limited to 1250 to 102400.
- Color modes cannot be applied to ProRes RAW HQ, ProRes RAW, or L-Log.

Log Gamma Auto Review

ProRes RAW HQ, ProRes RAW, and L-Log are formats intended for post-production editing, so the live view image is displayed with low contrast. You can shoot on a live view screen that reproduces the 709 Look so that you can easily see what the final edited image will look like.

[**SHOOT**] → [**Log Gamma Auto Review**]

LOG	**L-Log Gamma View** (Default)	The live view screen displays the original L-Log gamma.
709	**709 Look View**	This is a live view screen that reproduces the 709 Look.

- The Log Gamma Auto Review does not affect the recorded image.

RESOLUTION

Set the resolution (size) of a movie.

Quick Set menu, or [**SHOOT**] → [**Record Settings**] → [**Resolution**]

6K	6,016 x 3,384 (16:9)
UHD (Default)	3,840 x 2,160 (16:9)
FHD	1,920 x 1,080 (16:9)

- 6K cannot be selected when DC Crop (Super35) mode is set.

CHANGING THE ASPECT RATIO

The movie aspect ratio is normally 16:9, but you can record movies with different aspect ratios.

On the resolution setting screen, press the ◇ button to select the desired one.

4:3	**3:2**	**16:9**	**17:9**

- The available aspect ratios are limited depending on the format, resolution, and frame rate settings.

- The number of recorded pixels for each resolution and aspect ratio combination is as follows:

Resolution	Aspect Ratio	DC Crop Mode	
		Off	On
6K	4:3	5,348 × 4,012	
	3:2	6,016 × 4,012	
	16:9	6,016 × 3,384	
	17:9	6,016 × 3,172	
4K	4:3	3,408 × 2,560	3,840 × 2,560
	3:2	3,840 × 2,560	3,408 × 2,560
	16:9	3,840 × 2,160	3,840 × 2,160
	17:9	4,096 × 2,160	4,096 × 2,160
2K	16:9	1,920 × 1,080	1,920 × 1,080

FRAME RATE

Set the frame rate (the number of frames per second).

Quick Set menu, or [**SHOOT**] → [**Record Settings**] → [**Frame Rate**]

23.98 fps	**48 fps**
24 fps	**50 fps**
25 fps	**59.94 fps** (Default)
29.97 fps	**100 fps**
47.95 fps	**119.88 fps**

- The selectable frame rates are limited depending on the format, resolution, and aspect ratio settings.

BIT RATE AND COMPATIBLE STORAGE

The below table shows the correspondence between the movie bit rate and compatible storage depending on a combination of video record settings.

O: Available, x: Unavailable

ProRes RAW HQ (16:9) (DC Crop Mode: Off)

Resolution	Frame rate (fps)	Bit rate (Mbps)	Compatible storage		
					
6K	23.98	3905	O	×	×
	24	3908			
	25	4071			
	29.97	4886			
4K	23.98	1591			
	24	1592			
	25	1659			
	29.97	1990			
	47.95	3182			
	48	3185			
	50	3317			
	59.94	3981			
2K	23.98	398			
	24	398			
	25	415			
	29.97	498			
	47.95	796			
	48	796			
	50	830			
	59.94	995			
	100	1659			
	119.88	1991			

ProRes RAW (16:9) (DC Crop Mode: Off)

Resolution	Frame rate (fps)	Bit rate (Mbps)	Compatible storage		
					
6K	23.98	2603	○	×	×
	24	2605			
	25	2714			
	29.97	3257			
4K	23.98	1061			
	24	1061			
	25	1106			
	29.97	1327			
	47.95	2121			
	48	2123			
	50	2211			
	59.94	2654			
2K	23.98	265			
	24	265			
	25	277			
	29.97	332			
	47.95	531			
	48	531			
	50	553			
	59.94	663			
	100	1106			
	119.88	1327			

L-Log (16:9) (DC Crop Mode: Off)

Resolution	Frame rate (fps)	Bit rate (Mbps)	Compatible storage		
					
6K	23.98	200	○	○	○
	24	200			
	25	200			
	29.97	200			
	48	300			
	50	300			
	59.94	300			
4K	23.98	150			
	24	150			
	25	150			
	29.97	150			
	48	200			
	50	200			
	59.94	200			
2K	23.98	100			
	24	100			
	25	100			
	29.97	100			
	48	100			
	50	100			
	59.94	100			
	100	150			
	119.88	150			

H.265 (16:9) (DC Crop Mode: Off)

Resolution	Frame rate (fps)	Bit rate (Mbps)	Compatible storage		
			•⇆	▭▸	📷
6K	23.98	200	○	○	○
	24	200			
	25	200			
	29.97	200			
	48	300			
	50	300			
	59.94	300			
4K	23.98	150			
	24	150			
	25	150			
	29.97	150			
	48	200			
	50	200			
	59.94	200			
2K	23.98	100			
	24	100			
	25	100			
	29.97	100			
	48	100			
	50	100			
	59.94	100			
	100	150			
	119.88	150			

H.264 (16:9) (DC Crop Mode: Off)

Resolution	Frame rate (fps)	Bit rate (Mbps)	Compatible storage		
4K	23.98	150	○	○	○
	24	150			
	25	150			
	29.97	150			
	50	200			
	59.94	200			
2K	23.98	100			
	24	100			
	25	100			
	29.97	100			
	50	100			
	59.94	100			
	100	150			
	119.88	150			

- For movie recording to an SD card (L-Log, H.265, H.264), SDXC UHS-1 or higher is recommended.
- Verified external SSD

- For the latest information on compatible storage devices, please check the Sigma website.

CAUTION

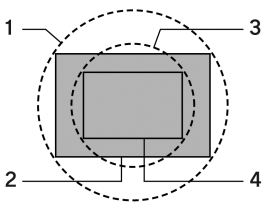
- Operation is not guaranteed for all storages.

DC CROP (SUPER35) MODE

With the APS-C format lens attached, this product provides DC Crop mode to automatically switch the record range of the image sensor. You can also manually switch the recording range.

CAUTION

- With some lenses, you may not be able to switch the recording range.



1. Image circle of full size lens
2. Full size image range
3. Image circle of APS-C size lens
4. APS-C size image range

To set the value, select [/ **SHOOT**] → [**DC Crop Mode***].

* "**DC Crop (Super35) Mode**" is displayed in CINE mode.

Off	Records the full size image range.
On	Records the APS-C size image range.
Auto (Default)	The image range is switched depending on the attached lens.

The DC Crop mode icon is displayed in DC Crop mode.

- When a full size lens is mounted and DC Crop mode [On] is selected, the peripheral areas in the image will be cut off and the angle of view shifts 1.57 times to the telephoto end, when it is compared to the mode [Off].
- In DC Crop mode, the image size is set as shown below.

3,840 × 2,560 4K (at 3:2 setting)

- In CINE mode, the resolution (4K/2K) remains unchanged even when DC Crop mode is selected.
- Resolution 6K is not available in CINE mode.

CAUTION

- When an APS-C size lens is mounted and DC Crop mode [Off] is selected, there will be vignetting in the image and the resolution might not be sufficient due to the larger sensor size.

(CINE)
This function simulates how an angle of view is changed depending on the setting information of the registered cinema camera and the focal length of the attached lens. (Movie can also be recorded.)



- The settings for three patterns can be saved and recalled.

CAUTION

- The following functions or settings cannot be used simultaneously.

Electronic Stabilization

- This function is not available for lenses that do not allow the "DC Crop mode" setting to be changed.
- Only Single AF and Manual Focus are available for the Focus Mode setting. Only the 1-point (Small) focus frame can be used.
- The time code is not displayed.
- The Display Focus Review function is not available.

1

Select [**SHOOT**] → [**Director's Viewfinder**], and specify the desired number between "#1" and "#3".

2

Specify [**Brand**], [**Model**], and [**Settings**] as simulation conditions. (Set [**Desqueeze**] as needed.)

3

Set [**Surround View**].

Off	Movies wider than 16:9 are fitted crosswise, and movies taller than 16:9 are fitted lengthwise.
Black	The area outside the frame range is masked in black without fitting to the screen.
Semi-transparent	The area outside the frame range becomes semi- transparent without fitting to the screen, so you can check the area outside the frame range.

- The below table shows the correspondence between the registered cameras and setting information.

Brand	Model	Settings
ARRI	ALEXA 35 Xtreme	4.6K 3:2 Open Gate 4.6K 16:9 4K 16:9 4K 2:1 3.3K 6:5 3K 1:1 2.7K 8:9 2K 16:9 S16
	ALEXA LF / ALEXA Mini LF	Open Gate LF 2.39:1 LF 16:9

Brand	Model	Settings
ARRI	ALEXA Mini	ARRIRAW Open Gate 3.4K ARRIRAW 2.8K ARRIRAW 2.39:1 2K ARRIRAW 16:9 HD ProRes 4K UHD ProRes 3.2K ProRes 4:3 2.8K ProRes HD ProRes 2K ProRes S16 HD
	AMIRA	ARRIRAW 2.8K ProRes 4K UHD ProRes 3.2K ProRes HD ProRes 2K ProRes S16 HD MPEG-2 HD
	ARRICAM / ARRIFLEX	ANSI S35 4-Perf. ANSI S35 3-Perf.
SONY	VENICE 2 8K	8.6K 3:2 8.6K 17:9 8.2K 17:9 8.2K 2.39:1 8.1K 16:9 7.6K 16:9 5.8K 6:5 5.8K 4:3 5.8K 17:9 5.5K 2.39:1 5.4K 16:9
	VENICE / VENICE 2 6K	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 17:9 4K 2.39:1 3.8K 16:9

Brand	Model	Settings
SONY	BRANO	FF 8.6K 16:9 FF 8.6K 17:9 FFc 6K 16:9 FFc 6K 17:9 FFc 3.8K 16:9 S35 5.8K 16:9 S35 5.8K 17:9 S35 1.9K 16:9 S35 4.3K 4:3 S35c 4K 17:9
RED	V-RAPTOR XL [X]	8K 16:9 8K 3:2 8K 4:3 8K 6:5 8K 1:1 7K 3:2 7K 4:3 7K 6:5 7K 1:1 6K 17:9 6K 2:1 6K 2.4:1 6K 16:9 6K 1:1 5K 17:9 5K 2:1 5K 2.4:1 5K 16:9 5K 1:1 4K 17:9 4K 2:1 4K 2.4:1 4K 16:9 4K 1:1
	MONSTRO 8K	7K FF 6K FF 4K FF
	HELIUM 8K	8K FF 8K 6:5

Brand	Model	Settings
RED	DRAGON 6K	6K FF
	EPIC MX 5K	5K FF
	GEMINI 5K	5K Full Height 1.7:1 5K FF 5K Full Height 6:5
	KOMODO X	6K 17:9 6K 2:1 6K 2.4:1 6K 16:9 6K 3:2 6K 4:3 6K 6:5 6K 1:1 5K 17:9 5K 16:9 4K 17:9 4K 16:9

- The movie format can only be set to L-Log or H.265. The resolution is fixed to 4K.
- After using this function, select [**Director's Viewfinder**] → [**Off**].

CAUTION

- Only when playback is done on this product, the simulation conditions specified at the time of shooting and the surround view information are applied, enabling you to check the effect.
- DC Crop mode is released; therefore, the part around the screen may become dark or lead to a resolution failure.

PLAYBACK

The playback method is the same as that of a regular movie or still image. For details on how to play a video, refer to "PLAYING A MOVIE" (P.XXX).

The image recorded in Director's Viewfinder mode is marked by the setting icon.



- You can also extract still images from a movie (P.XXX).
- The simulation settings and Surround View settings used during recording cannot be changed.

AUDIO RECORD SETTING

(CINE)
Configure settings for sounds that are recorded simultaneously in a movie.

AUDIO RECORD SETTING

[**SHOOT**] → [**Audio Record**]

Off	No audio is recorded with the movie.
On (Default)	Audio is recorded with the movie.

- By default, stereo audio is recorded on Ch.1/Ch.2 using the internal microphone.
- The audio recording settings can be assigned to the Quick Set menu (P.XX).

Gain Adjustment

You can make a level adjustment while checking the currently input sound using the audiometer.

[**SHOOT**] → [**Audio Record**] → [**On**] → [**Ch.1/2**] → [**Internal Mic.**] → [**Gain Adjustment**]

Auto (Default)	The camera adjusts the optimal level.
Manual	Allows you to adjust Ch.1 and Ch.2 independently.
Manual (Ch.1/2 Sync.)	Applies the Ch.1 setting to Ch.2

Use the ◇ buttons to adjust the level, and press the ⦿ button to confirm.

- For Auto, the reference level can be adjusted within a range of +2 to -12.
- For Manual, the level can be adjusted within a range of +6dB to -36dB in 3dB increments.
- The gain adjustment can be assigned to the Quick Set menu (P.XX) or a custom button (P.XX).
- Gain adjustment is only available for the internal microphone and microphones connected to the 3.5 mm terminal.

Wind Noise Canceller

Reduces wind noises.

[**SHOOT**] → [**Audio Record**] → [**On**] → [**Ch.1/2**] → [**Internal Mic.**] → [**Wind Noise Canceller**]

Off (Default)	**On**

- The wind noise canceller can only be set for the internal microphone and microphones connected to the 3.5 mm terminal.

Recording Quality

You can set the recording quality.

[**SHOOT**] → [**Audio Record**] → [**On**] → [**Recording Quality**]

- The available recording quality options vary depending on the connected device(s) and combinations of devices. The recording quality options displayed in gray cannot be selected.
- This camera supports 32-bit float recording. When a compatible device is connected, select a recording quality option labeled "**32bit Float**".

Recording with an external microphone

You can record using an external microphone or record in 4 channels by adding an external microphone. Assign devices to [**Ch.1/Ch.2**] and [**Ch.3/Ch.**4].

[**SHOOT**] → [**Audio Record**] → [**On**] → [**Ch.1/2**] and [**Ch.3/4**]

Off (Do not use)	
Internal Mic.	**USB**
3.5mm Terminal	**HU-21**

USB microphone

Adjust the USB microphone level using [**Adjustment Amount**]. The level can be adjusted within a range of 0 to 15 (default: 8).

USB-connected audio devices

USB-connected audio devices, such as USB microphones, can be connected to either the upper or lower USB port, but they cannot be used simultaneously.
(Example)

- Simultaneous use of two USB microphones.
- Simultaneous use of a USB microphone and USB headphones.

ABOUT DMW-XLR2 / DMW-DMS1

This camera is compatible with the following Panasonic products.

- XLR Microphone Adapter DMW-XLR2
- Digital Shotgun Microphone DMW-DMS1

- The Hot Shoe Unit HU-21 (sold separately) is required for attachment to the camera.
- For details on how to attach the hot shoe unit, refer to the HU-21 instruction manual.
- Attach them to the hot shoe of the HU-21 according to the instructions in the DMW-XLR2/DMW-DMS1 instruction manual.

DMW-XLR2 settings

- Please also read the DMW-XLR2 instruction manual.
- The gain adjustment and wind noise canceller cannot be configured on the camera side. Set these settings on the XLR2 unit.

When recording 2 channels using a microphone connected to the XLR2, or recording 4 channels in combination with another device

For 2-channel recording, set either [**Ch.1/2**] or [**Ch.3/4**] to [**HU-21**], and set the other channel to [**Off**].

- Set the XLR2 SELECT switch according to the XLR2 instruction manual, depending on the microphone connection status. (If [**Ch.3/Ch.4**] is assigned, replace **Ch.1** with **Ch.3** and **Ch.2** with **Ch.4**.)

To perform 4-channel recording by combining with another device, assign the other device to the remaining channel other than [**HU-21**].

To perform 4-channel recording using a microphone connected to the XLR2

Set the assignment for both [**Ch.1/2**] and [**Ch.3/4**] to [**HU-21**].

- For the relationship between the XLR2 microphone terminals and the camera channel numbers, refer to the XLR2 instruction manual.
- If [**3.5mm** Terminal] is selected in [**SYSTEM**] → [**Time Code**] → [**External Input**], the 4-channel recording is not available.

DMW-DMS1 settings

- Please also read the DMW-DMS1 Instruction Manual.
- The gain adjustment and wind noise canceller cannot be configured on the camera side. Set these settings on the DMS1 unit.
- When the DMW-DMS1 is attached, the DMW-DMS1 Settings menu is added.

[**SHOOT**] → [**Audio Record**] → [**On**] → [**Ch.1/2**]/[**Ch.3/4**] → [**HU-21**] → [**DMW-DMS1 Settings**]

- The added items can be configured from either [**Ch.1/2**] or [**Ch.3/4**].

To perform 2-channel recording using the DMS1, or 4-channel recording by combining with another device

For 2-channel recording, set either [**Ch.1/2**] or [**Ch.3/4**] to [**HU-21**], and set the other channel to [**Off**].
To perform 4-channel recording by combining with another device, assign the other device to the remaining channel other than [**HU-21**].

To use the DMS1 backup function

Backup audio from [**Ch.1/2**] can be recorded to [**Ch.3/4**].

Assign [**HU-21**] to both [**Ch.1/2**] and [**Ch.3/4**], then select the desired mode under [**Backup Mode (Ch.3/4)**] on the [**HU-21**] → [**DMW-DMS1 Settings**] screen.

Mode 1	Ch.3 records backup audio in omnidirectional mode. Ch.4 records backup audio in omnidirectional mode at a level 20 dB lower than Ch.3.
Mode 2	Ch.3 records backup audio with the same directivity as Ch.1, at a level 20 dB lower than Ch.1. Ch.4 records backup audio with the same directivity as Ch.2, at a level 20 dB lower than Ch.2.

Button Brightness

You can set the brightness of the DMS1 directivity buttons when they are lit.

H	Bright
M (Default)	Standard
L	Dim

WHITE BALANCE SETTING (WB)

In general use, the white balance is adjusted automatically; however, if the desired colors are not obtained, you can configure a setting from the preset white balance.



To set this option, open the Quick Set menu or select [/ **SHOOT**] → [**White Balance**].

	Mode	COLOR TEMP.	DESCRIPTION
AWB	**Auto** (Default)	-	Adjusted automatically. Use your camera in this mode for regular photography
AWB	**Auto (Lighting Source Priority)**	-	Select this setting to allow the camera to automatically determine the appropriate white balance while valuing the color and atmosphere of the light source.
	Incandescent	Approx. 2,870K	Under lighting of incandescent light bulb
	Fluorescent	Approx. 4,170K	Under white fluorescent lamp
K	**Manual**		Set the color temperature with a numerical value.
	Daylight	Approx. 5,620K	Sunny outdoor location
	Overcast	Approx. 6,730K	Cloudy outdoor location
WB	**Flash**	Approx. 6,930K	When compatible flash is used
	Shade	Approx. 7,500K	Shaded area in sunny outdoor location
	Custom	-	Select this setting to determine the white balance based on the image taken.

FINE-ADJUSTING THE WHITE BALANCE

You can fine-adjust each preset white balance.

1

On the [**White Balance**] screen, select the desired white balance and use the **AEL** button to display the [**White Balance Fine-Adjustment**] screen.

To set White Balance from Quick Set Menu, select preferred White Balance, and use the **AEL** button to display the White Balance Adjustment screen.

2

Use the ◇ buttons or the Front/Rear Dial to adjust the color temperature, and use the ◇ buttons to adjust the hue (M-magenta, G-green).

3

Press the ⊙ button or half-press the shutter button to apply the setting.

- The fine-adjusted white balance is set to K (Manual) and displayed as the adjusted value on the Live View screen.

CAUTION

- You cannot save multiple K (Manual) settings. It is always overwritten by the last white balance you adjusted.

TIP

- The preset white balances on the "White Balance" screen are arranged in order of color temperature. The position of K (Manual) changes depending on the adjustment value.

FINE-ADJUSTING THE AUTO WHITE BALANCE

When you make fine adjustments for Auto or Auto (Lighting Source Priority), the white balance is set to the value the camera determines to be appropriate, taking into account the adjustment amount.

1

On the [**White Balance**] screen, select AWB or AWB , and use the AEL button to display the [**White Balance Fine-Adjustment**] screen.

2

Use the ◁▷ buttons or the Front/Rear Dial to adjust the color temperature (B-blue, A-amber), and use the △▽ buttons to adjust the hue (M-magenta, G-green).

- The adjustment value is displayed to the right of the White Balance Icon.

SETTING A CUSTOM WHITE BALANCE

Select this setting to determine the white balance based on the image taken.

1

On the [White Balance] screen, select +.

From the Quick Set Menu, select +, and press the AEL button.

2

Under the lighting you want to shoot actually, place a white subject (such as white paper or a white wall) that you want to use as a reference in the frame at the center of the screen, and press the ⦿ button.

If capture succeeds, the frame turns yellow. If capture fails, the frame flashes red. Press the ⦿ button again.

3

Press the AEL button to complete the registration and take the photo.

- The captured custom white balance is displayed as the color temperature and hue values and lined up in the White Balance column.
- Up to 10 custom white balances can be saved. If the limit is exceeded, a message is displayed, so delete unnecessary custom white balances before acquiring one.
- You can also fine-adjust the custom white balance.

Deleting the custom white balance

1

On the [**White Balance**] screen, select the custom white balance you want to delete, and press the **MODE** mode button.

2

Use the ◇ button to select [**Delete**] and press the ⦿ button to confirm the setting.

WHITE BALANCE LOCK

When set to Auto or Auto (Lighting Source Priority), this function is convenient for temporarily fixing the white balance and shooting with a constant white balance.

Select [/ **SHOOT**] → [**Custom Buttons Functions**], and assign [**WB Lock**] to the **AEL** button or the ⦿ button.

Pressing the button locks the white balance at that time.

While the white balance is being locked, the icon indicating that the lock is active is displayed.

- Until you press the button again, the white balance lock is not released.

COLOR MODE

It is possible to select the desired Color mode depending on the shooting conditions. In addition to the above settings, Monochrome photography or movie can be selected.

Press the COLOR button and use the ◇ button to select the desired color mode from the Color Mode icon on the far left.

Alternatively, select [/ **SHOOT**] → [**Color Mode**].

STD. Standard (default)	A basic color mode suitable for a variety of scenes.
RICH Rich	Features high saturation and bright blues, resulting in a colorful finish.
CALM Calm	The contrast is set low, creating a soft, calm atmosphere.
Pow B. Powder Blue	This mode is characterized by a refreshing blue color with a bright and transparent look.
W.GLD Warm Gold	Expresses a deep atmosphere with calm tones and warm colors.
T&O Teal and Orange	Highlights orange colors such as a flesh color and turquoise of a complementary color to emphasize images.
Fov B. FOV Classic Blue	Expresses a deep blue and reproduces an impressive blue sky.
Fov Y. FOV Classic Yellow	Expresses the deep and impressive color tone with the yellow color emphasized.
For G. Forest Green	Expresses greens such as plants more impressively with the green color emphasized.
Sun R. Sunset Red	Expresses scenes such as sunsets more impressively with the red color emphasized.
CINE. Cinema	Expresses a movie-like image with reduced saturation and emphasized shadows.

709 709 Look	The 709 Look View used for L-Log recording has been set as a Color Mode. It reproduces colors that closely resemble human visual perception.
MONO. Monochrome	You can take monochrome photos.

TIP

- In **SIGMA Photo Pro**, Monochrome mode is designed for DNG data capture using **MONO**. Sigma Photo Pro can convert Monochrome DNG images into color. (JPEG data cannot be returned to a color image.)

CAUTION

- When developing DNG data with an Adobe Systems application, the color mode settings may not be reflected depending on the version of the application. Please check the up-to-date information.
- White balance settings are not available in **MONO**. (Monochrome).

COLOR MODE DETAILED SETTING

For each color mode, you can adjust the image parameters (Look Effect, Highlight, Shadow, Fade, Vignette) to create your desired image.

In the color mode you want to adjust, use the ◁▷ button to select the parameter, and use the △▽ button to set the adjustment amount.

Look Effect (excluding Monochrome)

You can emphasize or suppress the characteristics of each color mode. Setting a positive value makes the effect stronger, and setting a negative value makes the effect weaker.

Highlight

You can adjust the bright parts (highlights) of the image. Setting a positive value makes the image brighter, and setting a negative value makes the image darker.

Shadow

You can adjust the dark parts (shadows) of the image. Setting a positive value makes the image brighter, and setting a negative value makes the image darker.

Fade

Boosts blacks to create a softer impression. The more positive the value, the softer the impression.

Vignette

Reproduces the vignetting effect of a lens, emphasizing the subject in the center. The more positive the value, the stronger the vignetting effect.

Tone (Monochrome only)

If you set Color Mode to Monochrome, "Look Effect" changes to "Tone". You can create a monochrome image with a tint.

BW Black and White (default)	**R** Red	**WT** Warm Tone	**SEP** Sepia	**G** Green
BG Blue Green	**B** Blue	**CT** Cold Tone	**BP** Bluish Purple	**P** Purple

- If you adjust the look effect or the adjustment amount, the adjustment value is displayed.

CAUTION

- The vignette adjustment is not available when [Desqueeze] or [Electronic Stabilization] is enabled.

TIP

- For DNG data, you can change the color mode or adjust a parameter using **SIGMA Photo Pro**.

Filter Effect (Monochrome only)

You can change the contrast of monochrome images. For the filter color, the similar colors are expressed brighter, and the complementary colors are expressed darker.

[/ SHOOT] → [Filter Effect]

OFF OFF (Default)	**R** Red Filter	**OR** Orange Filter
YE Yellow Filter	**G** Green Filter	**B** Blue Filter

- Normally, set to OFF.

LENS OPTICS COMPENSATION

Specify whether or not to compensate for the following lens aberration.

To set this option, select [/ **SHOOT**] → [**Lens Optics Compensation**].

Diffraction	**Focus Breathing**
Vignetting	**Color Shading ***

* Available when a manual lens is attached (P.XXX).

- Compensation cannot be set to [**Off**] depending on the lens.

Diffraction

Reduces the deterioration of the image quality caused by the aperture.

Off (Default)	**On**

- Compensation is not available when ProRes RAW or ProRes RAW HQ is enabled.

VIGNETTING

Reduces the phenomenon in which the screen periphery darkens.

Off	**Auto** (Default)

- Compensation is not available when ProRes RAW or ProRes RAW HQ is enabled.

Focus Breathing

(CINE)

Reduces changes in the angle of view when the focus position is shifted.

Off (Default)	**Auto**

- This setting is only available when a compatible lens is attached.

MANUAL LENS SETTINGS

You can apply color shading compensation to lenses attached via a mount adapter or those without built-in compensation information and record the lens's focal length in the image information.

ENTERING LENS INFORMATION

1

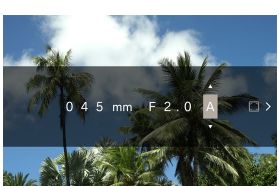
When a lens that does not have communication information with the camera is attached, [**No Lens**] is displayed in the top right corner of the screen.

2

Select [**SHOOT**] → [**Manual Lens Settings**] to recall the setting screen, and use the ❯ button to select [**Lens+**].

3

Use the ◇ button or the Rear Dial to enter lens information (suffixed by a symbol A to Z), then press the ⦿ button to confirm.



- When you take a picture in this state, the entered information is recorded in the image information. If you want to apply Color Shading Compensation, proceed to step **4**.

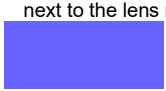
- To apply color shading compensation to a registered lens, select the desired lens under [/ **SHOOT**] → [**Manual Lens Settings**],and press the AEL button to proceed to step **4**.

CAPTURING THE COMPENSATION SCREEN

4

Go to [**Color Shading Compensation**] → [**Capture Compensation**], fill the entire frame with a uniform surface without color tint, such as white or gray, and press the ⦿ button.

- When compensation is successful, the ⛶ icon is displayed next to the lens name.



- Shooting and recording will continue with the same data until you change to the next L-mount lens.
- The camera cannot identify lenses without communication information. If you want to shoot with a registered lens, select the corresponding lens on the [Manual Lens Settings] screen.
- You can edit lens information, delete compensation data, or recapture compensation data. Select the corresponding lens and press the AEL button to perform these operations.
- To delete registered lens information, select the lens, press the **MODE** button, select [Delete], and press the ⦿ button to confirm.

CAUTION

- The entered focal length information is used for electronic stabilization compensation data. When using electronic stabilization, ensure the focal length information is entered correctly.
- The entered lens information is recorded in the lens profile (.JSON) for gyro data output. When using lens profiles, ensure the lens information is entered correctly.

BRACKETING

(STILL)
This function allows you to perform shooting while automatically bracketing the setting value in the following three items.

Exposure BKT
Focus BKT
White Balance BKT

CAUTION

- For Exposure BKT and Focus BKT, the specified number of shots are taken in succession. When the self-timer is used, the specified number of shots are taken in succession after the timer activates.
- For White Balance BKT, image processing is performed for the specified number of pages based on the one-time shooting data, so the writing time becomes longer than it is for regular shooting.
- Bracketing is not automatically canceled. When shooting is complete, select [Off] from each bracketing item.

1

Select [**SHOOT**] → [**Bracketing**], and select the target item.

2

Press the ❯ button to select [On], and press the ❯ button to open the [Further Options] screen. (If you press the ⦿ button while [**On**] is selected, shooting is performed with the previous setting value.)

3

Select the option you want to change on the Further Options screen. Then, press the ⦿ button or the ❯ button to open the sub menu.

EXPOSURE BKT

By setting the exposure judged as appropriate by the camera, it is possible to continuously take pictures with the exposure bracketed.

Bracketing Number	Number of shots (three or five)
Bracketing Amount	Up to ±3 steps in 1/3-step increments
Bracketing Order	**0 ➡ − ➡ +** (Default) appropriate exposure ➞ under exposure ➞ over exposure **− ➡ 0 ➡ +** under exposure ➞ appropriate exposure ➞ over exposure **+ ➡ 0 ➡ −** over exposure ➞ appropriate exposure ➞ under exposure

- The following functions or settings cannot be used simultaneously.

Interval Timer, Flash photography, Focus BKT

4

Use the ⌃⌄ buttons to select a desired value, and press the ⦿ button or the ❯ button to apply the setting.

When the setting is applied, the setting icon and compensation value are displayed.

- When the exposure mode is set to M, only shutter speed will be changed. (If ISO Auto is selected, ISO changes.)
- Exposure BKT can be combined with exposure compensation. Bracketing is performed based on the compensation value specified in Exposure Compensation.

FOCUS BKT

(Only when using an AF lens)
This function allows you to continuously take photographs with the focus position bracketed based on the focus position.

Bracketing Number	The number of pictures to be taken (3, 5, 7, 9, 11, 13, or 15)
Bracketing Amount	Up to ±10 levels in one-step increments
Bracketing Order	**0 ➡ − ➡ +** (Default) Focal point ➞ Front focus ➞ Rear focus **0 ➡ +** Focal point ➞ Rear focus **0 ➡ −** Focal point ➞ Front focus

- The shift distance per step varies depending on the lens and the aperture value used for shooting.
- The following functions or settings cannot be used simultaneously.

Interval Timer, Flash photography, Focus BKT, Exposure BKT, White Balance BKT

4

Use the ◇ buttons to select a desired value, and press the ⦿ button or the ❯ button to apply the setting.

When the setting is applied, the setting icon and compensation value are displayed.

- Bracketing is also possible for manual focus.
- When using a lens via the Mount Converter MC-21, set the lens's focus mode switch to AF.
- If the specified shift amount exceeds the lens's operating range, shooting at that focus position will be skipped.

WHITE BALANCE BKT

In a single shooting, several images with different white balances can be recorded.

Bracketing Axis	B-A / Color Temperature (Blue ↔ Amber) G-M (Green ↔ Magenta)
Bracketing Number	The number of shots to be recorded (three or five)
Bracketing Amount	In 2-step increments up to ±16 EV

Images are recorded based on the currently set white balance, with the specified number of images captured according to the selected bracketing direction and bracketing amount.

- Press the AEL button on the [White Balance BKT] screen to switch to white balance fine-tuning, where you can fine-tune the reference white balance.
- The following functions or settings cannot be used simultaneously.

Focus BKT

4

Use the ^ v buttons to select a desired value, and press the ⦿ button or the > button to apply the setting.

When the setting is applied, the setting icon and compensation value are displayed.

TIP

- Exposure BKT and White Balance BKT can be used simultaneously. For each image captured using Exposure BKT, an image reflecting the White Balance BKT settings is recorded.

CUSTOM MODE

You can register your preferred settings and easily recall them using the Mode button. (Up to six patterns can be registered.)

You can register all items under the [/**SHOOT**] (blue tab) menu.

REGISTERING CUSTOM MODE

1

Set the items in [/**SHOOT**] (blue tab) to your desired settings.

2

Select [**SYSTEM**] → [**Custom Mode Setting**], select one of **C1 through C6** using the ◇ button, and press the ⦿ button. (A confirmation message is displayed.)

3

Use the ◇ button to select [**Process**] and press the ⦿ button to confirm.

To cancel, select [**Cancel**] and press the ⦿ button to confirm.

CAUTION

- Once the save is confirmed, the previously saved settings are overwritten by the new settings.

RECALLING CUSTOM MODE

Press the Mode button and set it to **C1 through C6**.

- This function can also be set by selecting [/ **SHOOT**] → [**Shooting Mode**].
- If you press the AEL button on the Shooting Mode Selection screen, you can access the detailed Custom Mode settings and change the Custom Mode icon, name, and exposure mode.

When settings are changed in Custom Mode, the ● mark lights up.

To clear the changed settings, follow the steps below.

- Turn off the power (including when the power is turned off by the Auto Power Off function).
- Change to another mode using the Mode button.

Changing the custom mode icon or name

Pressing the AEL button immediately after registering the custom mode, or pressing the AEL button on the Shooting Mode Change screen.

CHANGING THE ICON

Specify two characters on the [**Icon**] entry screen.

For example, if you want to name the icon [**S2**], type **S** and **2** and press the ⦿ button to apply your change.

- Supported characters are alphabet characters (upper case only), digits, and symbols (#, -, ±, and +)
- If you want to initialize the icon, press the MODE button and then press the ⦿ button to confirm.

CHANGING THE NAME

Enter the appropriate characters on the [**Name**] entry screen. For details on how to enter characters, refer to [**How to enter text**] under [**Copyright Information**] (P.XXX).

- Each item can be entered using up to 16 single-byte alphanumeric characters and symbols.
- If you want to initialize the name, delete all characters on the entry screen.

SAVING AND LOADING SETTINGS

You can save camera settings as QR code images or load camera settings from QR codes. You can easily share recommended settings for the camera with other users via QR codes.

All items in [**SHOOT**] (blue tab) and part of the items in [**SYSTEM**] can be saved and loaded.

SAVING SETTINGS

Save the current camera settings on a memory storage as a QR code.

[**SYSTEM**] → [**Manage Settings**] → [**Save Settings**]

Entering an icon

Specify two characters on the [**Icon**] entry screen.

Entering the name

Enter the appropriate characters on the [**Name**] entry screen. For details on how to enter characters, refer to [**How to enter text**] under [**Copyright Information**] (P.XXX).

- It can be entered using up to 16 single-byte characters.

- The icon and name you set will be applied to Custom mode when the settings are read from the QR code.
- If the current shooting mode is a custom mode, an icon for that mode is entered by default. Otherwise, the current shooting mode followed by a hash (#) symbol is entered.

- If the current shooting mode is a custom mode, a name for that mode is entered by default. If no name has been set or the current shooting mode is PASM, "My Settings" appears.

Selecting settings to save

On the [**Settings to Save**] entry screen, select the settings you want to save. Point the cursor at each of the settings and use the ‹› buttons to check (✓) or uncheck (✕).
When the selection is complete, press the ⦿ button to confirm.

- Checked (✓) items are saved and unchecked (✕) items are not saved.
- All blue tabs are checked (✓) by default.
- Each time you press the MODE button, Check All Items changes to Uncheck All Items or vice versa in the tab you are viewing.
- The settings for both STILL and CINE modes are saved regardless of the current switch position.

Creating and saving QR code

When you position the cursor at the top of the [**Save Settings**] screen and press the › button or ⦿ button, the [**Save QR Code**] screen is displayed. Press the ⦿ button to save the QR code image on a memory storage.



- The QR code image contains information such as the icon and name for the recorded settings, tabs for the saved settings, camera model name, firmware version used by the camera, and dates and times when the settings are saved. Make use of it to identify what is recorded.
- The handling of file names and playback of QR code images is the same as for captured images in the screenshot feature. Refer to [**SCREENSHOT FUNCTION**] on (P.XXX).

LOADING SETTINGS

You can load the settings from the QR code displayed on a PC monitor into the camera.

1

[**SYSTEM**] → [**Load Settings**]

The camera activates in the QR code loading mode. The QR code is displayed full frame. If the camera detects the corresponding QR code, the [Select Destination Mode] screen is automatically displayed.

- Manually focus the camera.
- The Front and Rear Dials allow you to select the display magnification, 1.0x, 2.0x, 4.0x, or 8.0x.

Loading from images in the memory storage

Pressing the ∨ button in the QR code loading mode displays images saved on a memory storage. Select a QR code image from which you want to load the settings. When a QR code is loaded successfully, the name of settings appears. Use the ⦿ button to confirm; the [**Select Destination Mode**] screen opens.

- If a QR code is not loaded successfully from the image, use the Front Dial, up, down, right, or left buttons to adjust the size or position of the QR code displayed on the screen.

2

On the [Select Destination Mode] screen, press the ⦿ button. A confirmation dialog is displayed. Select [**Process**] to confirm your selection and press the ⦿ button. To cancel, select [**Cancel**] and press the ⦿ button.

- If the settings include [🔧 **SYSTEM**] items, system settings will be overwritten or a confirmation dialog will appear. If you select [**Cancel**], the settings excluding the system settings will be loaded.

CAUTION

- Once the save is confirmed, the previously saved settings are overwritten by the new settings.

BUTTON LOCK FUNCTION

This product provides the lock function that locks button operations and allows the user to concentrate on shooting without being bothered by erroneous button operations.

- The lock on/off function must be assigned to the Quick Set menu. Assign [**Button Lock**] in Custom QS (P.XX).

Lock

To lock, select [LOCK] in the Quick Set menu, and press the AEL button.

While the lock function is active, the LOCK icon is displayed at the bottom of the screen.

Unlock

Slide from the left to the right on the touch panel.

Alternatively, press the QS button, and then press the AEL button.

You can also specify a button you want to enable operation for even while the lock function is active. Select [**SYSTEM**] → [**Operation in Button Lock Mode**] to specify the target operation.

+REC button	The shutter button and REC button are available.
+REC button	The shutter button, REC button, and Front/Rear dial are available.

USING THE EXTERNAL FLASH

(STILL)
Flash photography is available when the separately sold Hot Shoe Unit HU-21 and a flash are attached. The camera communicates with the flash using a standard shared with OM SYSTEM / LUMIX. When a compatible flash is used, features such as TTL auto flash and wireless flash photography are available.

- The descriptions of the flash functions in this section assume that an OM SYSTEM / LUMIX flash is being used.
- Please also read the instruction manual for the flash.

CAUTION

- The following functions or settings cannot be used simultaneously.

Continuous (20FPS), ISO sensitivity settings added with the [Composite Low ISO Expansion], Interval Timer (During wireless flash), Exposure BKT, Focus BKT, Variable Shutter, Flicker Detection

- Some flash functions may not be supported by the camera.
- The flash sync speed is 1/50 second or slower (1/60 second or slower in DC Crop mode). When using a flash other than one compatible with OM SYSTEM or LUMIX, do not set the shutter speed faster than the flash sync speed.
- Remove the lens hood to prevent vignetting.

- Flash-related items in the Setup menu can be set when a flash is attached to the camera and turned on.

PRECAUTIONS FOR FLASH PHOTOGRAPHY

CAUTION

- Do not fire the flash close to a person's eyes. Doing so may impair eyesight. Maintain a distance of at least one meter, especially when photographing infants or young children.
- Do not fire the flash while covering the flash with your hand. Doing so may cause burns.
- For details, refer to the instruction manual for your external flash.
- Using a flash with any of the following characteristics may cause the camera to malfunction or become damaged:
  - Flashes with communication contacts other than those for OM SYSTEM / LUMIX.
  - Flashes with reversed sync contact polarity.
  - Flashes with a high sync contact voltage.

ATTACHING THE FLASH

1

Attach the separately sold Hot Shoe Unit HU-21 to the camera, following the instructions in its instruction manual.



2

Attach the flash to the hot shoe of the HU-21, following the instructions in the flash's instruction manual.

TTL AUTO SHOOTING

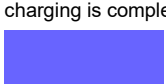
In TTL Auto shooting, the camera automatically controls the flash output.

1

Set the flash mode to TTL (TTL AUTO) following the instructions in the flash's instruction manual.

2

Confirm that the flash is fully charged, then take the picture.
(The ⚡ icon flashes while charging and stays lit when charging is complete.)



CAUTION

- If you take a picture before the flash is fully charged, the flash may not fire and correct exposure may not be achieved.

Shutter speed and aperture

The relationship between shutter speed and aperture in each exposure mode is as follows:

	Shutter speed	Aperture
P	Fixed at 1/50 sec. (1/60 sec. in DC Crop mode).	Set automatically.
A		Can be set manually.
S	Can be manually set to 1/50 sec. (1/60 sec. in DC Crop mode) or slower.	Set automatically.
M		Can be set manually.

- In M mode, when the shutter speed is set to [SYNC], it is fixed at 1/50 sec. (1/60 sec. in DC Crop mode).

FLASH EXPOSURE COMPENSATION

You can adjust only the flash output without affecting the background exposure.

[**SHOOT**] → [**Flash**] → [**Flash Exposure Compensation**]

Set the compensation value using the ◇ buttons.

- The compensation value can be adjusted in 1/3-stop increments up to ±3 stops.

When the setting is applied, the setting icon and compensation value are displayed.

CAUTION

- Flash exposure compensation is not reset automatically. When shooting is complete, follow the steps above to set the compensation value back to ±0.0.

FLASH MODE SETTING

Some flash functions can be set from the camera side.

[**SHOOT**] → [**Flash**]

Red-eye reduction flash mode [Red-eye]



A pre-flash is fired before the actual exposure to help reduce the red-eye effect.

Off (Default)	**On**

- Set the flash mode to TTL (TTL AUTO).
- Depending on the shooting conditions and the individual, the red-eye effect may not be completely eliminated.

Rear curtain sync mode [Rear Curtain Sync.]



The flash fires just before the exposure ends. This allows you to capture light trails or streaks behind a moving subject, creating a sense of natural motion.

Off (Default)	**On**

Slow sync. mode [Slow Sync.]



In **P** or **A** mode, the shutter speed is automatically controlled using a slow shutter speed of up to 30 seconds. This allows you to capture images with correct exposure for both the night scene and the subject.

Off (Default)	**On**

AF ASSIST LIGHT

You can set whether to use the flash's AF assist light when the shutter button is pressed halfway to ensure more stable autofocus performance in dark scenes.

Off (Default)	**On**

- If the AF assist light on the flash is set to [Off], it cannot be set on the camera.

WIRELESS FLASH PHOTOGRAPHY

You can use multiple flash units compatible with wireless flash. You can easily achieve professional-style lighting by adjusting the flash placement and output.

- Compatible with the OM SYSTEM / LUMIX optical wireless system.
- In this manual, the flash attached to the camera is referred to as the transmitter, and the flash placed away from the camera is referred to as the receiver.

Transmitter settings

1

Attach the flash to the hot shoe of the HU-21 and turn on the power for both the camera and the flash.

2

Select [**SHOOT**] → [**Flash**] → [**Optical Wireless**] → [**On**] to turn the wireless shooting on. (The transmitter's mode display changes to "RC".) (If you shoot in this state, the previous settings will be used for shooting.)

3

Select [**On**], then set the channel and flash output settings for each receiver group (A, B, and C).

Flash Mode

Off	The receivers in the selected group do not fire.
Auto	The flash output is determined by the receiver's auto function. (If the receiver does not have an auto function, the flash does not fire.)
Manual	Manually set the flash output level.
TTL (Default)	The camera automatically sets the optimal flash output.

- The transmitter operates according to the Group A settings. If you want to use the transmitter for the communication light only, set Group A's flash mode to [Off], set the receiver to a group other than A, and set the flash mode for that group.

Manual Flash Adjust.

Sets the flash output level when the flash mode is set to [Manual].

- The output level can be set between 1/128 and 1/1 (full output).

TTL Flash Adjust.

Sets the compensation value to adjust the relative flash output between groups set to TTL mode.

- This setting is available when the flash mode is set to [TTL].
- The compensation value can be adjusted in 1/3-stop increments up to ±3 stops.

Channel

To prevent malfunctions when others are using wireless flash photography, set a different channel. You can select from Ch.1 (default) to Ch.4.

Communication Light

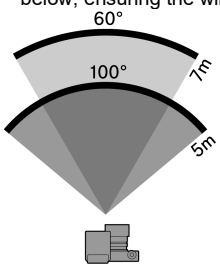
Selects the intensity of the communication light.

Low (Default)	**Medium**	**High**

Receiver settings

Set the receiver according to the instruction manual for your flash unit.

- Set the channel to match the camera's channel.
- Place the receiver within the approximate range shown below, ensuring the wireless sensor faces the camera.



CAUTION

- Use no more than approximately three receivers per group.
- The communication light may affect the exposure. Set the communication light to [Low]. If this still affects the exposure, reduce the light intensity using a diffuser or similar accessory.

CHANGING OTHER SETTINGS

This section describes other settings that can be configured in the items of [/ **SHOOT**].

COLOR SPACE

(STILL)
It is possible to select sRGB, which is a common color space or Adobe RGB, which is mainly used for commercial printing, and other industrial purposes.

[**SHOOT**] → [**Color Space**]

sRGB (Default)	**Adobe RGB**

CAUTION

- Please set the color space to sRGB for regular usage. Use the image set to Adobe RGB under the environment compatible with Adobe RGB.

LENS FUNCTION SETTINGS

Lens-related function settings are grouped under [/ **SHOOT**] → [**Lens Function Settings**].

Focus Mode (P.XXX)	**Optical Stabilization** (P.XXX)
Focus Limiter (P.XXX)	**AFL Button Functions** (P.XXX)
Focus Ring Control (P.XXX)	

SHUTTER BLACKOUT

(STILL)
Set whether or not to display a black image on the screen when the shutter button is pressed.

[**SHOOT**] → [**Shutter Blackout**]

Off	**On** (Default)

DESQUEEZE

Adjusts the vertical magnification of the image according to the anamorphic lens magnification factor to display a live view image with the correct aspect ratio when an anamorphic lens is used.

[**/ SHOOT**] → [**Desqueeze**]

- Set this to match the magnification factor of the attached lens.

Off	**1.3x**	**1.5x**	**1.65x**	**2.0x**
1.25x	**1.33x**	**1.6x**	**1.8x**	

For movie recording

- When recording with Desqueeze set to ON, the recorded movie data itself is not desqueezed; it is saved according to the movie recording settings.
- When a video recorded with Desqueeze set to ON is played back on the camera, it is desqueezed during playback.

For still image recording

In live view, an image with the vertical magnification adjusted based on a 3:2 aspect ratio is displayed within a 21:9 aspect ratio area.

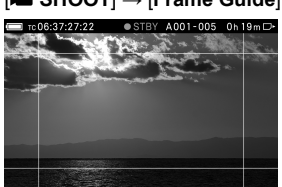
- At 1.25x to 1.5x, the top and bottom of the shooting area are cropped on the display. At 1.6x to 2x, black bars are added to the blank areas.
- For JPEG data, the recorded still image is saved with the same appearance as the live view display, with a 21:9 aspect ratio (6,016 × 2,540) (3,840 × 1,620 when DC Crop Mode is set to [On]). For DNG data, the image is saved with the 3:2 aspect ratio without being desqueezed.
- The aspect ratio for still images cannot be changed.

FRAME GUIDE

(CINE)

A frame guide that is useful for determining the composition can be displayed when shooting with different aspect ratios is taken into account.

[**SHOOT**] → [**Frame Guide**]



- You can set whether to display the frame guide in [Frame Guide] under (display) mode setting (P.XXX).

1.33:1 (4:3) (▭ / ▯ / ▭ + ▭) ※	**2.39:1** (▭ / ▯ / ▭ + ▭)
1.78:1 (16:9) (▭ / ▯ / ▭ + ▭)	**Custom Frame 1**
1.85:1 (▭ / ▯ / ▭ + ▭)	**Custom Frame 2**

* ▭: Landscape frame ▯: Portrait frame

- Frame Guide can be viewed when using Director's Viewfinder.
- Multiple frames can be displayed simultaneously.

- A display style can be set for each guide. Then, press the ❯ button to configure the settings.

Style	Color
Line	**Shading**

Style

Full Box	**Top / Bottom**
Corners	**Left / Right**

Line Width

The line width can be specified from one to 10 pixels.

CAUTION

- Depending on other settings, the line width may not be displayed as specified.

Color

White	Yellow	Blue
Black	Green	Magenta
Red	Cyan	

Shading

Darkly masks an area outside a frame in Semi-Transparent mode.

Off (Default)	**On**

Custom Frame

A custom frame can be displayed by entering an aspect ratio or absolute dimensions on the image sensor.

Select [**Custom Frame 1**] or [**Custom Frame 2**] → [**On**] to set this function.

- Select an input method from [Input] in the [**FORMAT**] tab.

Sensor Area	Specify the size on the image sensor to display the frame guide.
Aspect Ratio	Specify any aspect ratio to display the frame guide.

Input via [Sensor Area]

On the [Width/Height] entry screen, specify the width and height.

For example, to display a frame guide 20 mm wide and 10 mm high, enter "**20.00 x 10.00 mm**", and press the ⦿ button to confirm your entry. The aspect ratio of the frame guide is displayed as **2:1** on the setting screen.

- The maximum value of the image sensor when shooting a movie is 35.70 wide and 23.81 mm high.

- The frame guide can be resized while maintaining the aspect ratio of the entered values. Specify a percentage (100 to 1%) on the [Aspect Ratio/Scaling] entry screen. For example, to change the size from 20.00 x 10.00 mm to 10.00 x 5.00 mm, enter **50%** and press the ⦿ button to confirm your entry.
- The aspect ratio can be readjusted on the [Aspect Ratio/Scaling] entry screen.
- The values adjusted on the [Aspect Ratio/Scaling] entry screen are reset when changes are made from [Width/Height].
- The display range of the frame guide changes in Director's Viewfinder.

Input via [Aspect Ratio]

Specify the aspect ratio on the [**Aspect Ratio**] entry screen.

- The standard aspect ratio for movies is 16:9.
- Frame guides wider than 16:9 are fitted crosswise, and frame guides taller than 16:9 are fitted lengthwise.

TIP

- The center of the frame guide of a custom frame can be offset. Specify the direction in which to offset the center and how far to offset it for [**Offset**] on the entry screen in the [**OFFSET**] tab.
- The display style can also be set for the frame guide of a custom frame. To set the display style, set the appropriate option in the [**STYLE**] tab.

DIAL SETTINGS

You can assign the dial function or reverse the dial operation.

[/ SHOOT] → [Dial Settings]

Dial Functions	Dial Rotation
Disable Dial Functions	

Dial functions

This function enables you to reassign the Front and Rear Dials in each exposure mode.

1

Select the exposure mode and a dial you want to change, and press the ⦿ button to apply the change.

2

Use the ◇ buttons or the Rear Dial to select the function you want to assign, and press the ⦿ button to apply the setting.

- To reset a setting to its default value, select the setting you want to reset, press the ⦿ button, press the MODE to rest, then press the ⦿ button to confirm.
- This function enables you to switch the Front and Rear Dials. Select the ◆ buttons for the exposure mode you want to switch, press the ⦿, use the ◇ buttons to switch them, then press the ⦿ button to confirm your choice.

Dial Rotation

This function enables you to reverse the dial operation direction when shooting.

Aperture / Shutter Speed
Exposure Compensation

Select the target item. Then, press the ◁▷ buttons to select [**Original**] or [**Reverse**], and press the ⦿ button to apply the setting.

- The operation direction cannot be reversed for other functions assigned to "Dial Functions".

Disable Dial Functions

(CINE)

If you want to disable the operation of the Front/Rear Dial while in CINE mode, set this to [**On**].

Off (Default)	**On**

CUSTOM BUTTONS FUNCTIONS

Any function can be assigned to the following buttons as custom buttons.

AEL (P.XX)	**COLOR**
⦿	**MODE**
∧ ∨ 〈 〉	

- [Quick Focus Area Shift] in [∧ ∨ 〈 〉] is a function that allows you to directly move the focus frame (or the multi-point AF area frame for multi-point autofocus) using the 〈◇〉 button. Set it to [**On**] to use it.
- For functions that can be assigned to directional buttons and begin with [**Direct**…], you can directly select options using the 〈 〉 buttons or ◇ buttons.

CAUTION

- A button to which a function that is dedicated for STILL mode will not be available in CINE mode. A button to which a function that is dedicated for CINE mode will not be available in STILL mode.

SHUTTER BUTTON SETTINGS

You can change the function or behavior of the shutter button when it is half-pressed.

Shutter Button Functions (CINE)
Half-pressed AEL (STILL)
Half-pressed AF-ON

Shutter Button Functions (CINE)

You can change the function of the shutter button in the CINE mode.

Off	**REC** (Default)

Half-pressed AEL (STILL)

Select whether or not to fix the exposure when the shutter button is half-pressed.

Off	The exposure will be determined when depressing the shutter button.
On	The exposure will be locked when the shutter button is pressed "half-way".
AF S Only (Default)	Only when Autofocus Mode is set to **AF S**, the exposure is fixed when the button is half-pressed.

Half-pressed AF-ON

It is possible to select whether or not to operate Autofocus mode when the shutter button is half-pressed.

Off	**On** (Default)

REC BUTTON FUNCTIONS

(**STILL**)
You can prevent the REC button from being activated in STILL mode.

Off (Default)	**REC**

REVIEWING AND DELETING IMAGES

Press the ▶ button during live view to switch to Playback mode.

- Images in the storage used for the most recent shooting are displayed with priority, followed by images in the storage containing the most recent DNG development results or photos extracted from movies.

To change the storage for playback:

1

Press the ▶ button to switch to Playback mode.

2

Turn the Front Dial counterclockwise a few times to display the Playback Storage Switching screen.

3

Turn the Rear Dial or press the ◀▶ button to select the desired storage.



4

Turn the Front Dial clockwise to return to Playback mode.

- You can also change the playback storage by switching the memory storage.

[**SYSTEM**] → [**Memory Storage**]

PLAYING STILL IMAGE

SINGLE CAPTURE

Press the ▶ button to display an image.

- For a movie file, the first frame is displayed.

DURING SINGLE-IMAGE PLAYBACK:

- Display the previous or next image by turning the Rear Dial, pressing the ◀▶ buttons, or flicking (dragging) left or right on the touch panel.
- Each time the DISP button is pressed, the display mode changes (P.XX).



Image only display



Display with information



Information display

- When the information display is selected, the lower section switches between [shooting date/time display] and [shooting data display] each time the ◇◇ button is pressed.

1/2
shooting date/time display



1. Number of Pixels
2. Crop mode
3. Aspect Ratio
4. Image Quality
5. File number
6. Playback storage
7. File number / Total files recorded

2/2
shooting data display



8. Date/Time
9. Shutter Speed
10. F (T) Number
11. Exposure Compensation Value
12. ISO Sensitivity

TIP

- To scroll through images more quickly, press and hold the ◁▷ buttons. Images will advance automatically until the button is released.
- The first and last recorded images on the card are linked. Pressing the ◁ button while the first image is displayed brings up the last recorded image on the card. Pressing the ▷ button while the last image is displayed brings up the first recorded image on the card.
- If there are no images on the playback storage, the error message "No files on memory card" will be displayed.
- While reviewing images, pressing the ▶ button or half-pressing the shutter button will immediately set the camera to the shooting mode.

CAUTION

- Images captured with other cameras, or images whose filenames have been changed or that have been moved from their original folders, may not be displayed.

MAGNIFIED VIEWING)

(STILL IMAGES ONLY
During single-image playback, turn the Front Dial clockwise, or pinch out on the touch panel.

- Each time the dial is turned, the magnification increases.

1:1→1.3x→1.6x→2.0x→2.5x→3.2x→4.0x→5.0x→6.3x→8.0x →10x

- Each time you press the ⦿ button or double-tap the image on the touch panel, the magnification is toggled between magnified view and 1:1 view.

WHILE IN MAGNIFIED VIEW:

- Turn the Front Dial counterclockwise or pinch in on the touch panel to reduce an image.
- You can move the playback area by pressing the ‹◇› button or flicking (dragging) on the touch panel.
- Turn the Rear Dial to display the previous or next images.

TIP

- Images are magnified based on the position of the focus frame during shooting.

VIEWING NINE IMAGES AT A TIME (CONTACT SHEET VIEW)

Images can be viewed in a "contact sheet" of nine thumbnail images.



While reviewing an image, turn the Front Dial counterclockwise once.

WHILE IN CONTACT SHEET VIEW:

- Press the ◇ buttons or turn the Rear Dial to select other thumbnail images.
- When you turn the Front Dial clockwise, the selected thumbnail image is played back.
- When you tap any thumbnail on the touch panel, that image is played back.
- Flick (drag) the page on the touch panel to display the previous or next page.

TIP

- The first and last pages are linked. The first page is displayed after the last page.

DISPLAY BY DATE

The images taken that day are displayed as a list of thumbnails.



While reviewing an image, turn the Front Dial counterclockwise twice.

- The thumbnails of the first 42 images shot on that day are displayed. The total number of photos taken on that day is displayed next to the date.

WHEN VIEWING BY DATE:

- Turn the Rear Dial or press the ◁▷ button or flick (drag) left or right on the touch panel to display a list of thumbnail images of the previous or next date.

TIP

- The first and last pages are linked. The first page is displayed after the last page.

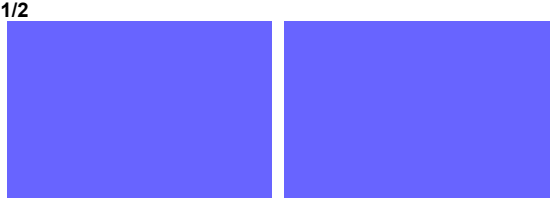
VIEWING IMAGE INFORMATION

You can view detailed information for shooting.

Press the |□| button twice while playing back a single image.

- There are two pages of image information. Press the ◇ button to switch them.

1/2



2/2



1. Same as single-image playback [Display Date and Time].
2. Lock / Mark *
3. In-camera DNG Development
4. Focusing Frame
5. Filtering Options for Display *
6. File Size
7. Shooting Information
8. Histogram (Brightness)
9. Histogram (Red)
10. Histogram (Green)
11. Histogram (Brue)
12. Lens Optics Compensation
13. Focal Length / Camera name
14. Copyright Information

* Displayed only when setting.

- For movies, the recorded time appears below File Size.

IN IMAGE INFORMATION VIEW:

- Display the previous or next image by turning the Rear Dial, pressing the ⟨⟩ buttons, or flicking right or left.
- Press the |□| button to change the display mode.
- For movies, when you press the ⦿ button or tap [▶] icon on the touch panel, the Single-Image Playback screen appears and a movie is played back.

MAGNIFYING IMAGES IN IMAGE INFORMATION SCREEN

(STILL IMAGES ONLY)
To enlarge an image and view the detailed histogram in a specific area, turn the Front Dial clockwise or pinch out on the touch panel while image information is being displayed.



- Each time you press the ⦿ button,the display alternates between magnified view and 1:1 view.
- For more information on the histogram, see the next section.

While magnifying the image in the Image Info Screen:

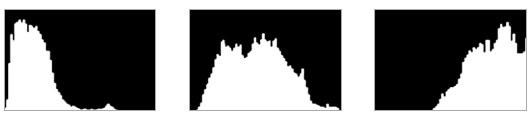
- You can move the playback area by pressing the ‹◇› button or flicking (dragging) on the touch panel. Turn the Front Dial clockwise to increase magnification. Turn the Front Dial counterclockwise to reduce magnification.
- Turn the Rear Dial to display the previous or next pages.

CAUTION

- In magnified view, you cannot move to any other page to display image information.

HISTOGRAM

The histogram is a graphic representation of the distribution of brightness in a picture. The horizontal axis shows the tone values from black (left) through gray to white (right). The vertical axis corresponds to the number of pixels at each brightness level. Accessing correct image exposure can be achieved by examining a histogram of the image.



Underexposure Correct exposure Overexposure

To display a histogram on this product, the brightness (totalized value of RGB), R (red), G (green), and B (blue) are displayed simultaneously at each level. (The histogram displayed in the shooting mode is the brightness only.)

- You can also use the histogram to determine if magnified view sections of an image are over or under exposed.

PLAYING BACK A MOVIE

When you press the ⦿ button or tap the ▶ icon on the touch panel while a movie file is being displayed, a movie is played back.



Playback lapse time 0:04:18

Total recording time 0:12:23

CAUTION

- It may take a long time to start playback depending on the card you are using, or playback may be interrupted.

DURING MOVIE PLAYBACK

Button/Dial	Operation
⦿	Pause
>	Fast-forward playback
<	Fast-backward playback
^	Increases the playback volume.
v	Reduces the playback volume.
Rear Dial	Fast-backward playback ↔ Fast-forward playback

The playback speed increases each time the > button is pressed or the dial is turned clockwise. (The playback speed decreases each time the < button is pressed or the dial is turned counterclockwise.)

PLAYBACK SPEED

X1→X1.2→X1.5→X2→X4→X8→X16→X32→X64→X128→X256→X512

- In X1 to X2, a movie is played back with sound.
- The speed in backward playback is X1.2 to X512 (audio will not play).

DURING PAUSE MODE

Button/Dial	Operation
⦿	Playback
>	Frame-by-frame playback
<	Reverse frame-by-frame playback
^	Increases the playback volume.
v	Reduces the playback volume.
Rear Dial	Reverse frame-by-frame playback ↔ Frame-by-frame playback

- Press the MENU button to exit movie playback.
- You can also change the playback volume in the playback settings menu.

[▶ **PLAY**] → [**Playback Sound Settings**] → [**Playback Volume**]

CUTTING OUT A PHOTO FROM A MOVIE

You can create a photo of the desired frame from a movie file.

1

Play back a movie, and temporarily stop it in the target frame.

- If you failed to stop in the desired frame, use the ◁▷ button or the Front/Rear dial in Pause mode to perform frame-by-frame playback.

2

Press the AEL button to save the JPEG image of that frame.

- The file size varies depending on the setting of [Resolution] and [Aspect Ratio] of the movie file. (Images recorded using the director's viewfinder depend on the settings.)
- JPEG images are saved in the DCIM folder on the storage where the movie files are stored.
- The created JPEG image is shown with the mark in the shooting information (P.XXX).
- The file number of the created JPEG image, which starts with "C__, is assigned by the next number after the last file number in the folder.

CAUTION

- If the storage does not have sufficient free space, a warning message is displayed, preventing you from saving the JPEG image. Follow the message instructions to free up space.

DELETING FILES

DELETING A FILE WITH DELETE BUTTON

(Delete) button allows you to delete the image displayed on the screen.

1

Select the file you want to delete and press the button.

- Press the button on the Display By Date screen to delete all images for that day in the playback storage. Please note that images not currently displayed as thumbnails will also be deleted.

2

Use the button to select [**Delete**] and press the button to confirm the setting.

If you want to cancel, select [**Cancel**] and press the button.

CAUTION

- The locked images cannot be deleted. If you want to delete the file, unlock it. (P.XXX)
- Images recorded in DNG+JPG will be deleted along with DNG and JPEG images.

DELETE FILES FROM THE DELETE MENU

You can delete a single file or multiple files.

1

Choose your desired option by selecting [▶ **PLAY**] → [**Delete**].

Select Files
Select multiple images and delete them.
Use the ◀▶ buttons to display the image you want to delete, and press the ⦿ buttons to display 🗑 icon.

- To cancel a selection, press the ⦿ button again to turn off the 🗑 icon.
- Selecting the Display By Date screen will select all the images for that day from the playback storage.

Repeat this step to select the images you want to delete, then press the **AE**L button to delete them.

Current File 🗑
Deletes only the image currently being displayed.

- While the contact sheet is displayed, the selected image is deleted.
- While the Display By Date screen is displayed, all images for that day in the playback storage are deleted.

All Marked  Deletes all the marked images (P.XXX) in the playback storage.
All Deletes all the images in the playback storage.

2

Use the ◁▷ button to select [**Delete**] and press the ⦿ button to confirm the setting.

If you want to cancel, select [**Cancel**] and press the ⦿ button.

CAUTION

- If the Display By Date screen is selected, images not displayed as thumbnails are also deleted.
- The locked images cannot be deleted. If you want to delete the file, unlock it. (P.XXX)
- It may take a significant amount of time to delete [**Select Files**], [**All Marked**], or [**All**] depending on the number of images stored.

OTHER REVIEWING FEATURES

FILTERING OPTIONS FOR DISPLAY

You can filter the file types to play back.

[▶ **PLAY**] → [**Filtering Options for Display**]

OFF	**Display All** (Default)
📷	**Still Images Only**
🎥	**Movie Clips Only**
📺	**Screenshot Only**

- Even if display filtering options are set, filtering options are deactivated when images that are prohibited from being displayed are taken.
- Image deletion, locking, and marking are also applied to the types of files specified in the playback filter.

PLAYBACK SOUND SETTINGS

Settings related to movie playback audio have been consolidated under [▶ **PLAY**] → [**Playback Sound Settings**].

Playback Volume
Multi-Ch. Output Settings

LOCK

Locking protects files from being accidentally deleted.

WARNING

- Be careful, as the following operations will also delete locked images.
  - [**Memory Storage Format**]
  - [**Manage Settings**] → [**Reset Settings**] → [**Initialize**]

TIP

- Locked files have a "read-only" status when viewed on a computer.

Choose your desired option by selecting [▶ **PLAY**] → [**Lock**].

Select Files
Select multiple images to lock them.
Use the ◀▶ buttons to display the image you want to lock, and use the ⦿ buttons to display 🔑 icon.

- To cancel a selection, press the ⦿ button again to turn off the 🔑 icon.
- Selecting the Display By Date screen will select all the images for that day from the playback storage.

Repeat this step to select the images you want to lock, then press the **AEL** button to execute the operation.

Current File Locks only the file currently being displayed. ● While the contact sheet is displayed, the selected image is locked. ● While the Display By Date screen is displayed, all images for that day from the playback storage are locked.
All Marked Locks all the marked images (P.XXX) in the playback storage.
All Locks all the images in the playback storage.

● A key icon will appear in the file indicating that the file is locked.

● To unlock, follow the steps above to select [**Select Files**], turn off the icon, then press the **AEL** button to confirm. Alternatively, display the locked image and select [**Current File**].

● [**All Marked**] unlocks all the marked images (P.XXX) in the playback storage.

● [**All**] unlocks all the images in the playback storage.

CAUTION

● It may take a significant amount of time to unlock [Select Files], [**All Marked**], or [**All Marked**] depending on the number of images stored.

MARK

It is useful for categorizing favorite images, deleting images, selecting images for locking, and other operations.

TIP

- Images marked using the camera are also displayed as marked in **SIGMA Photo Pro**.

Choose your desired option by selecting [▶ **PLAY**] → [Mark].

Select Files
Select multiple images to mark them.
Use the ◁▷ buttons to display the image you want to mark, and use the ⦿ buttons to display ⚑ icon.

- To cancel a selection, press the ⦿ button again to turn off the ⚑ icon.
- Selecting the Display By Date screen will select all the images for that day from the playback storage.

Repeat this step to select the images you want to mark, then press the **AEL** button to execute the operation.

Current File ⚑
Marks only the file currently being displayed.

- While the contact sheet is displayed, the selected image is marked.
- While the Display By Date screen is displayed, all images for that day from the playback storage are marked.

All
Marks all the images in the playback storage.

- A mark will appear in the marked image.

- To unmark, follow the steps above to select [**Select Files**] to turn off the icon and press the **AEL** button to execute the operation. Alternatively, display the marked image and select [**Current File**].
- [**All**] unmarks all the images in the playback storage.

CAUTION

- It may take a significant amount of time to unmark [**Select Files**], [**All**], or [**All**] depending on the number of images stored.
- The locked images cannot be marked or unmarked. If you want to mark or unmark the file, unlock it in advance. (P.XXX)

ROTATE

(Still image only)

You can rotate the direction in which images are displayed.

1

Select [▶ **PLAY**] → [**Rotate**].

2

Use the ◁▷ buttons to display the image you want to rotate, and press the ⦿ button (the image rotates, and the ↻ icon is displayed).
Repeat this until you have specified all of the files you want to rotate.

- Each time the ⦿ button is pressed, the image rotates 90˚ clockwise.

3

Press the **AEL** button to execute the operation.

- Images rotated on the camera will be displayed in their rotated orientation in SIGMA Photo Pro.

CAUTION

- If "**Horizontal Alignment**" in the options menu is set to "ON", you cannot select Rotate.

DNG DEVELOPMENT

Without using a PC, it is possible for the FP2 to develop JPEG images from images recorded in DNG.



1. Exposure Compensation
2. Fill Light
3. Aspect Ratio
4. Horizon Correction Tool
5. Color Mode
6. White Balance
7. Image Quality
8. Color Space
9. Diffraction Compensation
10. Optical Vignetting Compensation
11. Icon to start image development
12. Description of selected icon

1

Display the DNG image you want to develop, select [▶ **PLAY**] → [**DNG** Development] → [Current File] or [▶ **PLAY**] → [**DNG Development**] → [**Select Files**], and press the ◇ button to display the image you want to develop, then press the ⊙ button to confirm.

2

In the DNG Development Setting screen, press the ◇ buttons to select an item you want to change, and press the ⊙ button to confirm your selection.

- The details settings are possible depending on items or options. Press the AEL button to display the Further Options screen. For details, refer to the related sections in this instruction manual.

3

While checking the image, use Rear Dial or <> buttons to change the adjustment value (or option). Then, press the ⦿ to confirm.

4

Repeat steps **2** and **3** in case there are multiple items to change.

5

After finalizing the adjustment, select ⮋ (the Process RAW Development icon) and press the ⦿ button.

6

Use the <> button to select [**Develop**] and press the ⦿ button to confirm the setting.

If you want to cancel, select [**Cancel**] and press the ⦿ button.

- The created JPEG image is saved in the folder where the original DNG image is saved.
- The created JPEG image is shown with the ⮋ mark.
- The file number of the created JPEG image, which starts with "R__, is assigned by the next number after the last file number in the folder.

CAUTION

- If the storage does not have sufficient free space, a warning message is displayed, preventing you from executing the DNG development.
- It is recommended that **SIGMA Photo Pro** is used for further detailed adjustment.

TIP

- Fill Light: This function enables you to adjust the brightness so that dark parts become lighter, without changing the exposure of light parts in an image.
- [Auto] in Horizon Correction: Automatically corrects the horizon based on the electronic level data recorded during shooting (correction range: up to 5° left or right).

EXPOSURE WARNING

This function displays a red warning for a highlighted part in which a halation occurs on an image due to an overexposure.

[▶ **PLAY**] → [**Exposure Warning**]

Off (Default)	**On**

- [Exposure Warning] is not displayed on the [Quick Preview] screen.

HORIZONTAL ALIGNMENT

You can specify the orientation to display the image.

[▶ **PLAY**] → [**Horizontal Alignment**]

Off (Default)	Displays in the orientation to take a picture.
On	Shows all files horizontally.

- When set to [Off], movies recorded vertically are played back in the upright (vertical) orientation.

AEL BUTTON FUNCTION

The playback menu function can be allocated to the **AEL** button. Allocating frequently used functions allows you to perform operations easily using one action.

[▶ **PLAY**] → [**AEL Button Function**]

Off	Does not function during playback.
Lock	Lock the currently selected image by pressing the **AEL** button. If the current image is already locked, the image will be unlocked.
Mark	Mark the currently selected image by pressing the **AEL** button. If the current image is already marked, the image will be unmarked.
Rotate ↻	Each time the **AEL** button is pressed, rotate the currently selected image 90 degrees to the right (clockwise).
Rotate ↺	Each time the **AEL** button is pressed, rotate the currently selected image 90 degrees to the left (counterclockwise).
Exposure Warning	Each time the **AEL** button is pressed, toggle the exposure warning on or off.
Image Mag.	Each time you press the **AEL** button, the magnification is toggled between magnified view and 1:1 view.
Filtering Options (Default)	Each time the **AEL** button is pressed, view filters can be toggled between on and off.

SYSTEM MENU

In [**SYSTEM**], configure the basic settings of the camera.

MEMORY STORAGE FORMAT

If you want to delete all image files or delete unnecessary files other than images, format the memory storage.

Internal Storage
SD Card *1
USB Storage *2

*1 This option cannot be selected if no card is inserted in the camera or if the card is locked.

*2 This option cannot be selected if no USB storage device is connected.

- The storage usage can be checked on each initialization screen.



a. Storage icon
b. Total storage usage / Total storage capacity
c. Data usage

Select the storage you want to initialize, use the ◁▷ button to select [**Format**], and press the ⦿ button to confirm.

If you want to cancel, select [**Cancel**] and press the ⦿ button.

WARNING

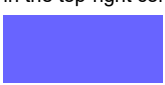
- Formatting will delete all files, including locked images.

MEMORY STORAGE

Select the storage used to record captured images.

	Internal Storage
	SD Card (Default) *1
	USB Storage *2

The icon of the currently selected memory storage is displayed in the top-right corner of the screen.



*1 If no card is inserted in the camera or the card is locked, a message is displayed and recording is not possible.

*2 If no USB storage is connected, a message is displayed and recording is not possible.

STORAGE FULL ACTION

When the SD Card or USB Storage capacity becomes full, the recording destination automatically switches to the internal storage (P.XXX).

Off (Default)	**On**

FILE NAME / NUMBER

The recorded data is assigned to the dedicated file name and file number for both still images and movies.

Still image data (JPEG, DNG)

(STILL)
The still image files you have taken are stored in a sub folder in the DCIM folder, which is named with the date they were taken.

- (Example) If a large number of images are captured on December 5, 2026...

Folder	Sub folder	File Numbering
DCIM	261205_**0**	FP_**0**0001 ～ FP_**0**9999
	261205_**1**	FP_**1**0001 ～ FP_**1**9999
	:	:
	261205_**9**	FP_**9**0001 ～ FP_**9**9999
	261205A**0**	FP_**0**0001 ～ FP_**0**9999
	:	:

- If the last four digits of the file number are greater than 9999, a new sub folder with an incremented last number is created and the file will continue to be stored in the new sub folder.

- The last number of the sub folder and the first number of the file number will be the same number.
- If the last number of the sub folder exceeds 9, the underscore changes to an alphabet (A to) and the last number restarts from 0. (File numbers restart from FP_00001.)
- A file number is followed by the .jpg extension for JPEG data or the .dng extension for DNG data.
- When [**Adobe RGB**] is selected in [**SHOOT**] → [**Color Space**], "FP" of the file name is set to "_F".

File Numbering

You can change the format of the 5-digit file number.

Continuous (Default)	The 5-digit number continues without being reset, regardless of whether the storage is initialized, the memory storage is switched, or the subfolder is changed.
Auto Reset	The 5-digit number starts again from 00001 whenever a new subfolder is created, such as when the storage is initialized or the shooting date changes.

(Example) When 150 images are shot on both December 6 and December 7, 2026:

Continuous

Folder	Sub folder	File Numbering
DCIM	261206_**0**	FP_**0**0001 ～ FP_**0**0150
	261207_**0**	FP_**0**0151 ～ FP_**0**0300

Auto Reset

Folder	Sub folder	File Numbering
DCIM	261206_**0**	FP_**0**0001 ～ FP_**0**0150
	261207_**0**	FP_**0**0001 ～ FP_**0**0150

File Numbering Reset

When [File Numbering Reset] is executed, the leading digit of the file number increments, and the last four digits restart from 0001.

- A new subfolder with the incremented ending number is created, and data is stored in that subfolder.

CAUTION

When the last sub folder number reaches Z9 and the file number reaches FP_99999, you cannot take any more pictures even if there is free space in the storage. Transfer the necessary images to your computer or an external storage, then initialize the memory storage or delete the last folder from your computer.

Movie data (MOV)

(CINE)

Movie files are saved in the CINEMA folder.

The camera ID or reel number at the beginning of the file number can be set as desired. The 3-digit clip number in the middle increments each time recording is performed, and the shooting date is appended to the end.

Folder	File Numbering Camera ID / Reel Number_Clip Number _Shooting Date
CINEMA	A001_001_20220725.MOV ⋮ A001_999_20220725.MOV

- All movie files use the ".MOV" extension regardless of the format.

Camera ID

"**A**" (default) to "**Z**" can be assigned to the camera ID.

Reel Number

"**001**" (default) to "**999**" can be assigned to the reel number.

Clip Numbering

The number increments with each recording.

You can change the clip numbering method.

Continuous (Default)	The last 3-digit number continues sequentially, regardless of whether the storage is initialized, the memory storage is switched.
Auto Reset	If no movie files exist in the folder, such as after initializing the storage, numbering starts from 001. If movie files already exist in the folder, numbering starts from the number following the last movie file.

- In both [Continuous] and [Auto Reset] modes, the clip number restarts from 001 if the camera ID or reel number is changed.

CAUTION

- When the clip number reaches "**999**", even if the card or storage has sufficient space, the message [Cannot allocate file number to a movie file.] is displayed, and it will not be possible to take any more pictures. In such a case, change the camera ID or reel number.

COPYRIGHT INFORMATION

When shooting you can record [Photographer] information, [Copyright] information, and [Note] in the Exif data.

- Each item can be entered using up to 48 single-byte alphanumeric characters and symbols.

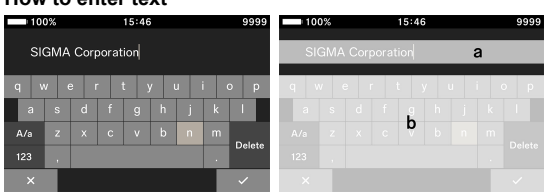
1

Select [**Copyright Information**] → [**Attach Copyright Information**] → [**On**].

2

Select [**Photographer**], [**Copyright Owner**], [**Note**], and enter text following the steps in "How to enter text" below.

How to enter text



a. Input text display area

The text you entered is displayed. The cursor in the input character display area can be moved using the Front/Rear Dial.

b. Keyboard area

Use the touch panel or the ‹^› button to move the cursor, and use the ⦿ button to enter text.

A/a	Switches the keyboard to the alphabet. When the alphabet is displayed, characters are switched between uppercase and lowercase each time this button is pressed.
123	Switches the keyboard to numbers and symbols.
Delete	Deletes the character to the left of the cursor.

3

After entering all the characters, press the "AEL" key to confirm the entered contents.

- Pressing the MENU button cancels the entry and returns to the [Copyright Information] menu.
- If you do not want to record copyright information, select [**Copyright Information**] → [**Attach Copyright Information**] → [**Off**].
- If you want to delete the information you have entered, use the [**Delete**] key to delete all characters and then press the [AEL] button to confirm.

TIP

- You can review the recorded information in the Image Information Window of SIGMA Photo Pro and by EXIF-compatible software.

CAUTION

- When lending or transferring the camera, set "**Attach Copyright Information**" to "**OFF**". It is recommended that the information in each entry item is deleted in such cases.
- We assume no responsibility whatsoever for any difficulties and/or damages resulting from the usage of copyright information.

TIME CODE

(CINE)
For movie shooting, the time code is recorded automatically. Set the time code to be recorded.

- Whether or not to display the time code on the monitor during shooting can be set in [**Clip Info**] under (Display) mode settings (P.XXX).

CAUTION

- This camera does not provide the function that synchronizes with an external device.

TIME CODE

Set the starting time of the time code.

00 : 00 : 00 : 00	**Hour : minute : second : frame**

Select the time code display area, use the buttons to configure the setting, and press the button to confirm.

- To reset, press the MODE button.
- If the count mode is set to "**DF**" (drop frame), the "**:**" between the seconds and frames changes to "**;**".
- The selectable frame values depend on the frame rate.

23.98fps	**24fps**	**25fps**	**29.97fps**	**47.95fps**
0~20	0~20	0~24	0~29	0~20

48fps	**50fps**	**59.94fps**	**100fps**	**119.88fps**
0~20	0~24	0~29	0~24	0~29

- When the frame rate is 23.98 fps, 24 fps, 47.95 fps, or 48 fps, the frame value can only be specified in multiples of four.

RUN MODE

Select the method to count the time code.

REC RUN	Counts only the movie recording time.
FREE RUN (Default)	Counts the total time, including the time in which a movie is unrecorded (including the power-off period).

COUNT MODE

Select the method to count the time code.

DF	(Drop Frame) Corrects an error caused due to a drop frame to record a movie.
NDF (Default)	(Non-drop Frame) Does not correct an error caused due to a drop frame to record a movie.

EXTERNAL INPUT (TC-IN)

When connecting a third-party time code generator, select the appropriate option according to the jack type of the device.

Off (Default)
3.5mm Terminal
USB

- When the generator is correctly connected, the EX icon is displayed in the time code display area, and the time code set on the generator is displayed. If the generator is not connected or any connection error occurs, the EX icon flashes red.
- Be sure to match the frame rate specified in the movie record setting with the frame rate of the generator. For details, refer to the instruction manual of the generator.

CAUTION

- When [**External Input (TC-IN)**] is set to [**3.5mm Terminal**], the microphone connected to the microphone/cable release terminal cannot be used.
- When [**External Input (TC-IN)**] is set to [**USB**], USB audio devices such as USB microphones or USB headphones cannot be used.

HDMI OUTPUT

Specify whether or not to output the time code to a device connected using the HDMI cable.

Off	**On** (Default)

CUSTOM MODE SETTING

- Refer to [Custom Mode] (P.XXX).

CUSTOM QS

(CINE/STILL)

- Refer to [**Quick Set Menu**] (P.XX).

[DISPLAY] MODE SETTINGS

(CINE/STILL)
You can change the amount of information displayed during shooting and add functions that make shooting more convenient.

CUSTOM

To display options, set the mode (Custom 1 to 4) to customize to [**On**], and press the ❯ button.

- Set the modes that you do not want to display to [**Off**].

Information Display

You can choose the amount of photography information displayed.

Off	Minimal	Standard

- In any setting, icons related to warnings are displayed.

Focus Area

Off	On

Lens information

You can display the information on the lens attached to your camera.

Off	Focus *
Focal Length	Focal Length + Focus *

* You can select the unit of focus. Press the ❯ button to select the target on the [Focus Distance Unit] screen.

- The focal length and focus is displayed only with the compatible lenses.
- The focus is not displayed for lenses used via the MOUNT CONVERTER MC-21.

Date / Time

You can display the date and time.

Off	Time
Date	Date + Time

Clip Info

(CINE)

Displays information regarding movie recording.

Off	TC
File Name	File Name + TC

Grid Lines

Grid lines that are useful for determining composition can be displayed.

Off	4×4 (Black)	3×3 (White)
2×2 (Black)	Diagonal (Black)	4×4 (White)
3×3 (Black)	2×2 (White)	Diagonal (White)

Frame Guide

(CINE)

Off	On

- Refer to "**Frame Guide**" (P.XXX).

Center Mark

(CINE)

You can display the center mark that identifies the center of the screen.

Off	Dot	Cross

Electronic Level

Displays the horizontal and vertical tilt of the camera.

Off	On



- When the camera is horizontal or vertical, the indicator turns green.

CAUTION

- The electronic level has a margin of error of approximately ±1°. When the tilt is significant, the margin of error increases, and the electronic level may not function correctly.
- The electronic level does not function correctly when the camera is pointed straight down.

Brightness Level Monitor

Off	On

- Refer to "**Brightness Level Monitor**" (P.XXX).

Exposure Assist

Off	Zebra Pattern	False Color

- Refer to "**Exposure Assist**" (P.XXX).

Audiometer
(CINE)

Off	On *

* A simplified version of the meter without unit labels is displayed.

LCD Off Mode

A mode that turns off the LCD monitor during shooting or when the camera is not being operated. This mode is useful when taking astronomy photographs.

When you set [**LCD Off Mode**] to [**On**], the mode is added to the display mode.

- The LCD monitor lights up for approximately three seconds when a button or dial is operated while the monitor is turned off.
- As with Custom Mode, you can customize the information displayed. Configure the displayed information using the procedure described above.
- The monitor does not turn off in Playback mode, enlarged display mode, or when the setup menu or QS menu is displayed.

TOUCH OPERATION

You can disable operations on the touch panel or change functions that can be operated on the touch panel.

Off	On (Default)

- To disable operations on the touch panel, set the Touch Operation to [Off].
- Even if the Touch Operation is set to [Off], touch operations take effect on the following operations that are performed only on the touch panel.

Slide [**Button Lock**] to Unlock

- If you want to change functions that can be operated on the touch panel, set the appropriate function from [**On**].
- You can change the function for each touch operation. For the meanings of touch operation terms such as [tap] and [double-tap], refer to [ABOUT TOUCH OPERATIONS] (P.XX).

(Shooting settings)

Tap	Double Tap

Tap

Off	Touch AF
Focus Area Shift (Default)	**Auto Tracking AF**

Double tap

Off (Default)	Display Focus Review

(Playback settings)

All Operations

Off	On (Default)

- When electronic viewfinder EVF-21 is being used, it is possible to operate the touch panel while looking into the viewfinder. When EVF-21 is attached to the camera, the following options appear.

EVF (Settings when using EVF-21)

Tap	Double Tap

- The functions operable with [**On**] are subject to / (shooting settings).
- The functions available for playback are subject to (playback settings).

SETTING IN REC

Red Frame Emphasis

(CINE)

To make it clear that recording is in progress, a red border is displayed around the edge of the screen during recording.

Off (Default)	On

Tally Lamp Settings

- Refer to [TALLY LAMP SETTINGS] (P.XXX).

OPERATION IN BUTTON LOCK MODE

- Refer to [BUTTON LOCK FUNCTION] (P.XXX).

SOUND SETTINGS

Set the volume of each item.

- Set each volume level using the Rear Dial or the ◁▷ buttons, and use the ⦿ button to confirm.

Speaker Volume

Set the base volume for each electronic sound.

- The volume can be set to six levels from 0 to 5 (3 is the default).
- Setting 0 results in no sound.

Each volume setting

Press the ▷ button again in [Speaker Volume] to adjust the various volume levels.

Shutter Volume (STILL)	**AF Confirmation Volume**
REC Volume (CINE)	**Timer Volume (STILL)**

- The volume can be set to five levels from 0% to 100% of the [Speaker Volume] setting value.
- If 0% is set, the sound is muted.
- If Speaker Volume is set to 0, no sound will be heard.

Monitoring Volume

Set the headphone volume for movie shooting.

- This setting is only available when headphones are connected.
- The volume can be set to six levels from 0 to 5 (3 is the default).
- Setting 0 results in no sound.

Multi-Ch. Output Settings

You can configure the channel assignment for 4-channel audio recordings during movie playback on the camera (2-channel playback).

L / R Assignment

Ch.1+3 / 2+4 (Default)		
Ch.1 / 2	**Ch.1 / 2**	**Ch.1 / 2**
Ch.3 / 4	**Ch.3 / 4**	**Ch.3 / 4**

TALLY LAMP SETTINGS

REC Notification

(CINE)
Lights up during movie recording to indicate that movie recording is in progress.

Off	**On** (Default)

Self-timer Notification

(STILL)
Flashes while the self-timer is active. The lamp flashes more rapidly two seconds before shooting to indicate when the picture will be taken.

Off	**On** (Default)

Interval Timer Notification

(STILL)
Flashes at approximately one-second intervals while the interval timer is active.

Off	**On** (Default)

AJUST ELECTRONIC LEVEL

Electronic level's tilt can be adjusted.

Place the camera on a flat, level surface and press the ⦿ button.
(The new adjustment value is recorded.)

- To reset, press the MODE button. (The adjustment value returns to the factory default.)

SENSOR REFRESH

If a bright point is recorded in an image, perform Sensor Refresh. This optimizes shooting elements and image processing.

Close the cap, select [**Process**], and press the ⦿ button to confirm.

LCD SETTINGS

You can adjust the brightness and hue of the LCD monitor.

Brightness (LCD Brightness)

Set the brightness using the Rear Dial or the ◁▷ buttons, and use the ⊙ button to confirm.

- The brightness can be set to seven levels (the center value is the default).

Outdoor Brightness Assist

Automatically sets the brightness of the LCD monitor to the maximum level in extremely bright environments such as in clear weather.

[**Outdoor Brightness Assist**] → [**Sunlight Detection**]

Off	**On** (Default)

Hue (LCD Hue)

Adjust [**Red**] and [**Blue**] values while looking at the chart at the bottom of the screen.
Set the brightness using the Rear Dial or the △▽ buttons, and use the ⊙ button to confirm.

- Each can be adjusted across 11 levels, ranging from -5 to +5 (±0 is set as the default).

POWER SETTINGS

Sleep Timer

The backlight of the LCD monitor is automatically turned off if no operations take place for a certain period of time. Press the ▶ button, REC button, or the shutter button to exit Sleep mode.

- You can set the time until the camera enters Sleep mode.

Off	**1 min.** (Default)
10 sec.	**5 min.**
30 sec.	**10 min.**

- When [Off] is selected, the camera does not enter Sleep mode.

Power Off Timer

If the camera remains inactive while in Sleep mode, it automatically turns off. Press the ▶ button, REC button, or the shutter button to cancel Power-off mode.

- You can set the time it takes to shift to Power-off mode.

Off	**5 min.** (Default)
30 sec.	**10 min.**
1 min.	

- Selecting [Off] does not shift to Power-off mode.

CAUTION

- [Sleep Timer] cannot be set to a duration longer than that of [Power Off Timer].

HDMI MONITORING OUTPUT

(STILL)
When monitoring video on a TV or display connected via an HDMI cable (sold separately), you can select whether or not to output information such as icons along with the video.

With Info	Without Info

- Use a commercially available HDMI cable (Ver. 2.1) equipped with an HDMI Type A connector.

HDMI OUTPUT

(CINE)
To set [**HDMI Output**] in CINE mode, first select [**Monitoring Output**] or [**Recorded Image Output**] depending on the purpose. Then, press the ❯ buttons to select the option.

Monitoring Output

Information Display

When monitoring video on a TV or display connected via an HDMI cable (sold separately), you can select whether or not to output information such as icons along with the video.

On	Off

Multi-Ch. Output Settings

- Refer to "**Sound Settings**" (P.XXX).

Recorded Image Output

When recording a movie on an external recorder connected using an HDMI cable (sold separately), configure the video output settings in this item.

Output Format

Set the output signal format of a movie.

RAW	**4:2:2 10bit** (Default)

Resolution

Set the resolution (size) of a movie.

6K	**16:9**	6016 × 3384
4K	**17:9** (DCI 4K)	4096 × 2160
	16:9 (UHD) (Default)	3840 × 2160
2K	**16:9** (FHD)	1920 × 1080

- Use the ◇ button to select 4K (17:9) or 4K (16:9).

Frame Rate

Set the frame rate (the number of frames per second).

23.98 fps	**29.97 fps**	**50 fps**	**119.88 fps**
24 fps	**47.95 fps**	**59.94 fps**	
25 fps	**48 fps**	**100 fps**	

CAUTION

- Make sure that the frame rate matches the frame rate setting of the external recorder.
- The available options may be limited depending on the combination of output signal format, resolution, and frame rate.

USB MODE

- Refer to "**Connect to Computer**" (P.XXX).

CABLE RELEASE SETTINGS

(STILL)
Set operations to use the cable release switch CR-51 (sold separately).

Shutter (Default)	Provides the same operations as the shutter button of the camera.
REC	Provides the same operations as the REC button of the camera.

- The CR-41 cable release switch (sold separately) can also be used.

EVF SETTINGS

Configure various settings for electronic viewfinder EVF-21.

- The following options can only be set when EVF-21 is attached to the camera.

Brightness
Touch Operation
Firmware Update

Brightness

While looking through the viewfinder, use the Rear Dial or the ◇ button to adjust the brightness to a level that is easy to see, then press the ⊙ button to confirm.

- The brightness can be set to seven levels.
- When AUTO is selected, the monitor is automatically adjusted to the easy-to-see brightness according to the exposure data (default: AUTO).

Touch Operation

- [**Touch Operation**] can be available only when [🔧 **SYSTEM**] → [**Touch Operation**] → [**On**] is selected.
- Refer to "Touch Operation" (P.XXX).

Firmware Update

- Refer to "Firmware Update" (P.XXX).

DATE / TIME / AREA

If you have not used the camera for a long time, or if you are using it overseas, set the date, time, and area (region).

- The shooting date and time information is recorded in the image file, so please set it correctly.

1

Select [**Date / Time / Area**].

2

In "**Time Zone**", select the area you want to use.

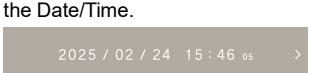
- If there is no corresponding area, refer to the time difference from Coordinated Universal Time (UTC) and select an area with the same time difference.

3

Set the daylight saving time (summer time) as needed. In [**Summer Time**], select [**Off**] or [**On**].

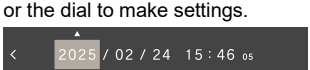
4

In the Date/Time area, press the ▶ button or ⦿ button to set the Date/Time.



5

Use the ◀▶ button to select each item, and use the ▲▼ button or the dial to make settings.



6

Press the ⦿ button to apply the settings. If you do not want to make changes, press the button.

CAUTION

- The camera's built-in clock runs on the electricity stored in the built-in rechargeable battery from the camera battery. If the battery has not been inserted in the camera for a long period of time and has not been charged, you need to reset the built-in clock.
- If you change "**Summer Time**" after setting the time, the set time shifts by one hour.

To change the order of the day, month, and year

You can select the desired one from three date formats: year/month/day, month/day/year, and day/month/year.

In [**Date Format**], select the desired display order.

To switch between 24-Hour Time and 12-Hour Time (AM/PM)

In [**24-Hour Time**], select [**On**] (24-Hour Time) or [**Off**] (**12**-Hour Time).

LANGUAGE / DISTANCE UNIT

Language / 言語

You can set the language displayed on the menu screen, etc.

You can select your desired one from 17 languages.

English	English (Default)	**Русский**	Russian
日本語	Japanese	**Nederlands**	Dutch
Deutsch	German	**Polski**	Polish
Français	French	**Português**	Portuguese
Español	Spanish	**Dansk**	Danish
Italiano	Italian	**Svenska**	Swedish
简体中文	Simplified Chinese	**Norsk**	Norwegian
繁體中文	Traditional Chinese	**Suomi**	Finnish
한국어	Korean		

Distance Unit

You can select the unit of focus displayed in the shooting information.

M (Meters)	**FEET**

INFORMATION

Camera	Lens	EVF *

* Displayed only when attached.

You can check the following information about the camera:

Model Name, Serial No.
Firmware version, Sensor temperature
Use the ‹› button to view various authentication information and authentication marks.

- Other authentication information and authentication marks not displayed on the [**Information**] screen can be found on the rear of the LCD monitor, on the product box, in the Instruction Manual, etc.

You can check the following information about the attached lens:

Lens Name, Serial No.,
Firmware version

You can view the following information regarding the electronic viewfinder.

Model Name, Serial No.
Firmware version

FIRMWARE UPDATE

You can update the firmware for your camera, the attached lens, or the electronic viewfinder. For details on the firmware update status and update method, refer to our website.

sigma-global.com/en/support/

SECURITY SETTINGS

You can enable the security lock to restrict access to specific functions.

- After the security lock is unlocked, it remains unlocked until the power is turned off or the power-off timer turns off the camera.

CAUTION

- If you fail to unlock the security lock multiple times, you will not be able to unlock it for a certain period. Please wait a while before trying again.

LOCK / ACCESS SETTINGS

Reset the unlock method or set the items to be locked.

- If the security lock is enabled, you must unlock the security lock to access this item.

Reset Unlock Method
Lock Firmware Update
Lock Playback

Reset Unlock Method

If you did not configure the security lock during initial setup, or if you want to change the unlock method, use this option to configure it again.

For details on the setting procedure, refer to [Setting the security lock] under [CONFIGURING THE INITIAL SETTINGS] (P.XXX).

Lock Firmware Update

Prevents accidental firmware updates.

Off	**On** (Default)

Lock Playback

Locks image playback on the camera.

Off (Default)	**On**

INITIALIZE SECURITY CREDENTIALS

Resets the security settings and disables the security lock.

Select [**Format**] and use the ⦿ button to confirm.
If you want to cancel, select [**Cancel**] and press the ⦿ button.

MANAGE SETTINGS

SAVING SETTINGS

- Refer to "**Saving/Loading Settings**" (P.XXX).

LOADING SETTINGS

- Refer to "**Saving/Loading Settings**" (P.XXX).

RESET SETTINGS

Restores the camera settings to the default.

1

Select the desired reset method from [**Reset Settings**].

Capture Settings	All settings in [/ **SHOOT**] are reset.
Play Settings	All settings in [**PLAY**] are reset.
System Settings	All settings in [**SYSTEM**] except [**Date / Time / Area**] and [**Language**] are reset.
Initialize	The internal storage is formatted, and all data is erased. All settings, including the camera's internal clock, are also reset.

2

Select [**Reset**] (**Format**) and use the ⦿ button to confirm.
If you want to cancel, select [**Cancel**] and press the ⦿ button.

WARNING

- Executing [Initialize] also erases image files stored in the internal storage. Before proceeding, make sure that no necessary data remains.

USB CONNECTION

This camera is equipped with two USB ports.

Port 1 (top): USB 2.0 Type-C
Port 2 (bottom): USB 3.2 Type-C

The compatible devices, intended uses, and USB cable specifications for each port are as follows.

Port 1 (top)	**Port 2** (bottom)	
○	○	**Charging and Power Supply** Use a USB AC adapter and a USB Type-C to Type-C cable that support USB PD (27 W or higher). * Power cannot be supplied if a cable other than a USB Type-C to Type-C cable is used.
×	○	**High-Speed Data Communication** PCs, smartphones, SSDs, etc. For data transfer, use a USB Type-C to Type-C cable that supports USB 3.2 (10 Gbps) or higher. * USB 2.0 cables can also be used for data transfer, but the transfer time will be longer.
○	○	**Audio Equipment** USB Audio Class (UAC) Supports audio input and output. The supported standards are UAC1.0 and UAC2.0. * USB-connected audio devices cannot be used simultaneously.
×	○	**Web camera (this device), etc.** USB Video Class (UVC) Supports video output. * Other video output functions are not supported.
○	○	**CR-51 CABLE RELEASE SWITCH**

CONNECTING TO THE COMPUTER

Connect the camera to a computer via a USB cable to transfer images, charge the camera, or use it as a web camera.

USB CONNECTION SETTINGS

Configure the communication mode used when the camera is connected via a USB cable.

[🔧 **SYSTEM**] → [**USB Mode**]

Select When Connecting (Default)	This function is selectable when this product is connected to a device. Press the ◁▷ buttons to select the target, and press the ⦿ button to apply the setting.
Mass Storage (Internal Storage)	Configure this setting when transferring images from internal storage to a computer.
Mass Storage (SD Card)	Configure this setting when transferring images from an SD card to a computer.
Video Class (UVC)	Set this option to use this product as a Web camera.
Charging Only	Configure this setting when using the computer only for charging or supplying power.

CAUTION

- You cannot change the USB mode while the camera is connected to the computer. Set the desired [USB Mode] before connecting the camera to the computer.

TRANSFERRING IMAGES TO A COMPUTER

Transfer and save images recorded in the internal storage or on a memory card to a computer.

1

Connect the camera to the computer using a USB Type-C cable. Connect the cable to USB port 2 (bottom) on the camera.

- If **[USB Mode]** (P.XXX) is set to [**Select When Connecting**] (default), the USB Mode Selection screen is displayed.
- The USB Mode Selection screen is not displayed while the setup menu is displayed.

2

Use the ◁▷ buttons to select the storage containing the images you want to transfer, [**Mass Storage** (📷)] or [**Mass Storage** (▭)], and press the ⊛ button to confirm.

- The camera is recognized by the computer as a USB drive.
- Press the MENU button to cancel to return to the previous screen. Only charging or power supply is performed.
- If you want to specify [**Mass Storage**] in [**USB Mode**], do so before connecting the camera to the computer.
- If [**Mass Storage** (SD Card)] is selected when no SD card is inserted in the camera, the USB Mode Selection screen is displayed.

3

Using the computer, copy or move still image files from the DCIM folder and movie files from the CINEMA folder.

- To disconnect, remove the hardware from your computer.

TIP

- You can transfer images using SIGMA Photo Pro. For details, refer to the SIGMA Photo Pro help.

WARNING

- If the computer enters Sleep mode during processing, the currently transferred data may be damaged. Configure a setting to prevent the computer from entering Sleep mode.
- The Power Off Timer function does not work while the USB cable is being connected.

USING THIS PRODUCT AS A WEB CAMERA

This product can be used as a Web camera.

1

Connect the camera to the computer using a USB Type-C cable. Connect the cable to USB port 2 (bottom) on the camera.

- If [**USB Mode**] (P.XXX) is set to [**Select When Connecting**] (default), the USB Mode Selection screen is displayed.

2

Use the ◁▷ button to select [**Video Class (UVC)**] and press the ⊛ button to confirm.

- If you want to set [**Video Class (UVC)**] in [**USB Mode**] beforehand, do so before connecting the camera to the computer.

- Switch between modes as necessary.
- The unavailable items are displayed in dark gray.
- The Image Magnification function is not available.
- For information on the camera or microphone setting, refer to Help or other references of the software you are using.
- Depending on your software, you may need to set a resolution on your camera. If this is the case, set it before connecting.

CAUTION

- The following buttons are not available.

REC Button, Shutter Button, ▶ Button

REFERENCE

This section provides the other useful functions, optional accessories, and the camera specifications.

SCREENSHOT FEATURE

Any screen of the LCD monitor can be saved as a still-image file. Screenshots can be used in various ways, such as to capture a set-up menu screen to use in your notes.

On the screen you want to capture, press the ⦿ button while holding down the |□| button. (A white image appears for a second when an image is captured.)

- You can also capture an image by holding down the |□| button while pressing one of the following buttons.

▶ Button, COLOR Button, MODE Button

- Assign the desired screen to a custom button (P.XXX) to capture it with one action.
- Images through electronic viewfinder **EVF-21** can also be captured.
- When captured images are played back, the [**SCREENSHOOT**] icon appears.
- Captured images are saved in an image size of 1024 x 682 and in the JPEG format.
- The name of the file of captured images is "**SS__XXXXX.JPG**".

CAUTION

- There may be cases where the number of times images can be captured is limited, or images cannot be captured due to setting status or image processing.
- There may be cases where images cannot be captured in succession when shooting movies.
- The following screens cannot be captured using the custom button.

AEL (Pressed), AFL (Pressed), AEL + AFL (Pressed)

- The following screens cannot be captured.

Interval timer active, Self-timer active, Mass storage connected

OPTIONAL ACCESSORIES

ELECTRONIC VIEWFINDER EVF-21

EVF-21 is a sophisticated electronic viewfinder with a high-definition 5.76 million dot organic EL display (OLED). Although it is an external accessory, it has a unified design. A 90-degree tilt feature increases freedom when shooting. The viewfinder has a headphone jack that enables sound to be monitored. It also has a large eyecup that blocks external light.

LCD VIEWFINDER LVF-21

This is a FP2 dedicated viewfinder that magnifies LCD monitor by 2.5x This function cuts off outside light, so you can easily check the focus or composition even while outdoors. (With base plate BPL-21 attached)

HAND GRIP HG-11

This is a dedicated grip designed to improve handling stability. Its design also complements the FP series.

BATTERY CHARGER BC-91

A dedicated battery charger for the Li-ion Battery Pack BP-91. Compatible with USB PD (USB Power Delivery). (Charging time: approx. 180 minutes)

*To charge using the Battery Charger BC-91, please prepare the following:
a: A commercially available external power supply (such as a USB AC adapter) or a computer that supports USB PD (USB Power Delivery) output of 27W or higher.
b: A commercially available USB Type-C cable that supports USB PD 27W or higher.

*For details, please refer to the Battery Charger BC-91 Instruction Manual.

DC CONNECTOR CN-91

An adapter used to power the camera with an external power supply without using a USB port.

*To supply power via the DC Connector CN-91, a separate external power supply and USB cable are required. For details, please refer to the DC Connector CN-91 Instruction Manual.

CABLE RELEASE SWITCH CR-51

Connects to the USB port to allow remote shutter release without touching the camera. (Cable length: approx. 1m / 3.3ft.)

HOTSHOE UNIT HU-21

A hot shoe adapter that allows you to mount a clip-on flash. It features communication contacts for OM SYSTEM / LUMIX flashes. When a compatible flash is attached, TTL auto flash exposure and wireless flash photography become available. Certain Panasonic audio devices can also be attached.

BASE PLATE BPL-21

A base plate dedicated to the FP2. In addition to being used for attaching the LCD Viewfinder LVF-21, it allows you to connect general video recording accessories using a 3/8-inch screw. (Included with the LCD Viewfinder LVF-21)

TROUBLESHOOTING

If you have a problem with your camera or cannot take good pictures, consult the list below as you check the camera before requesting repairs.

Nothing is displayed on the color LCD monitor.

Battery is exhausted.

► Replace the battery. (P.XX)

Camera is in LCD Off mode (P.XXX).

► Press the shutter button “half-way” or any other button.

Autofocus does not operate.

The AF/M switch on the lens body is set to **M**.

► Set the AF/M switch on the lens to **AF**. (P.XX)

Lens is not properly mounted to the camera body.

► Mount the lens to the camera body correctly. (P.XX)

When the [**Half-pressed AF-ON**] is set as [**Off**].

► Please select [**On**] in the [**Half-pressed AF-ON**] setting. (P.XXX)

The lens being used is not compatible with auto focusing.

► Check whether or not the lens is compatible on our website. (P.XX)

The camera has turned off automatically.

Power Off Timer is activated.

► The Power Off Timer function is set in order to conserve battery power. If it is inconvenient, please set the Power Off Timer to [Off]. (P.XXX)

Cannot shoot or store images.

The storage capacity of the selected recording media is full.

► Delete unnecessary images to free up space. (P. XXX)

The specified recording media is not inserted.

► Make sure the inserted recording media matches the selected recording destination. (P. XXX)

Pictures are coming out blurred

AF may not be activated when the shutter was pressed.

► Press the shutter button “half-way” and press it after the focusing point is illuminated in green. (P.XX)

The AF/M switch on the lens body is set to **M**.

► Set the AF/M switch on the lens to **AF**. (P.XX)

Camera shake is occurred.

► Increase the ISO sensitivity or use a tripod. (P.XX)

Cannot delete images.

Images may be locked.

► Unlock the images. (P.129 - 131)

Incorrect date and time is shown.

Date and time setting may be incorrect.

► Enter the correct date and time in the Set-up Menu. (P.XXX)

Error Code appears.

It is not possible to continue shooting due to an internal error.

► Please contact your nearest authorized SIGMA subsidiary / distributor.

sigma-global.com/en/world-network/

SPECIFICATIONS

Product Name		Sigma FP2
Type	Type	Interchangeable-lens Mirrorless Type Digital Camera
	Memory Media	Internal Memory (Approx. 70 GB), SDXC memory card (UHS-Ⅱ supported), Portable SSD (USB 3.2 connection, USB bus power supported)
	Lens Mount	L-Mount
Image Sensor	Type	35 mm full-frame (35.9 mm x 23.9 mm) partially stacked CMOS sensor
	Camera Effective Pixels / Total Pixels	Approx. 24.5 MP / Approx. 26.8 MP
	Aspect Ratio	3: 2
	Still Image File Format	Lossless compression RAW (DNG) data 14 bit / JPEG (Exif3.0), RAW (DNG) + JPEG recording is possible
	Image Aspect Ratio	[21:9], [16:9], [3:2], [A Size], [4:3], [6x7], [1:1]
File Size	RAW	6,016 x 4,012
	JPEG	6,016 x 4,012
Crop		3,840 x 2,560 (Equivalent to Approx.1.5 times the focal length)
Movie Recording Format	Movie Format	ProRes RAW HQ, ProRes RAW (12bit) / MOV: H.264, H.265, L-Log
	Audio Format	Linear PCM (4ch 96 kHz, 2ch 192 kHz / 24 bit), Float (4ch 96 kHz, 2ch 192 kHz / 32 bit)

	Record Format / Frame rate	6K* / 23.98, 24, 25, 29.97, 47.95, 48, 50, 59.94 fps *Cannot be used in conjunction with EIS 4K / 23.98, 24, 25, 29.97, 47.95, 48, 50, 59.94 fps (100 fps and 119.88 fps are also supported in Crop mode) 2K / 23.98, 24, 25, 29.97, 47.95, 48, 50, 59.94, 100, 119.88 fps *47.95fps: ProRes RAW HQ / ProRes RAW only; 48 fps: Not available in H.264. *ProRes RAW HQ / ProRes RAW: Up to 6K 29.97 fps.
	Video Aspect Ratio	[3:2], [16:9], [17:9], [4:3] *2K: [16:9] only
	Continuous Shooting Enable Time	2 hours
Focus	AF System / Focus Mode	Image Plane Phase-Detection AF + Contrast detection system / Single AF, Continuous AF, Tracking AF, Manual Focus
	AF Sensitivity Range / AF Area	-5~18 EV (F1.4: ISO 100) / 6-steps
	Other Focus Functions	Subject Tracking AF (Human / Dog + Cat + Bird, with Eye AF), AF+MF, MF Magnification, Focus Peaking, Release / Focus Priority, Focus Ring Control (Non-linear, Linear)
Exposure Control	Metering System	Evaluate, Spot Metering
	Metering Range	-5 ot 18 EV (50 mm F1.4: ISO 100)
	Still Shooting Mode	(P) Program AE, (S) Shutter Speed Priority AE, (A) Aperture Priority AE, (M) Manual

	Movie Shooting Mode	(P) Program AE, (S) Shutter Speed Priority AE, (A) Aperture Priority AE, (M) Manual
	ISO Sensitivity (Recommended exposure value)	Base ISO [Still] ISO 320 / 2500 [Movie] MOV: ISO 320 / 2500, Log / RAW: ISO 1250 / 10000 Settable Range [Still] ISO 100-102400 / Expanded sensitivity ISO 6, 12, 25, 50 [Movie] MOV: ISO 100-102400 Log / RAW: ISO 1250-102400 / Expanded sensitivity ISO 320, 640
	Exposure Compensation	±5 EV (in 1/3 stop increments)
	AE Lock	Half-press the shutter button, or press the AEL button (setting change required)
	Exposure Bracket	3 shots, 5 shots stage exposure 3EV (1/3 Step, Standard→Underexposure →Overexposure) (Sequence changeable)
	Exposure Assist	Brightness Level Monitor (Waveform, Histogram), Zebra Pattern, False Color
Image Stabilization System		Electronic Image Stabilization (EIS) for Video Only
White Balance		9 types (Auto, Auto [Lighting Source Priority] , Incandescent, Fluorescent, Daylight, Overcast, Flash, Shade, Manual [50 K steps]) , Custom 1-10 settings can be added

Shutter	Type	Electronic shutter
	Shutter Speed	1/25600 - 30 seconds, Bulb (up to 5 minutes)
	Self Timer	2 sec., 10 sec.
Drive	Drive Modes	Single Capture, Continuous, Self-timer, Interval Timer (Movie output availiable), Exposure Bracketing, Focus Bracketing, White balance Bracketing
	Continuous Drive Speed	20fps、8fps、5fps、3fps
	Number of Recordable Frames	20 fps: JPEG 200 frames, DNG 180 frames 8 fps: JPEG 3000 frames, DNG 630 frames
Monitor	Type / Coverage	Tilting TFT color LCD, Aspect Ratio 3:2, 3.15 type, Approx. 2.1M dots , Electrostatic capacitance system touch panel / Approx. 100%
	Angle Adjustment	Approx. +90～-45 degrees
Color Mode		13 types Standard, Rich, Calm, Powder Blue, Warm Gold, Teal and Orange, FOV Classic Blue, FOV Classic Yellow, Forest Green, Sunset Red, Cinema, 709 Look, Monochrome
Flash	Flash Mode	TTL Auto Exposure, Manual Flash, Wireless Flash, Multi Flash
	Optional Functions	Red-eye Reduction, Slow Synchronization, Rear Curtain Synchronization
	Flash Exposure Compensation	Max. ±3 EV in 1/3 EV step increments

	Flash Sync. Speed	Max. 1/50 sec. * 1/60 sec. or less at crop mode
	External Flash Support	Available when the HOT SHOE UNIT HU-21 is mounted. (shares specifications with OM System / Lumix)
Director's Viewfinder	Supported Cameras	ARRI: ARRICAM / ARRIFLEX, ALEXA LF / ALEXA Mini LF, ALEXA Mini, AMIRA, ALEXA 35 Xtreme SONY: VENICE / VENICE 2 6K, VENICE 2 8K, BRANO RED: MONSTRO 8K, HELIUM 8K, DRAGON 6K, EPIC MX 5K, GEMINI 5K, V-RAPTOR XL [X], KOMODO X
	Desqueeze Ratio	1.25x、1.3x、1.33x、1.5x、1.6x、1.65x、1.8x、2.0x
Other Function		Save / Load Settings via QR code, Screenshot, Webcam, In-camera DNG Development, Still image capture from recorded movie files, Fill Light (Supports only in-camera DNG Development), Gyro flow support
Built-in Microphone / Speaker		Stereo Microphone, Monaural Speaker
Display Language		English, Japanese, German, French, Spanish, Italian, Simplified Chinese, Traditional Chinese, Korean, Russian, Dutch, Polish, Portuguese, Danish, Swedish, Norwegian, Finnish

Interface	USB	Port 1: USB 2.0 Type-C (UAC, Cable Release, EVF, Charging / Power Delivery) Port 2: USB 3.2 Type-C (Mass Storage, UVC, UAC, Cable Release, Charging / Power Delivery)
	HDMI	Type A (Ver.2.1)
	REMOTE	Cable Release (via USB)
	Timecode Input	Also used as an external microphone terminal
	External Microphone Terminal	Φ3.5 mm stereo mini jack (Plug-in power support), USB (UAC 2.0 support)
	Headphone Output Terminal	Supported via USB
	Flash-synchro Terminal	Dedicated terminal (with HOT SHOE UNIT HU-21 mounted)
Dust and Splash Resistant Structure*		Provided *Although this construction allows the camera to be used in light rain, it is not the same as being waterproof.
Power	Power	Li-ion Battery Pack BP-91, USB PD*, DC CONNECTOR CN-91* * USB AC adapter supporting 27W or higher is recommended.
	Number of Recordable Still Images	Approx. 370 images
	Minutes of Recordable Movie Shooting	Approx. 130 min.
Dimensions and Weight	Dimensions (W x H x D)	Approx. 112.8 x 69.9 x 41.8 mm / 4.4 x 2.8 x 1.6 in.
	Weight	Approx. 460 g / 16.2 oz. (including SD card and battery) , Approx. 376 g / 13.3 oz. (Camera Body Only)
Operating Environment	Operating Temperature	32 to 104 °F / 0 to + 40 °C
	Operating Humidity	85 % or less (non-condensing)

* Specifications are subject to change without notice.

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